

MICHIGAN STATE

U N I V E R S I T Y

02/06:

Design Day Booklet Production Process

The Capstone Experience

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Michigan State University

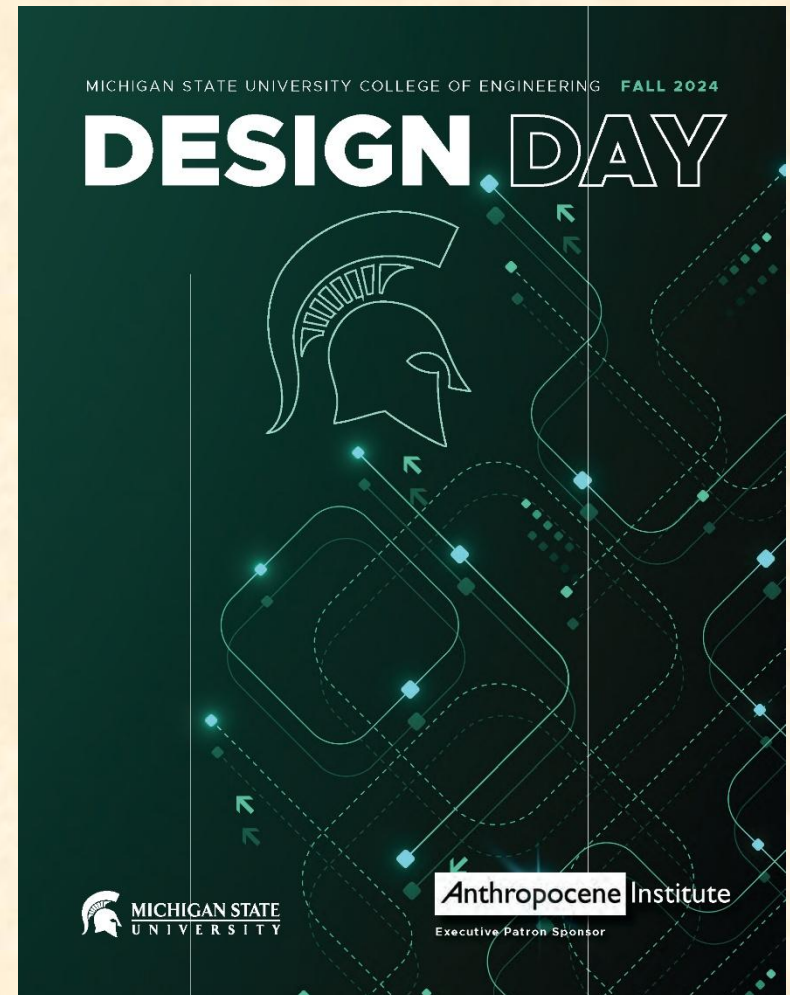
Spring 2025



*From Students...
...to Professionals*

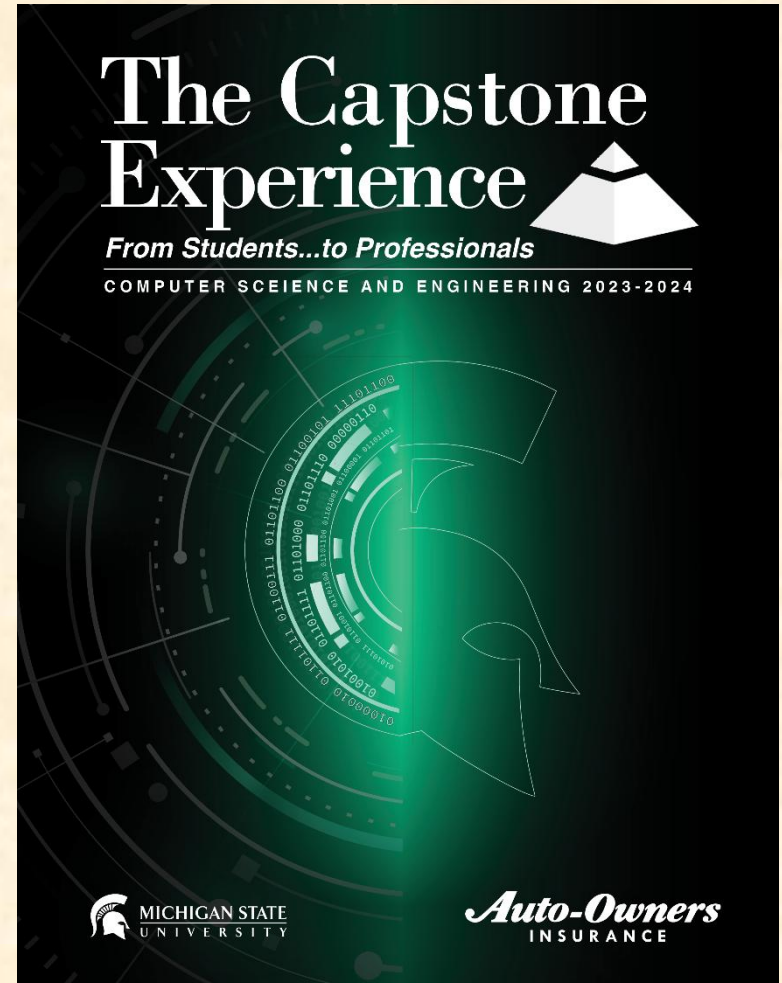
Design Day Booklet

- Professional Publication
 - Corporate Relations
 - Alumni Relations
 - Recruiting
 - Keepsake for You
- Contents
 - Schedule of Events
 - Project Descriptions



The Capstone Experience

- Professional Publication
 - Corporate Relations
 - Alumni Relations
 - Recruiting
- Contents
 - Capstone Projects
 - Academic Year



Team Project Page

- Template Distributed by Dr. D.
 - Sponsor's "Official" Name
 - Sponsor Logo
 - Project Official Title
 - MSU Team Photo
 - MSU Team Members' Names
 - Corporate Sponsors' Names
 - Headers and Footers
 - Posted On [Downloads](#) Page
- Template Completed by Team
 - Project Description
 - Artwork
 - Use Microsoft Windows Office 365 Version of Word.

Computer Science and Engineering

Volkswagen Group of America VW Car-Net Electric Vehicle Route Planner

Volkswagen Group of America is the North American operation headquarters and subsidiary of the Volkswagen Group, one of the world's leading automobile manufacturers. They are comprised of 8,000 employees in the United States and sell their vehicles through a 1,000-strong dealer network.

Electric vehicles are one of the latest innovations in the automobile industry; Volkswagen, who just released their first electric vehicle, the ID.4, want a way to show potential customers the benefits of electric vehicles compared to gas powered vehicles as well as address and correct some of the common misconceptions many people have about electric vehicles.

Our VW Car-Net Electric Vehicle Route Planner application is displayed in Volkswagen dealerships and educates potential car buyers about the benefits of buying an electric vehicle.

A major concern many buyers have about electric vehicles is the car's range and charging options available on the road. Our application generates driving routes for gas vehicles and electric vehicles that stop at charging stations. Buyers can compare these various routes with respect to route length, route path, fuel costs and carbon emissions.

Our application also allows for extensive customizability including sliders to adjust starting battery charge, climate control, temperature and weather conditions to account for the effects these factors have on battery consumption.

Our Electric Vehicle Route Planner helps assuage the fears of potential electric vehicle buyers by showing them that their daily routine will have minimal disruptions, and significant benefits if they switch to an electric vehicle.

Our Electric Vehicle Route Planner is developed as an Android application that utilizes API calls to handle route altering attributes and route generation. Our application is written in Kotlin.



Michigan State University Team Members (left to right)	Volkswagen Project Sponsors
Joey Kelly Grosse Ile, Michigan	Shelly Desmet Auburn Hills, Michigan
Andrew Smigilecki Ann Arbor, Michigan	Igor Eremov Auburn Hills, Michigan
Zosha Korzecke East Lansing, Michigan	Frank Weith Auburn Hills, Michigan
Michael Lin Rochester Hills, Michigan	
Erich Halrston East Lansing, Michigan	

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Team's Job

Note: Many slides in this deck are "reference slides," hence wordy.

- Read instructions carefully.
- Check everything.
- Use Microsoft Windows Office 365 version of Word.
- Make a checklist.
- Write the project description.
- Read the instructions carefully.
- Provide the artwork.
- Read the instructions carefully.
- Update the project description and artwork.
- Make a checklist.
- Check everything 100 times.
- Read the instructions carefully.
- Make a checklist. ← Key



Project Description

[1 of 3]

- Read the instructions carefully. ← Have I mentioned this yet?
- Newspaper / Magazine Style
- Target Audience == General Public
- Do NOT Start...
 - “Our project is...”
 - “Our sponsor asked us to...”
 - “Our project aims to...”
- Use present tense throughout.
- Write as though your project is complete.
 - It works.
 - Your sponsor is using it.
- Fill the entire textbox, no less, no more.
- Read Past Examples
 - [The Capstone Experience Booklet](#)
 - Previous Design Day Booklets ([Design Day > Booklet](#))
 - [MSU Men’s Basketball](#)
- Make a Checklist ← Have I mentioned this yet?



Project Description

[2 of 3]

- Beginning
 - Sponsor Overview
 - 2 to 3 Lines
- Middle
 - The Problem & Your Solution
(Never write anything negative about your sponsor.)
 - Magazine Style
 - Paragraphs
 - Many Short
 - Not Few Long
 - Understandable by Non-Technical Person
- End
 - Technical Jargon
 - 2 to 3 Lines



Project Description

[3 of 3]

Volkswagen Group of America is the North American operation headquarters and subsidiary of the Volkswagen Group, one of the world's leading automobile manufacturers. They are comprised of 8,000 employees in the United States and sell their vehicles through a 1,000-strong dealer network.

Electric vehicles are one of the latest innovations in the automobile industry. Volkswagen, who just released their first electric vehicle, the ID.4, want a way to show potential customers the benefits of electric vehicles compared to gas powered vehicles as well as address and correct some of the common misconceptions many people have about electric vehicles.

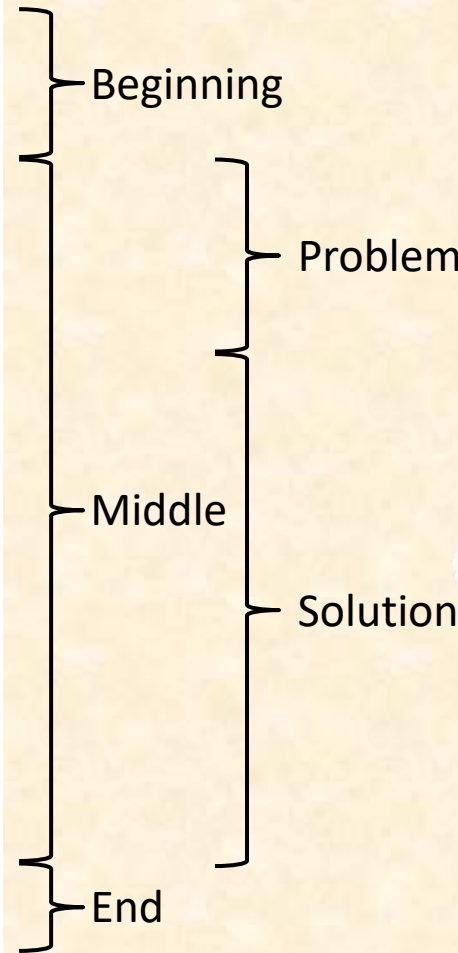
Our VW Car-Net Electric Vehicle Route Planner application is displayed in Volkswagen dealerships and educates potential car buyers about the benefits of buying an electric vehicle.

A major concern many buyers have about electric vehicles is the car's range and charging options available on the road. Our application generates driving routes for gas vehicles and electric vehicles that stop at charging stations. Buyers can compare these various routes with respect to route length, route path, fuel costs and carbon emissions.

Our application also allows for extensive customizability including sliders to adjust starting battery charge, climate control, temperature and weather conditions to account for the effects these factors have on battery consumption.

Our Electric Vehicle Route Planner helps assuage the fears of potential electric vehicle buyers by showing them that their daily routine will have minimal disruptions, and significant benefits if they switch to an electric vehicle.

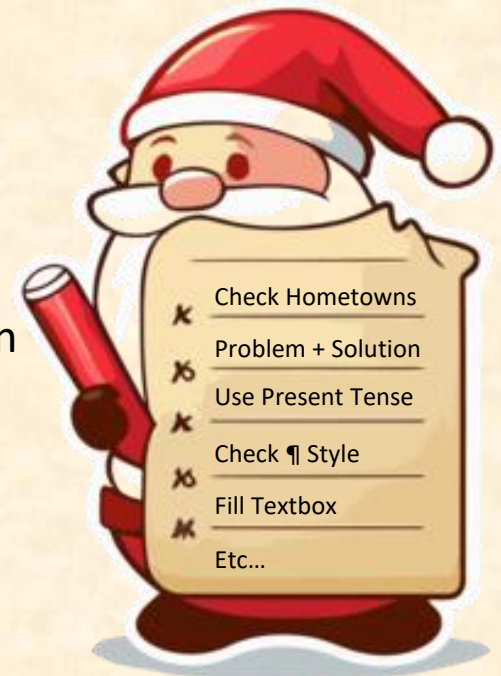
Our Electric Vehicle Route Planner is developed as an Android application that utilizes API calls to handle route altering attributes and route generation. Our application is written in Kotlin.



Never write anything negative about your sponsor.

Emulate Santa Claus.

- Make a list.
- Check it many times.



Example Project Description: Spartan Basketball Player Timer

Michigan State University's Men's Basketball is elite, one of the top programs in the NCAA.

NCAA Division I basketball is very competitive. Although it may not be apparent to the casual observer, every detail of each game is carefully planned and scripted.

One aspect of a game plan is that of playing times. For each player, the coaches determine target times for how long he can play at a stretch, how long he needs to rest before playing again, and the total amount of time he should play in a game.

Developed with Coach Tom Izzo, our Spartan Basketball Player Timer is used by the basketball staff on the bench during the game.

When a player enters the game, his playing time is displayed with a solid green background. When his target playing time goes under two minutes, it is displayed in yellow. When the time goes below zero, it is displayed in red.

The color coding of times provides visual cues that can be seen by the coaches at a distance. If there are many yellow or red boxes, the coaches begin to plan substitutions.

A game summary for all the players can be displayed at any time whether the game clock is running or stopped.

Our software runs on a Microsoft Windows Tablet PC about the size of a traditional clipboard only slightly thicker. With no mouse or keyboard, all input is done with a pen.

Spartan Basketball Player Time is written in Visual Basic. The underlying database is Microsoft Access.



Artwork

[1 of 7]

- Read the instructions carefully.
- Must be of Your Working Software ← Note
- NOT Screen Mockups ← Note
- Take 2 to 3 screenshot(s) of working software.
 - Use eye-catching examples.
 - Avoid boring or trivial things.
 - Splash Screens
 - Login Screens
- Fill up the entire artwork space. Whitespace is bad!
- Overlap artwork if necessary.
- Include “framing” for web and mobile apps.
 - Browser with Window Frame
 - iPhone, iPad
 - Android Phone or Tablet
 - NOT Laptop or Desktop (Why not?)
 - See <https://mockuphone.com>.
 - Eliminate frame shadows.



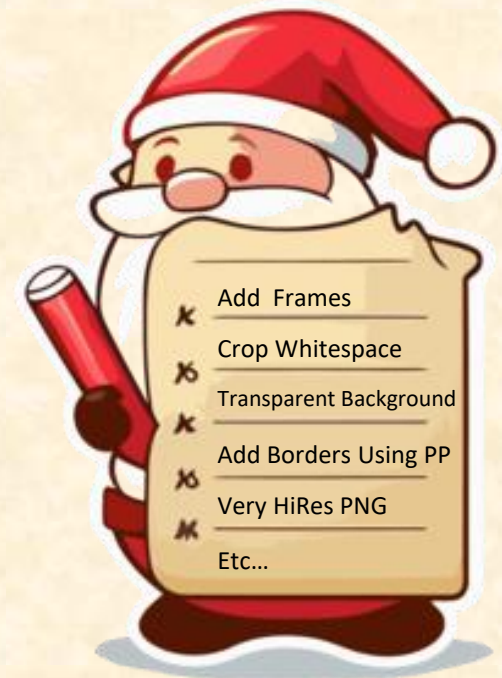
Artwork

[2 of 7]

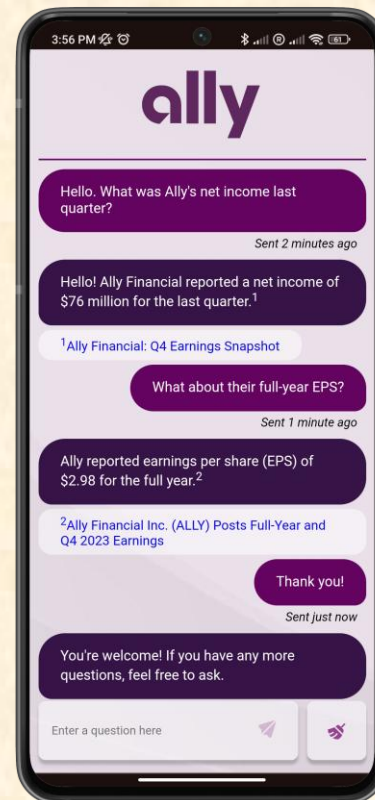
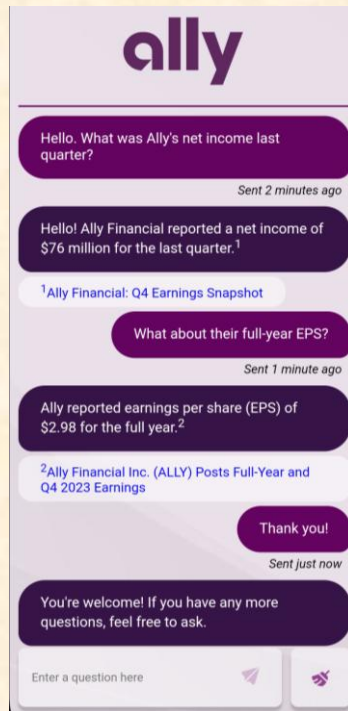
- Read the instructions carefully. ← Have I mentioned this yet?
- Add borders if necessary or if unsure.
 - If Blends Into White Background
 - Create a single PNG for each piece of artwork using PowerPoint.
 - Read the instructions.
- Capture and provide very high-resolution images.
- Preserve aspect ratios.
- Crop to eliminate transparent “borders.”
- Eliminate all surrounding “whitespace.”
- Use [paint.net](https://www.paint.net/) for turning solid white space into transparent space and cropping.
- See examples.
 - The Capstone Experience Booklets in Lab
 - [Design Day Booklet Feedback, Fall 2022](#)
 - [Design Day Booklet Feedback, Spring 2023](#)
 - [Design Day Booklet Feedback, Fall 2023](#)
 - [Design Day Booklet Feedback, Spring 2024](#)
 - Previous Design Day Booklets ([Design Day > Booklet](#))
 - [MSU Men’s Basketball](#)
- Make a Checklist ← Have I mentioned this yet?

Emulate Santa Claus.

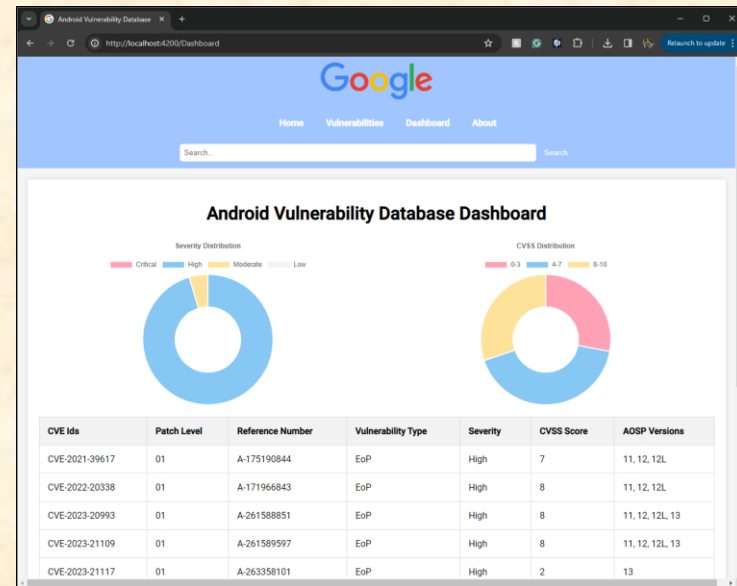
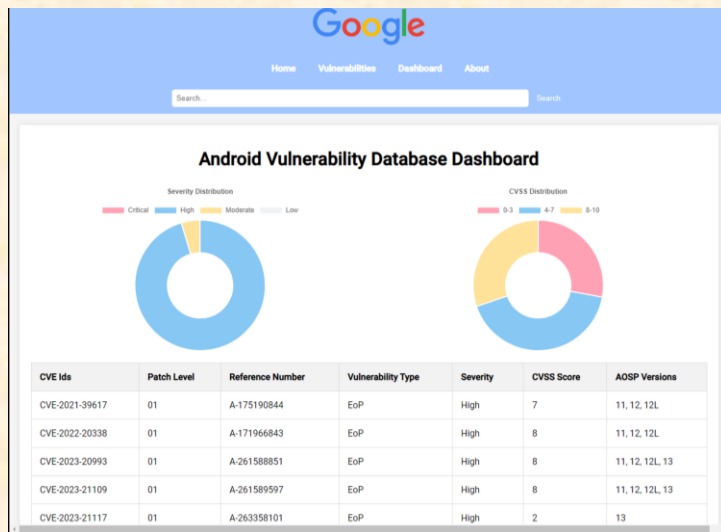
- Make a list.
- Check it many times.



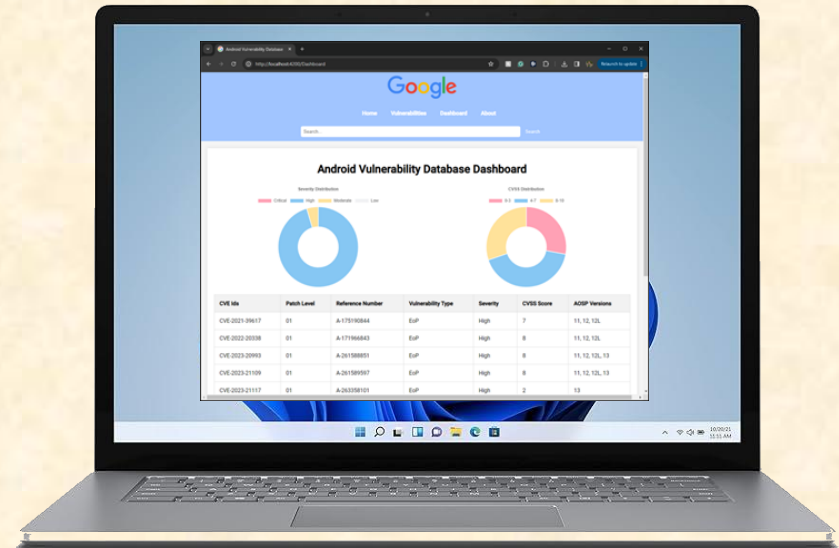
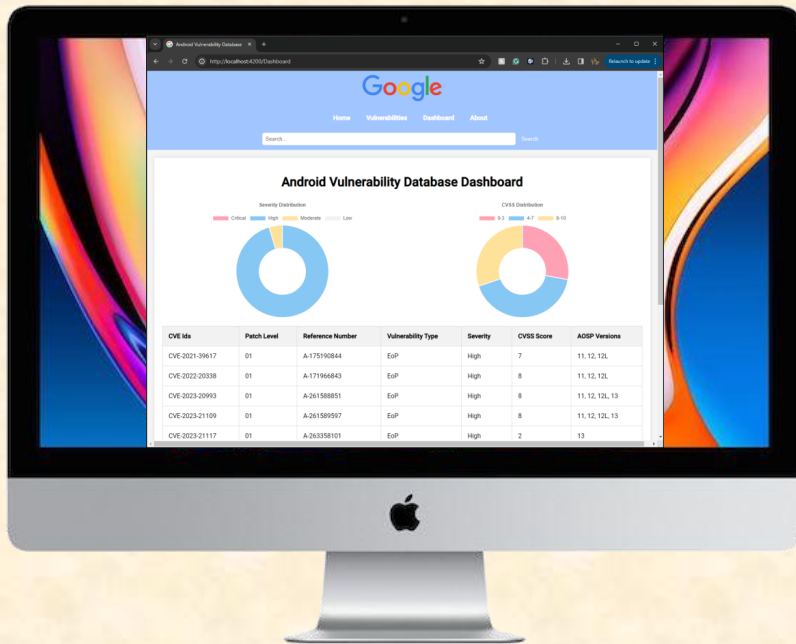
Embedded Mobile App



Embedded Browser App



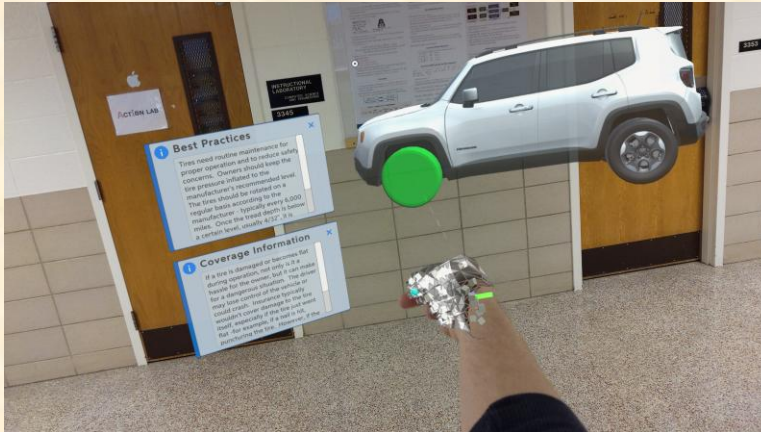
Embedded Browser App



Why not?

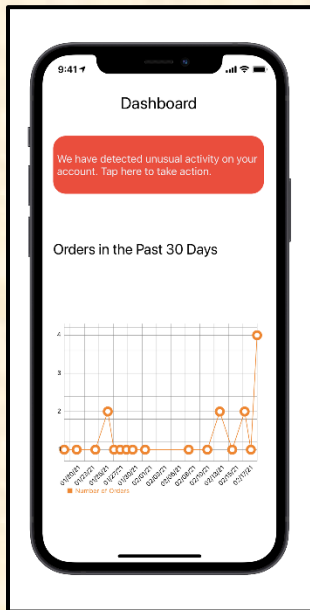


Non-Embedded VR/AR App



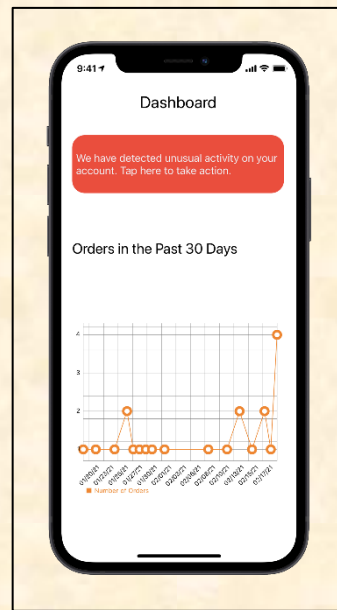
Artwork

[7 of 7]



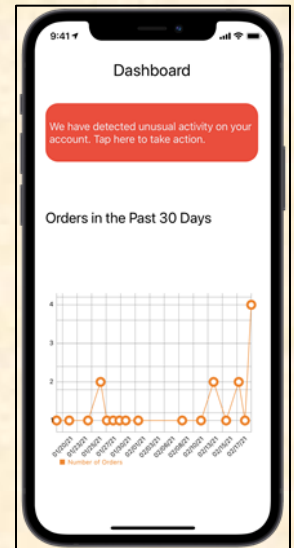
Too Much
Solid White
Whitespace

What's wrong
with solid white
whitespace?
Two Things...



Too Much
Transparent
Whitespace

What's wrong
with transparent
whitespace?

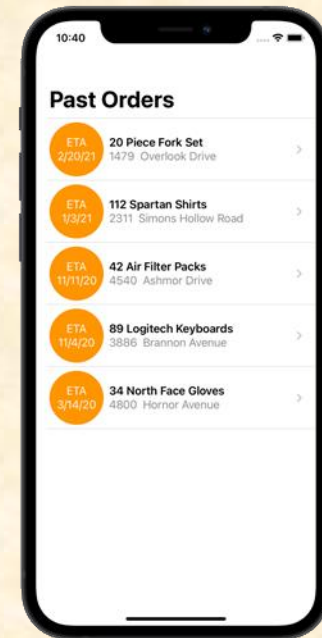
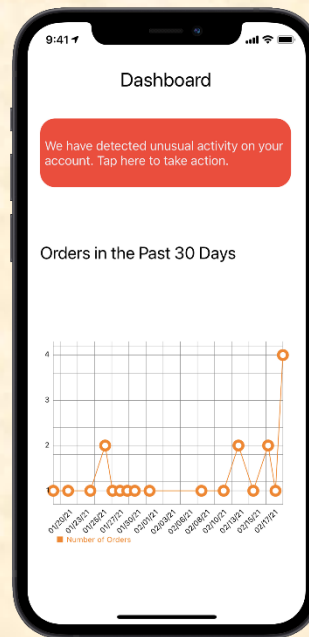
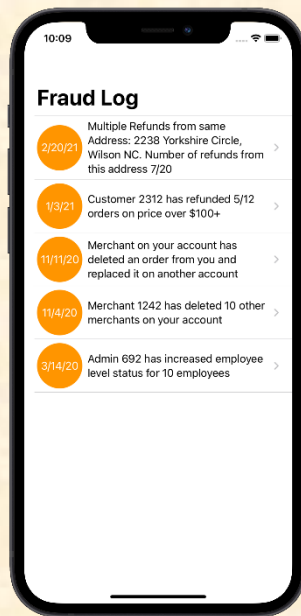


Nicely
Cropped
Transparent
Whitespace



Artwork Whitespace Issues

[1 of 3]



Look Identical

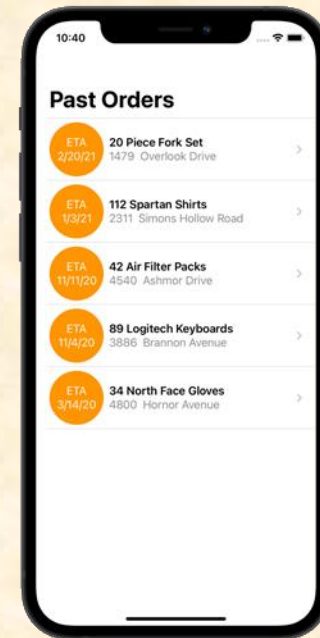
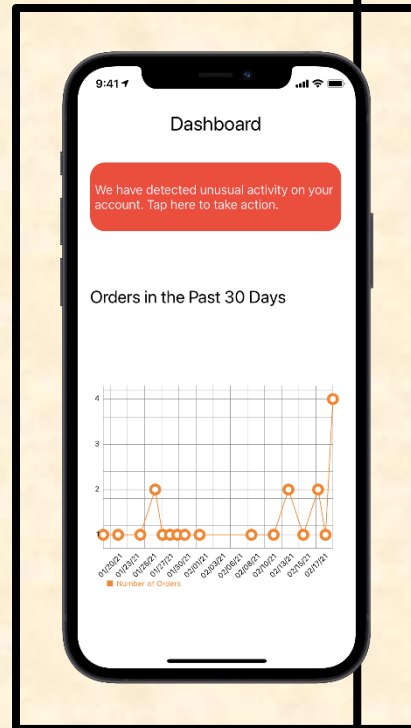
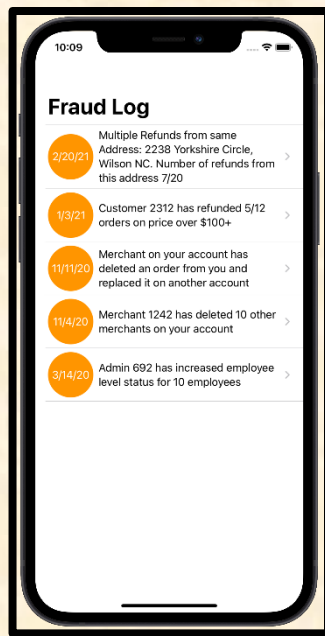
What's the problem?

Key: Think about our graphical designer copying your artwork (png files) into InDesign, selecting all three of them, and then resizing them all to the same height.



Artwork Whitespace Issues

[2 of 3]



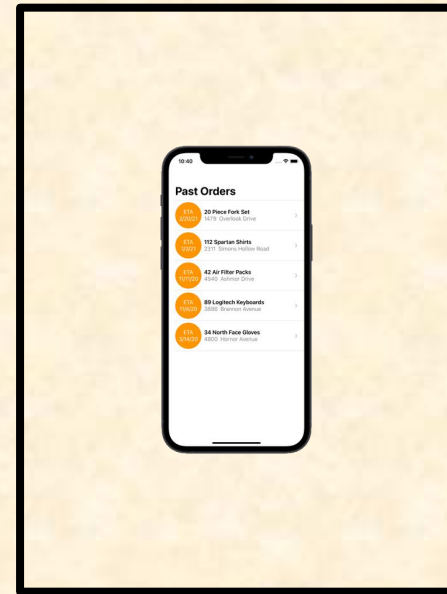
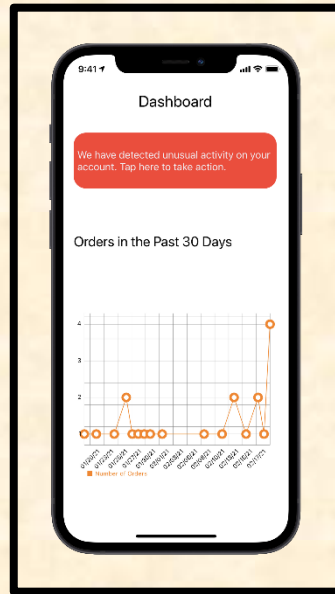
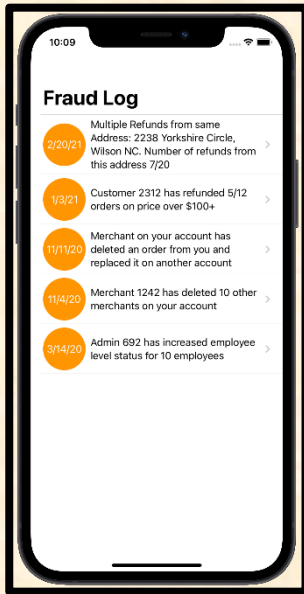
Border shows transparent whitespace.

Transparent whitespace is part of the image.

Designer selects all and makes them all 3" high.

Artwork Whitespace Issues

[3 of 3]

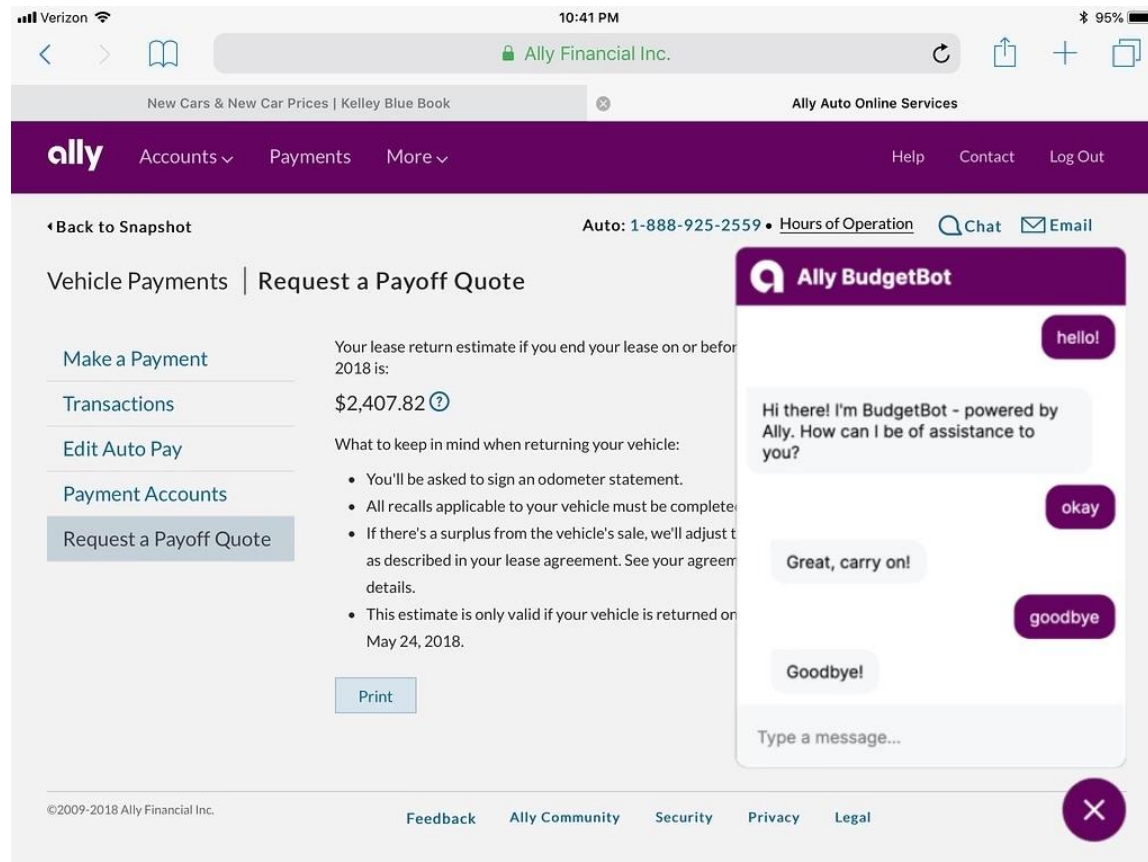


Select All. Rescale to 3" Height. The images (black boxes) are all 3" high.

Download [Design Day Artwork Whitespace Tester](#)

Artwork Border Issues

[1 of 8]



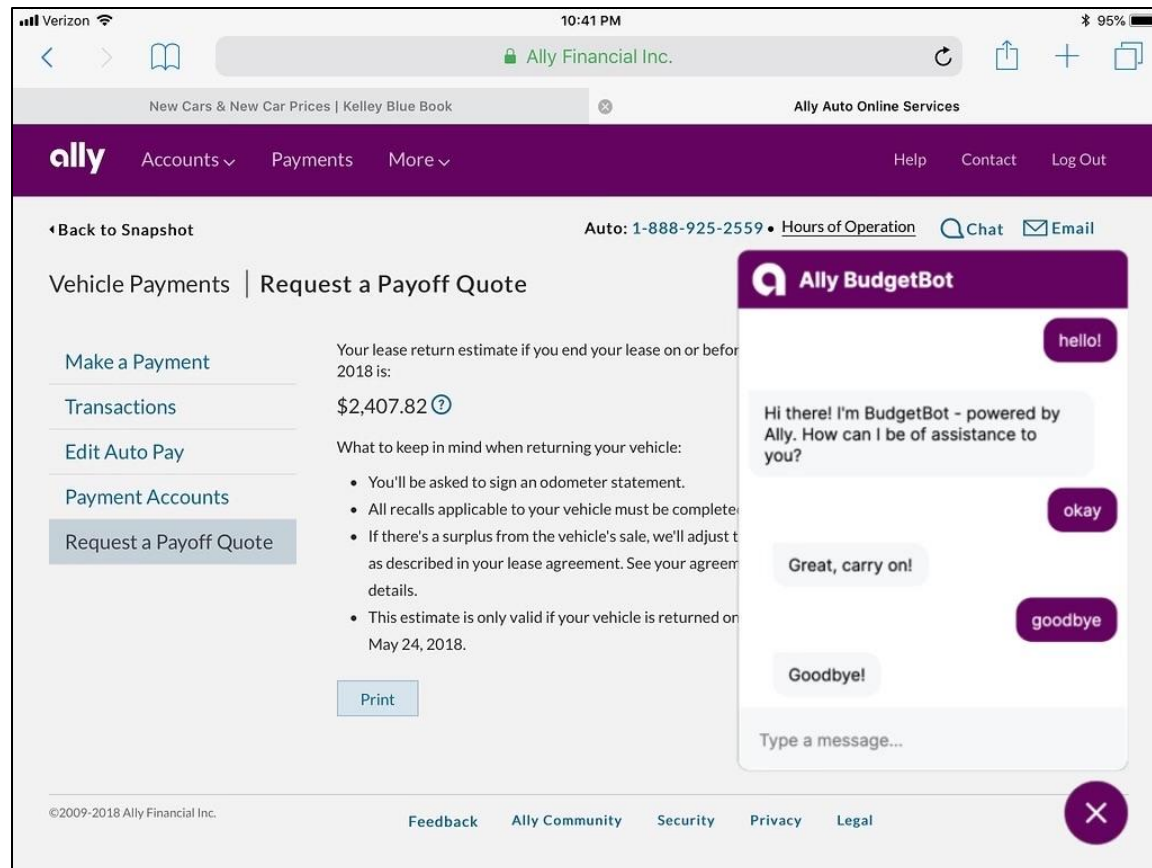
Artwork bleeds
into
background



Artwork Border Issues

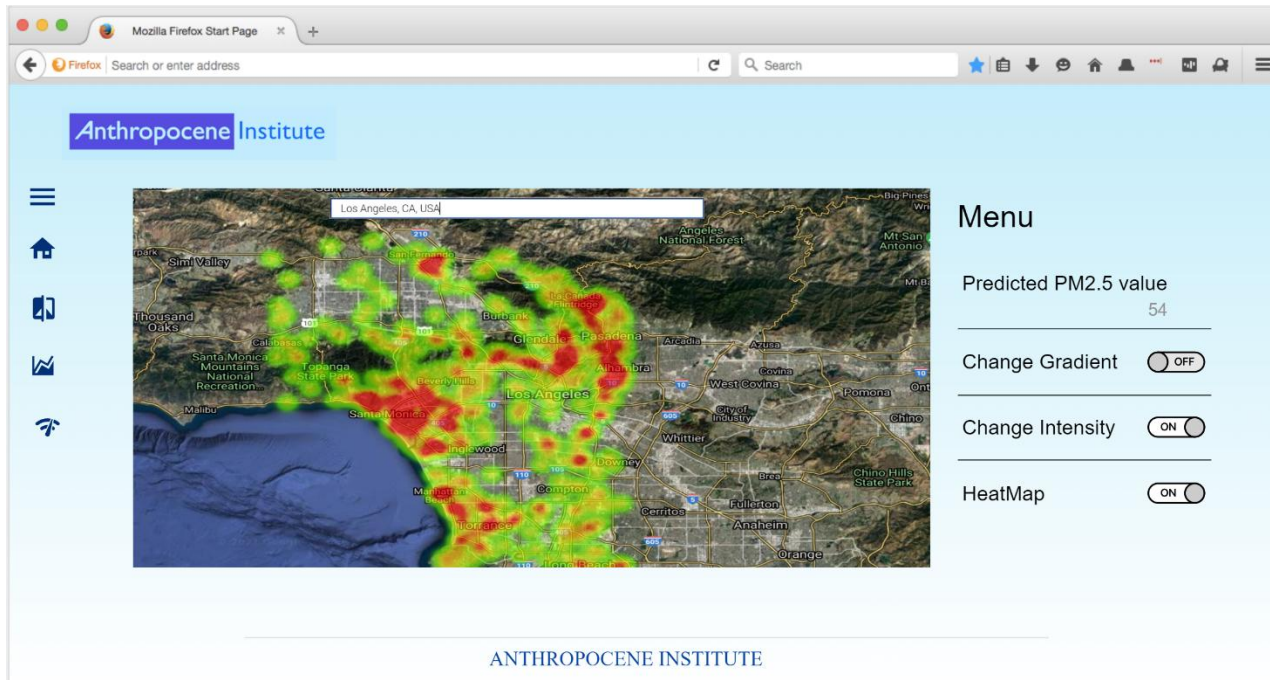
[2 of 8]

Issue Fixed
Border Added



Artwork Border Issues

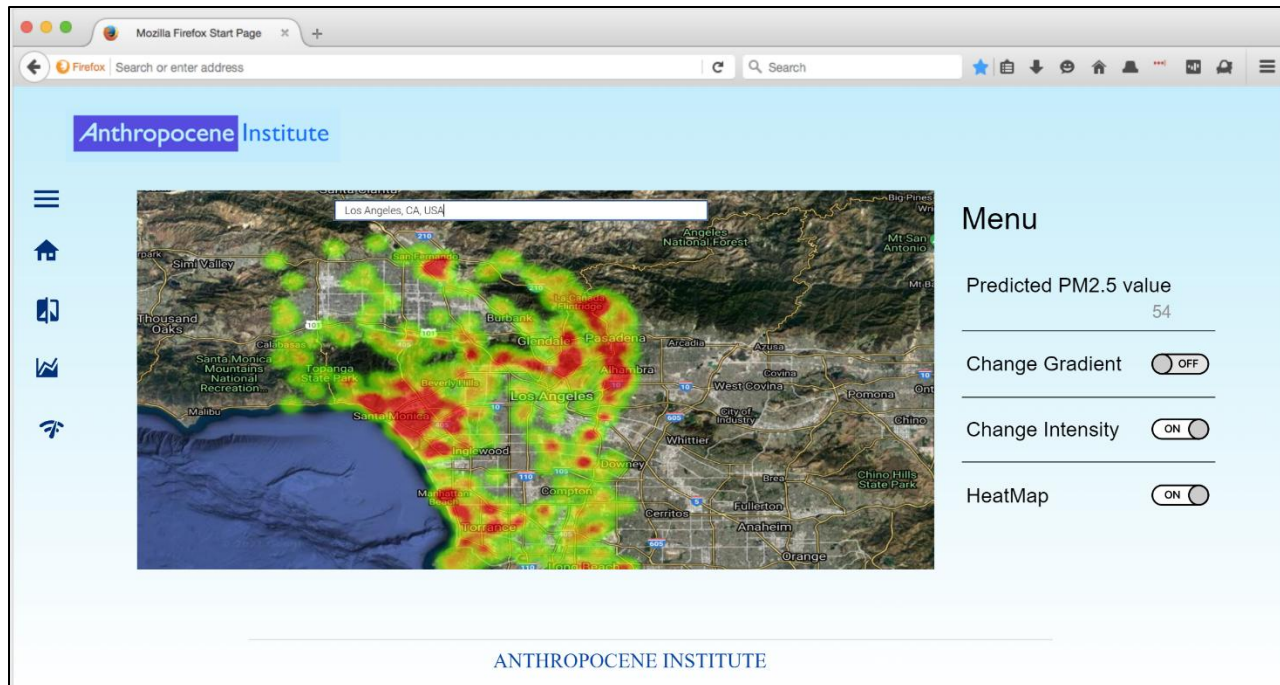
[3 of 8]



Artwork Border Issues

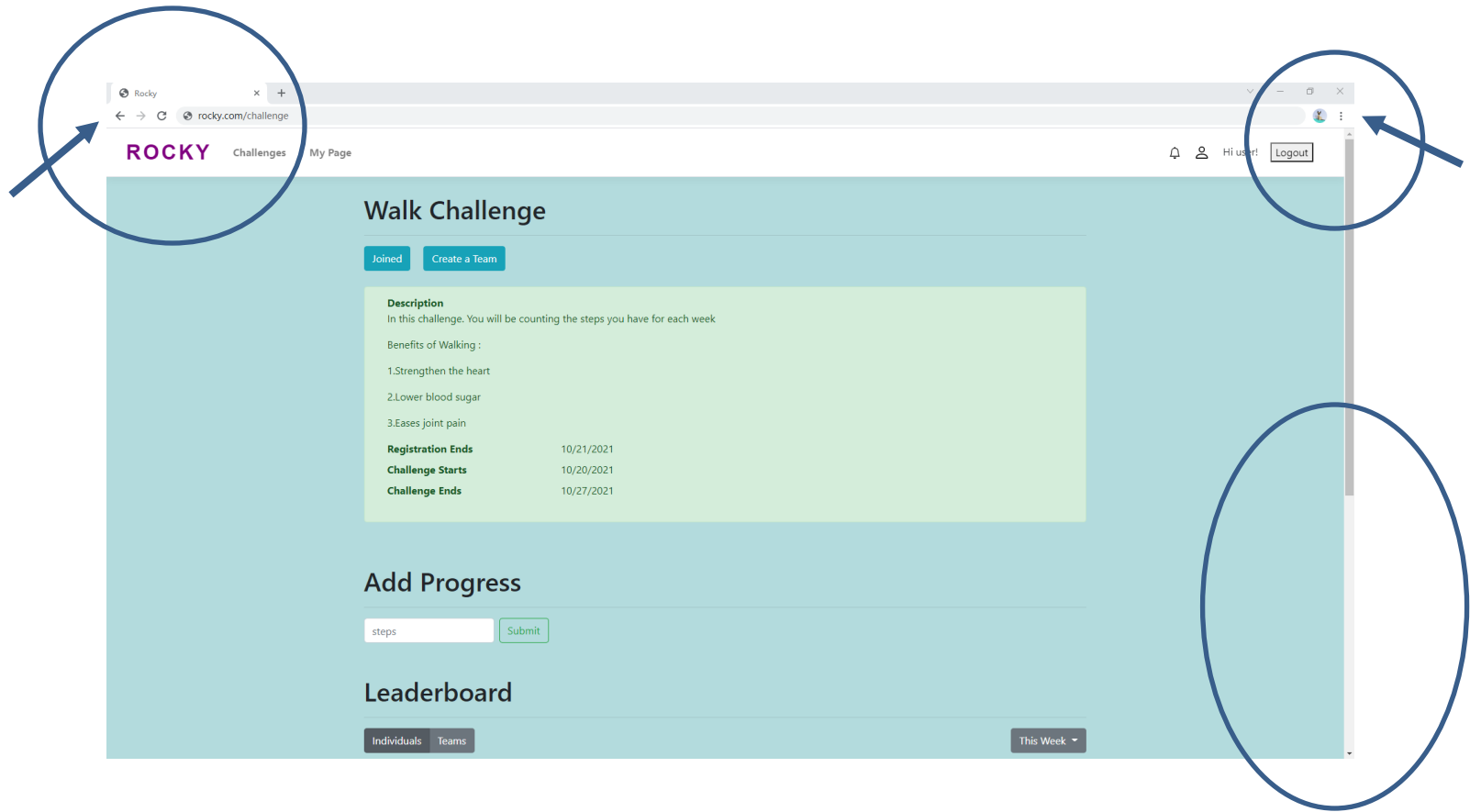
[4 of 8]

Issue Fixed
Border Added



Artwork Border Issues

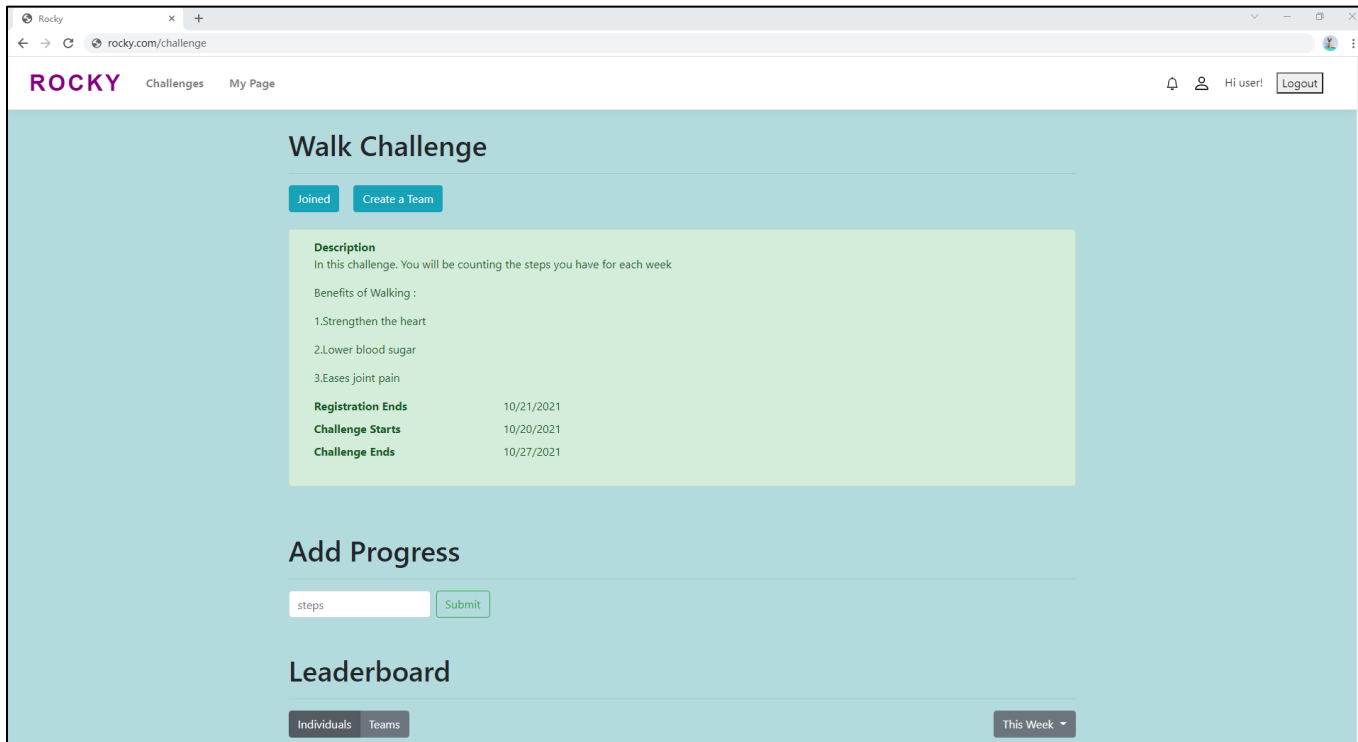
[5 of 8]



Artwork Border Issues

[6 of 8]

Issue Fixed
Border Added



Artwork Border Issues

[7 of 8]

Overlapping Artwork with No Border

The screenshot displays the 'AI CYBERATTACK EARLY WARNING SYSTEM' interface. It features a 'Simulation Timer' set to 00:00:06, a 'Scraper/LLM' section with a table of statistics, and a 'Processed Jobs' table listing detected ransomware articles. The interface is overlaid on a browser window, with another browser window visible behind it, illustrating the 'Overlapping Artwork with No Border' issue.

Simulation Timer
00:00:06
Enter a URL to scrape
Enter URL here
Add to URL Scraping Queue

Select a Category
• Website
• Google
• Twitter

Scraper/LLM			C2 Simulator			Monitored Tools					
Positive	Negative	Total	Positive %	Successes	Failures	Total	Success %	Successes	Failures	Total	Success %
50	10	60	83%	20	10	30	67%	11	1	12	92%

Toggle	URL	Article Name	Category	Properties	C2 Result	Vectra API Result	Time Completed	IP Address
<input type="checkbox"/>	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:00 PM	127.0.0.1

Job #	URL	Article Name	Category	Properties	C2 Result	Vectra API Result	Time Completed	IP Address
Generated Job 1	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:10 PM	127.0.0.2
Generated Job 2	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:20 PM	127.0.0.3
Generated Job 3	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:30 PM	127.0.0.4
Generated Job 4	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:40 PM	127.0.0.5
Generated Job 5	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:50 PM	127.0.0.6



Artwork Border Issues

[8 of 8]

Overlapping Artwork with Grey Borders

The image displays a web application interface for an AI Cyberattack Early Warning System. The main window shows a simulation timer at 00:00:06, a URL input field, and a category selection menu. Below this, there are three summary tables: Scraper/LLM, C2 Simulator, and Monitored Tools. A 'Processed Jobs' table is also visible, listing several jobs with details like URL, article name, category, and completion time. The interface is overlaid on a second, slightly offset browser window, illustrating the 'Overlapping Artwork with Grey Borders' mentioned in the title.

AI CYBERATTACK EARLY WARNING SYSTEM												
Simulation Timer				Scraper/LLM			C2 Simulator			Monitored Tools		
00:00:06	Positive	Negative	Total	Positive %	Successes	Failures	Total	Success %	Successes	Failures	Total	Success %
Enter a URL to scrape	50	10	60	83%	20	10	30	67%	11	1	12	92%

Job #	URL	Article Name	Category	Properties	C2 Result	Vectra API Result	Time Completed	IP Address
Generated Job 1	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:10 PM	127.0.0.2
Generated Job 2	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:20 PM	127.0.0.3
Generated Job 3	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:30 PM	127.0.0.4
Generated Job 4	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:40 PM	127.0.0.5
Generated Job 5	https://thefirreport.com/2024/08/26/blacksuit-ransomware	Black Suit Ransomware	Website	View	Complete	Successfully Detected	6:50 PM	127.0.0.6



Adding Artwork Border Issues

[1 of 5]

Original Screen Capture PNGs

The screenshot shows the 'Time Cube' application interface. At the top, there are controls for 'Start Timing', 'Compact Table', and 'Hide Confirmed'. Below this is a table with columns for 'Project Code', 'Start Time', 'End Time', 'Time(min)', and 'Actions'. The table contains several rows of data, including project codes like '28734-Home-Energy' and '41954-HM-Widget'. A left sidebar contains a list of project categories such as 'Connect Device', 'Time Cube Display', and 'Swap Codes'.

Project Code	Start Time	End Time	Time(min)	Actions
28734-Home-Energy	8:00AM	9:00AM	60	[edit] [delete]
41954-HM-Widget	8:00AM	10:30AM	80	[edit] [delete]
17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[edit] [delete]
87624-HB-Connect	8:00AM	9:00AM	60	[edit] [delete]
41954-HM-Widget	8:00AM	10:20AM	80	[edit] [delete]
32134-HoloLens-2	10:20AM	11:15AM	55	[edit] [delete]
92714-Smart-Home	11:15AM	11:30AM	15	[edit] [delete]

This screenshot is identical to the previous one, but with a modal window overlaid in the center. The modal window has a title '455 minutes have been recorded' and contains a table summarizing the total time for each project.

Project Name	Total (min)
28734-Home-Energy	60
41954-HM-Widget	80
17564-Fleet-Diagnostics	55
87624-HB-Connect	60
41954-HM-Widget	80
32134-HoloLens-2	55
92714-Smart-Home	15

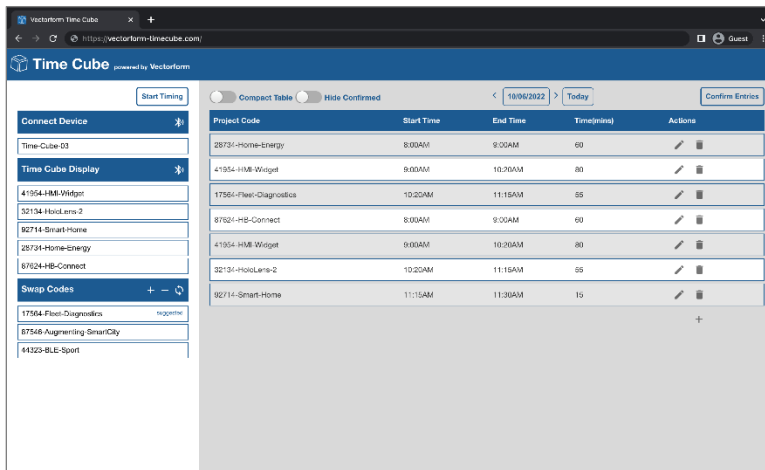
Below the table is a 'Done' button.



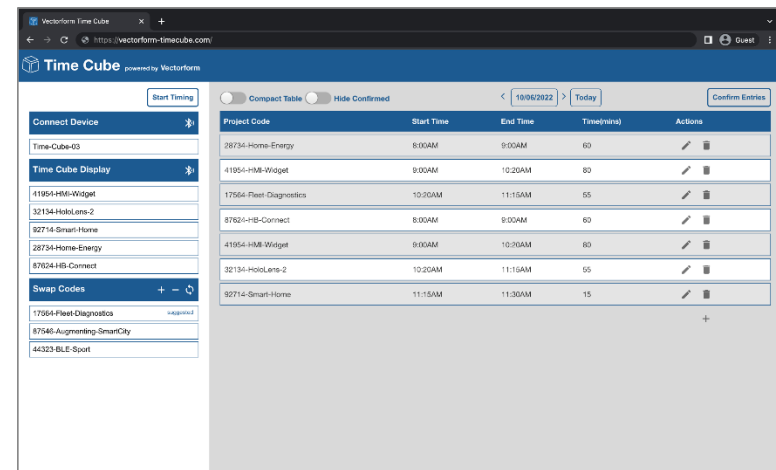
Adding Artwork Border Issues

[2 of 5]

Left: Border Added to Artwork Using Word in Template
Right: Border Added to Artwork PNG using PowerPoint



Connect Device	Project Code	Start Time	End Time	Time(min)	Actions
Time-Cube-03	28734-Home-Energy	8:00AM	9:00AM	60	[edit] [delete]
Time Cube Display	41954-HM-Widget	9:00AM	10:30AM	80	[edit] [delete]
41954-HM-Widget	17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[edit] [delete]
32134-HoolLens-2	87624-HB-Connect	8:00AM	9:00AM	60	[edit] [delete]
92714-SmartHome	41954-HM-Widget	9:00AM	10:30AM	80	[edit] [delete]
28734-Home-Energy	92131-HoolLens-2	10:20AM	11:15AM	55	[edit] [delete]
87624-HB-Connect	92714-SmartHome	11:15AM	11:30AM	15	[edit] [delete]
Swap Codes					
17564-Fleet-Diagnostics					
87548-Augmenting-SmartCity					
44323-BLE-Spot					



Connect Device	Project Code	Start Time	End Time	Time(min)	Actions
Time-Cube-03	28734-Home-Energy	8:00AM	9:00AM	60	[edit] [delete]
Time Cube Display	41954-HM-Widget	9:00AM	10:30AM	80	[edit] [delete]
41954-HM-Widget	17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[edit] [delete]
32134-HoolLens-2	87624-HB-Connect	8:00AM	9:00AM	60	[edit] [delete]
92714-SmartHome	41954-HM-Widget	9:00AM	10:30AM	80	[edit] [delete]
28734-Home-Energy	92131-HoolLens-2	10:20AM	11:15AM	55	[edit] [delete]
87624-HB-Connect	92714-SmartHome	11:15AM	11:30AM	15	[edit] [delete]
Swap Codes					
17564-Fleet-Diagnostics					
87548-Augmenting-SmartCity					
44323-BLE-Spot					

Looks fine, right? What's wrong?

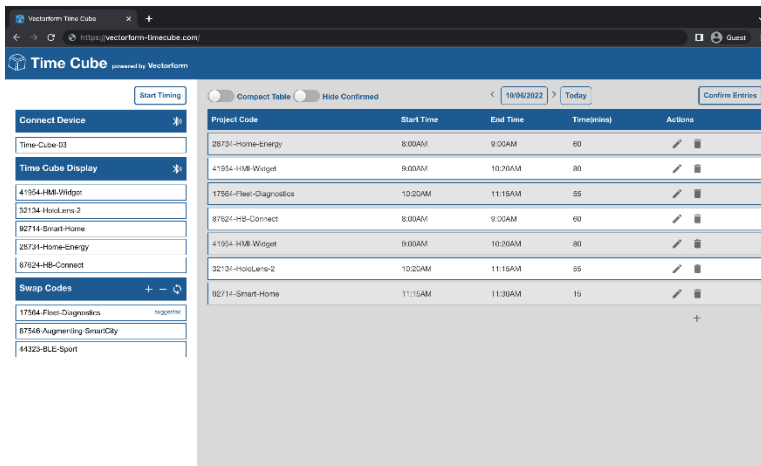
Key: Graphic designer does not copy-and-paste artwork from the Word document.
Graphic designer copies PNG files into Design Day booklet.



Adding Artwork Border Issues

[3 of 5]

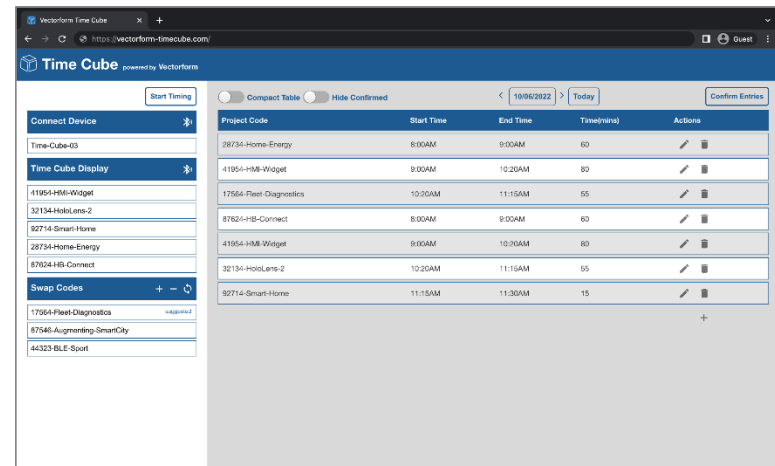
Artwork PNG files inserted to Design Day booklet by graphic designer.



The screenshot shows the Time Cube web application interface. The top navigation bar includes the 'Time Cube' logo, a 'Start Timing' button, and toggle switches for 'Compact Table' and 'Hide Confirmed'. The main content area features a table with the following data:

Project Code	Start Time	End Time	Time(min)	Actions
28734-Home-Energy	8:00AM	9:00AM	60	[Edit] [Delete]
41954-HM-Widget	9:00AM	10:30AM	80	[Edit] [Delete]
17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[Edit] [Delete]
87624-HB-Connect	8:00AM	9:00AM	60	[Edit] [Delete]
41954-HM-Widget	9:00AM	10:30AM	80	[Edit] [Delete]
92134-HocLens-2	10:20AM	11:15AM	55	[Edit] [Delete]
92714-Smart-Home	11:15AM	11:30AM	15	[Edit] [Delete]

On the left side of the interface, there is a sidebar menu with categories: 'Connect Device', 'Time Cube Display', 'Swap Codes', and 'Project Codes'. The 'Project Codes' section is expanded, showing a list of codes: 17564-Fleet-Diagnostics, 87548-Augmenting-SmartCity, and 44323-BLE-Spot.



The screenshot shows the Time Cube web application interface, similar to the previous one, but with artwork borders added to the table rows. The table data is as follows:

Project Code	Start Time	End Time	Time(min)	Actions
28734-Home-Energy	8:00AM	9:00AM	60	[Edit] [Delete]
41954-HM-Widget	9:00AM	10:30AM	80	[Edit] [Delete]
17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[Edit] [Delete]
87624-HB-Connect	8:00AM	9:00AM	60	[Edit] [Delete]
41954-HM-Widget	9:00AM	10:30AM	80	[Edit] [Delete]
92134-HocLens-2	10:20AM	11:15AM	55	[Edit] [Delete]
92714-Smart-Home	11:15AM	11:30AM	15	[Edit] [Delete]

The sidebar menu on the left is identical to the previous screenshot, showing the same categories and project codes.

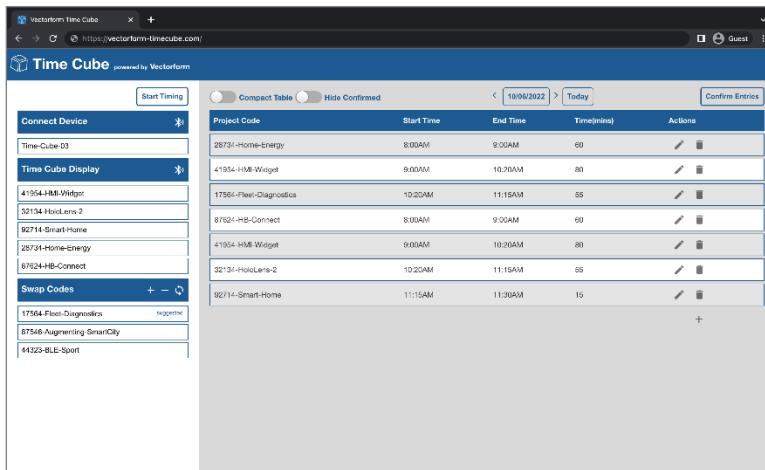
Key: Graphic designer does not copy-and-paste artwork from the Word document. Graphic designer inserts PNG files into Design Day booklet.



Adding Artwork Border Issues

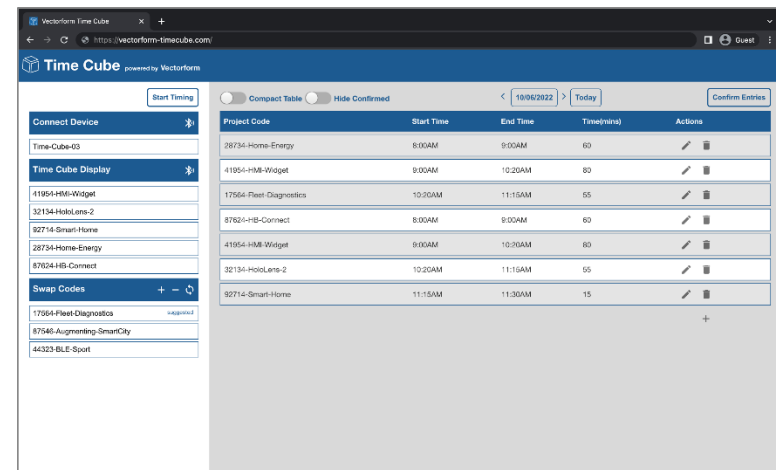
[4 of 5]

Border Added to Both Artwork PNGs using PowerPoint



The screenshot shows the 'Time Cube' application interface. On the left, there is a sidebar with a 'Connect Device' section containing a list of devices: Time-Cube-03, Time Cube Display, 41954-HM-Widget, 32134-HubLens-2, 92714-SmartHome, 38734-Home-Energy, and 87624-HB-Connect. Below this is a 'Swap Codes' section with a plus and minus icon, and a list of codes: 17564-Fleet-Diagnostics, 87548-Augmenting-SmartCity, and 44323-BLE-Spot. The main area displays a table with the following data:

Project Code	Start Time	End Time	Time(min)	Actions
28734-Home-Energy	8:00AM	9:00AM	60	[edit] [trash]
41954-HM-Widget	9:00AM	10:30AM	80	[edit] [trash]
17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[edit] [trash]
87624-HB-Connect	8:00AM	9:00AM	60	[edit] [trash]
41954-HM-Widget	9:00AM	10:30AM	80	[edit] [trash]
32134-HubLens-2	10:20AM	11:15AM	55	[edit] [trash]
92714-SmartHome	11:15AM	11:30AM	15	[edit] [trash]



The screenshot shows the 'Time Cube' application interface with a different order of entries in the table. The sidebar and 'Swap Codes' section are identical to the previous screenshot. The main table data is as follows:

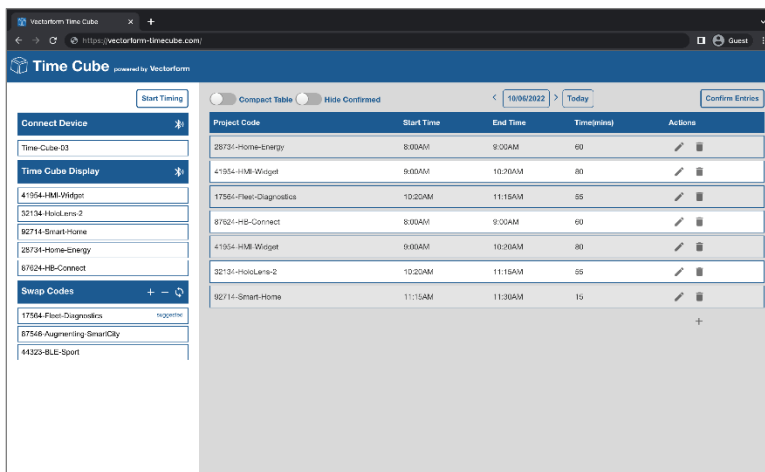
Project Code	Start Time	End Time	Time(min)	Actions
28734-Home-Energy	8:00AM	9:00AM	60	[edit] [trash]
41954-HM-Widget	9:00AM	10:20AM	80	[edit] [trash]
17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[edit] [trash]
87624-HB-Connect	8:00AM	9:00AM	60	[edit] [trash]
28734-Home-Energy	9:00AM	10:30AM	80	[edit] [trash]
87624-HB-Connect	10:20AM	11:15AM	55	[edit] [trash]
32134-HubLens-2	11:15AM	11:30AM	15	[edit] [trash]



Adding Artwork Border Issues

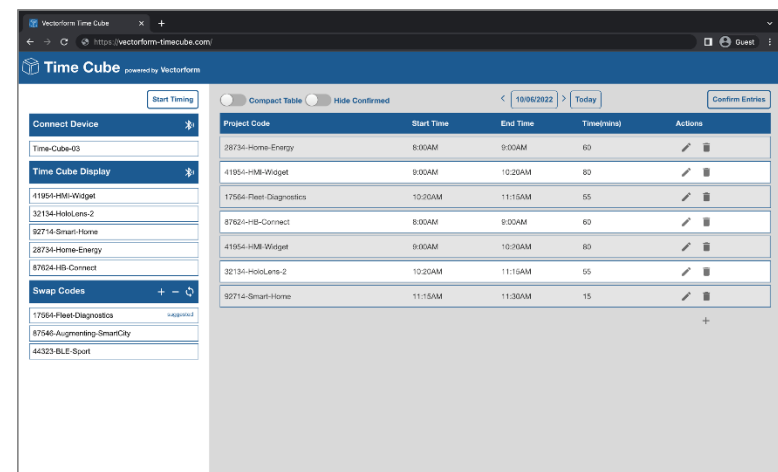
[5 of 5]

Graphic Designer Imports Artwork PNGs into InDesign



The screenshot shows the 'Time Cube' web application interface. The main content area displays a table with the following data:

Project Code	Start Time	End Time	Time (mins)	Actions
28734-Home-Energy	8:00AM	9:00AM	60	[Edit] [Delete]
41954-HM-Widget	9:00AM	10:30AM	80	[Edit] [Delete]
17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[Edit] [Delete]
87624-HB-Connect	8:00AM	9:00AM	60	[Edit] [Delete]
41954-HM-Widget	9:00AM	10:30AM	80	[Edit] [Delete]
32134-HabLens-2	10:20AM	11:15AM	55	[Edit] [Delete]
92714-Smart-Home	11:15AM	11:30AM	15	[Edit] [Delete]



The screenshot shows the 'Time Cube' web application interface with a different arrangement of project entries in the table:

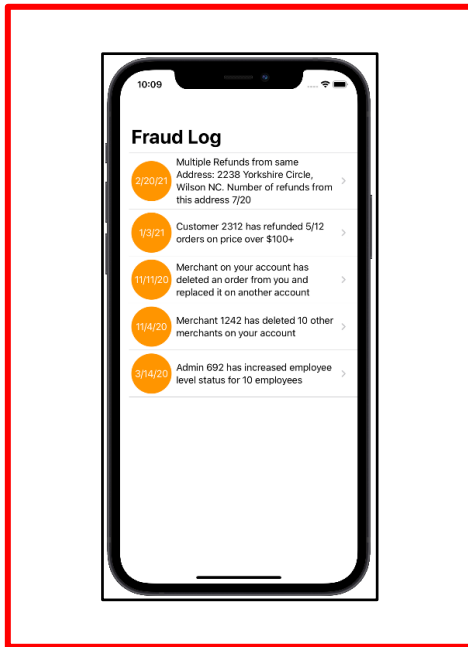
Project Code	Start Time	End Time	Time (mins)	Actions
28734-Home-Energy	8:00AM	9:00AM	60	[Edit] [Delete]
41954-HM-Widget	9:00AM	10:30AM	80	[Edit] [Delete]
17564-Fleet-Diagnostics	10:20AM	11:15AM	55	[Edit] [Delete]
87624-HB-Connect	8:00AM	9:00AM	60	[Edit] [Delete]
41954-HM-Widget	9:00AM	10:30AM	80	[Edit] [Delete]
32134-HabLens-2	10:20AM	11:15AM	55	[Edit] [Delete]
92714-Smart-Home	11:15AM	11:30AM	15	[Edit] [Delete]



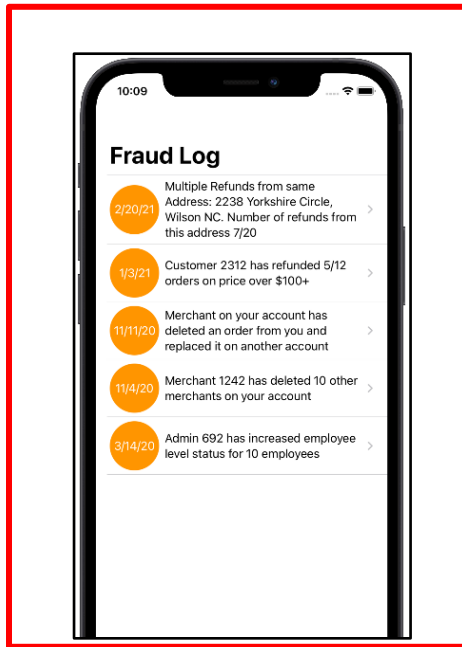
Textbox Clipping Artwork

[1 of 1]

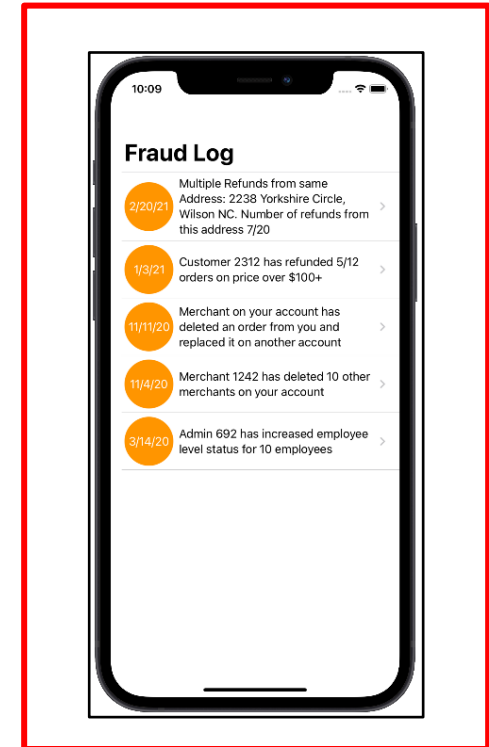
Original



Resized Artwork
Clipped by Textbox

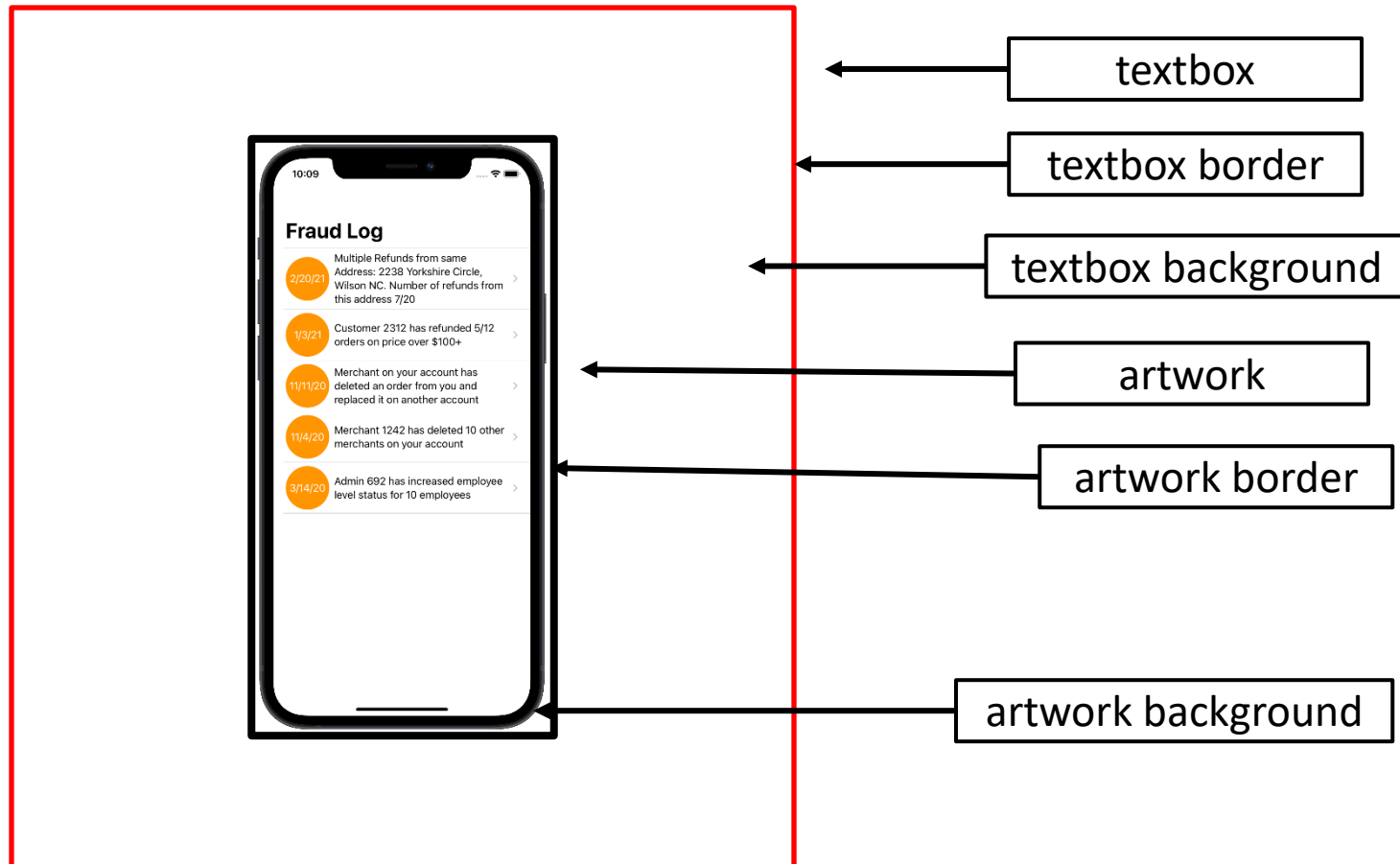


Resized Textbox



Artwork Who's on first?

[1 of 3]

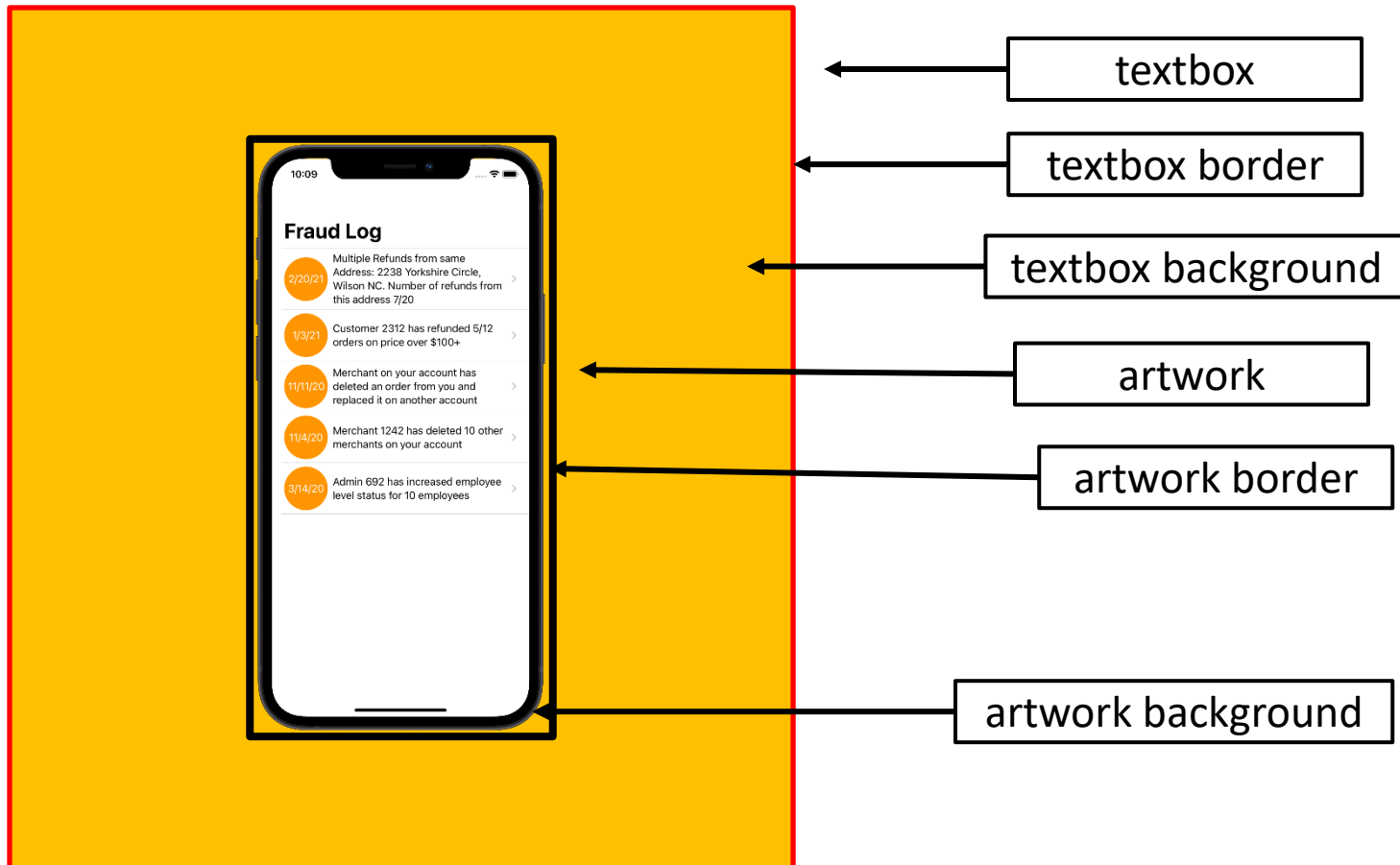


Artwork Who's on first?

[2 of 3]

Changed color of textbox background.

Artwork has transparent background.

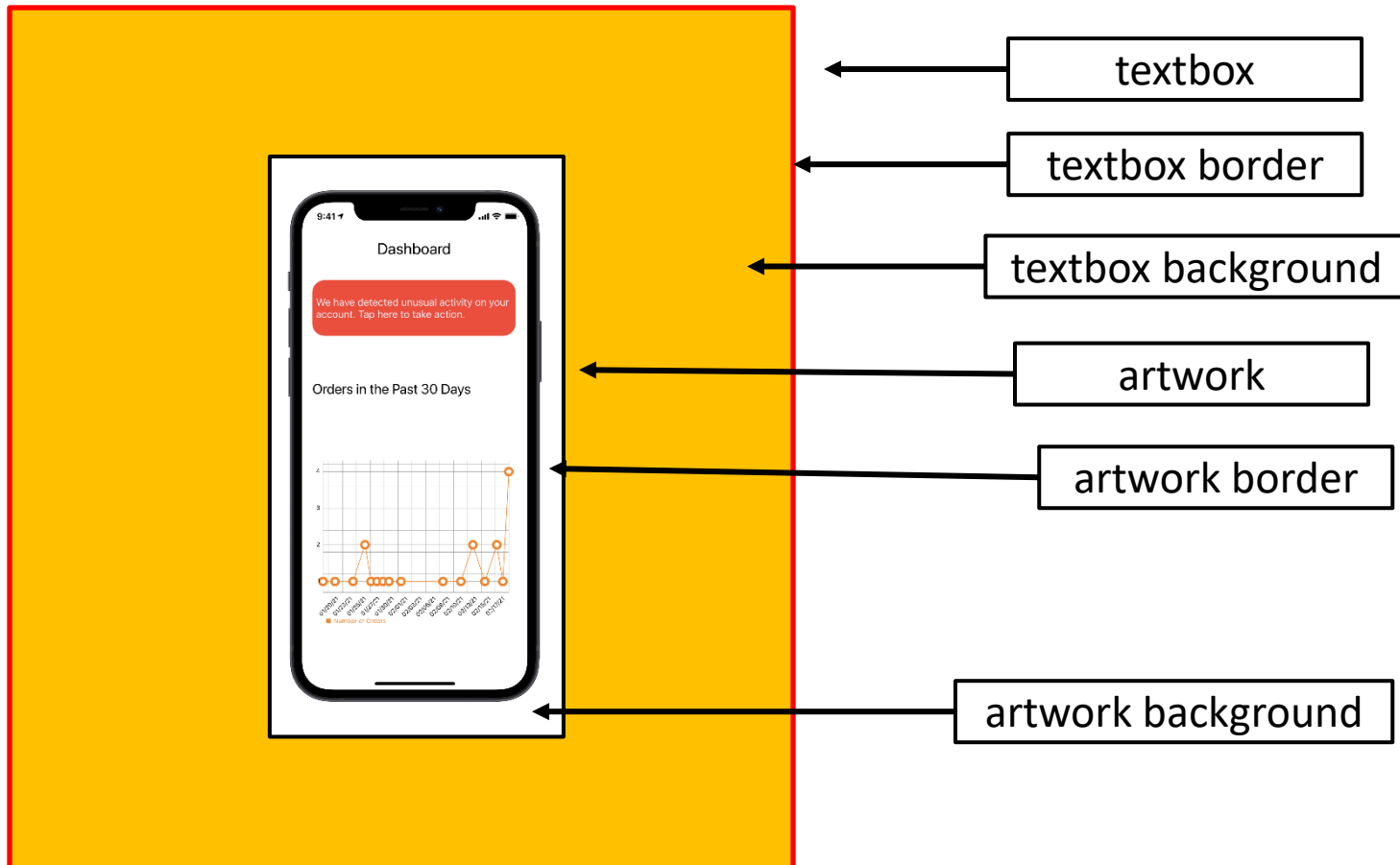


Artwork Who's on first?

[3 of 3]

Changed color of textbox background.

Artwork has white background, which is wrong. Why does this matter?



Artwork Examples

[1 of 5]

CSE 498 / 7:30 a.m. Engineering Building, Room 3405 | Third Floor

Amazon AVAST: Amazon Video And Shopping Technology

Founded in 1994 as an online bookstore, Amazon is the largest online retailer in the world. In addition to retail, Amazon offers services in cloud infrastructure through Amazon Web Services, and audio and video streaming through Amazon Music and Prime Video.

According to a recent study, 80% of internet usage will be people watching online videos by the year 2020. This presents a significant opportunity for all online retailers.

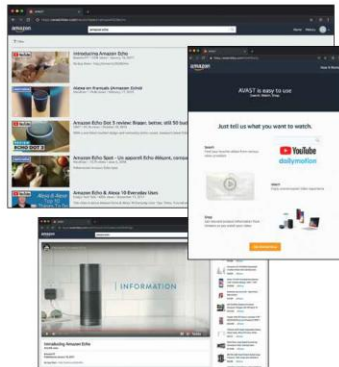
Our AVAST (Amazon Video And Shopping Technology) platform leverages the growth in online video streaming by providing users with an easy way to purchase products of interest that they see in the videos they are watching.

Using AVAST, an Amazon customer can stream videos from content providers such as YouTube and their favorite TV networks.

While a user is watching a video, AVAST analyzes it to find items of potential interest to the viewer. As the video plays, related Amazon products are displayed alongside the video as illustrated in the examples at the right.

For each item, AVAST displays a product description, pictures and ratings. A viewer can easily purchase any product simply by clicking on the conveniently provided link to Amazon.

The frontend of AVAST (Amazon Video And Shopping Technology) is built using Angular 6, while the backend is implemented using PHP Laravel. In addition, several Amazon Web Services are used including Rekognition to analyze videos, and EC2 to host the AVAST website.



**Michigan State University
Team Members** (left to right)

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Oak Park, Michigan

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Clarkston, Michigan

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Novi, Michigan

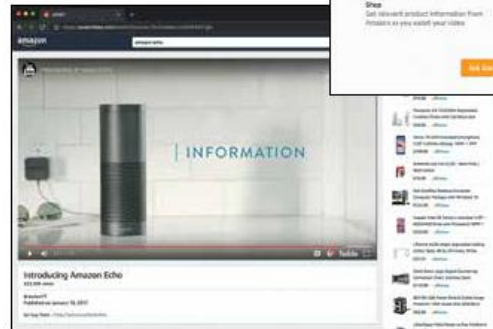
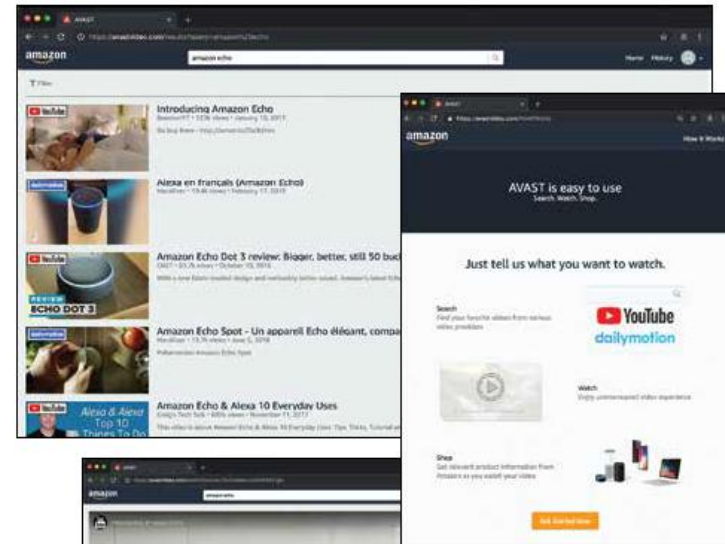
**Amazon
Project sponsors**

Garret Gaw
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Derek Gebhard
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Kyle Koss
Detroit, Michigan

Pete Pfaffler
Detroit, Michigan



Artwork Examples

[1 of 4]

Engineering Building, Room 3405 | Third Floor 7:43 a.m. / CSE 498

Aptiv Autonomous Vehicle Fleet Connectivity App

Aptiv is a global technology company that is transforming mobility with its portfolio of safe, green, and connected solutions for its customers.

As a leader in autonomous vehicle development, Aptiv maintains an extensive test fleet of autonomous vehicles, which must be managed and monitored.

Our Autonomous Vehicle Fleet Connectivity App provides connectivity to Aptiv's autonomous test fleet, which operates across the US, Europe and Asia, and includes various vehicles with software for every level of autonomy.

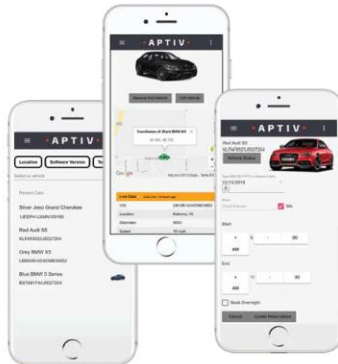
Among other features, our system provides scheduling of test vehicles. After logging in, Aptiv engineers see a calendar view of the entire fleet from which they can select a particular day to obtain a list of available vehicles.

Once a vehicle is selected, our app displays a complete set of information about it including its past usage, reservations and diagnostic information.

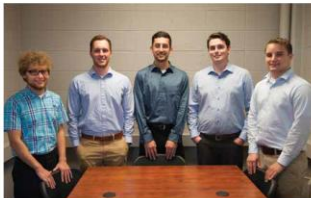
In addition to checking availability of vehicles based on dates, our app provides for advanced search to narrow the scope based on things like type of vehicle, location of vehicle and level of autonomy.

The "My Reservations" tab shows a user's upcoming vehicle reservations as well as enabling them to make and cancel reservations.

Our Autonomous Vehicle Fleet Connectivity App is written using the Angular web framework, obtaining information from Aptiv's native servers. Communications are implemented using Microsoft Azure Services.



• APTIV •



Michigan State University Team Members (left to right)

Alex Patton
Howell, Michigan

Drew Glapa
Dexter, Michigan

Emilio Castillo
Lansing, Michigan

Klint Kaercher
Lansing, Michigan

Chad Krause
Novi, Michigan

Aptiv Project Sponsors

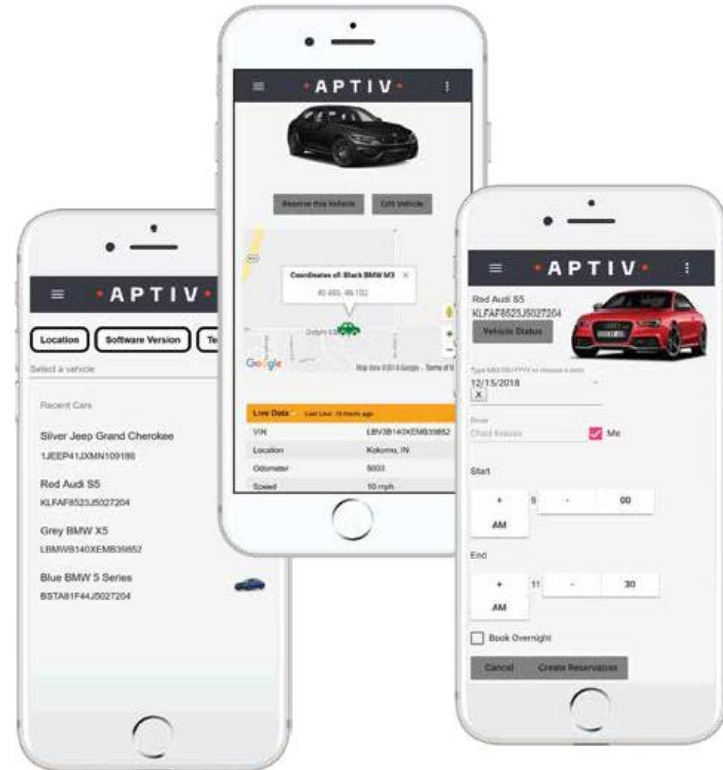
Chris Lussenhop
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Jim Quisenberry
Troy, Michigan

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• APTIV •



Artwork Examples

[2 of 4]

CSE 498 / 7:56 a.m. Engineering Building, Room 3405 | Third Floor

Auto-Owners Insurance Jeffrey: Virtual Insurance Claim Advisor

Auto-Owners Insurance is a Fortune 500 company that provides automotive, home, life and commercial insurance. Headquartered in Lansing, Michigan, Auto-Owners is represented by over 44,000 licensed insurance agents across 26 states, and provides insurance to nearly 3 million policyholders.

Every day, hundreds of insurance claims are filed with Auto-Owners through its independent agents. This process can be tedious for both policyholders and agents.

Our Jeffrey Virtual Insurance Claim Advisor system is a virtual claim assistant that automates the entire claim reporting process. Our mobile app, shown at the right, enables both agents and policyholders to file a claim easily and efficiently.

Jeffrey engages in a dialogue with policyholders and agents to gather information required to file their claim through natural conversation. If necessary, Jeffrey prompts users to take photos, record videos or attach documents relevant to a claim.

After completing a dialogue with a user, Jeffrey automatically gathers the appropriate claim information and submits it to Auto-Owners.

Our companion web app enables agents and Auto-Owners associates to find and review claim information that is submitted through the mobile application.

Our Jeffrey Virtual Insurance Claim Advisor system features natural language processing, which is implemented using Google's Dialogflow. A custom REST API, written in Kotlin, handles interactions between the applications and our MySQL database. Our web application is built using the React JavaScript framework.



Auto-Owners
INSURANCE
LIFE • HOME • CAR • BUSINESS



**Michigan State University
Team Members** (left to right)

Alex Klingel
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Conner Stabnick
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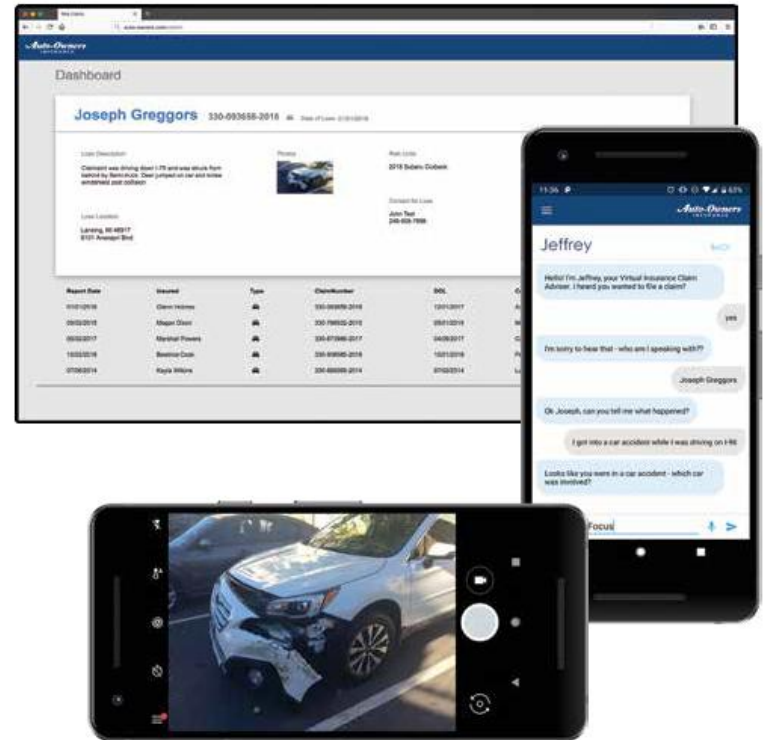
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Auto-Owners
INSURANCE
LIFE • HOME • CAR • BUSINESS

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Artwork Examples

[3 of 4]

Engineering Building, Room 3405 | Third Floor 9:53 a.m. / CSE 498

Proofpoint Improved Detonation of Evasive Malware

Headquartered in Sunnyvale, California, Proofpoint provides cybersecurity to many organizations, including Fortune 100 companies and educational institutions such as Michigan State University.

Analyzing malware is challenging. Viruses, spyware, ransomware and other malicious programs come in many complex forms. To protect its customers, Proofpoint uses tools called sandboxes, which are restricted computing environments where potentially harmful malware can be tested and analyzed safely.

Unfortunately, a new class of malware called "evasive malware" is rapidly emerging, thereby presenting a new, more dangerous class of cybersecurity threats.

Evasive malware has the ability to detect the presence of the sandbox environment. After doing so, it changes what it does, thereby evading analysis.

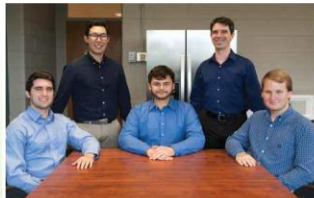
Our Improved Detonation of Evasive Malware system modifies evasive malware to block its ability to detect the sandbox environment, which causes it to execute. When the evasive malware does execute, its behavior is analyzed to determine precisely what it does so that Proofpoint can design countermeasures to protect against it.

Our web app, shown at the right, displays the results of processed malware. Users can check the status of the malware samples being tested as well as see the top evasive techniques being used. Both harmless and harmful evasive results are presented.

Our Improved Detonation of Evasive Malware system is implemented in Python, using the Cuckoo sandboxing framework and Sunicata network monitor. Our web app is implemented using Python and Flask with the interface framed in Bootstrap and jQuery.



proofpoint™



**Michigan State University
Team Members** (left to right)

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PAGE 37



proofpoint™



Artwork Examples

[4 of 4]

9:45 a.m. Engineering Building, Room 3405 | Third Floor CSE 498

MSU Federal Credit Union Banking with Amazon's Alexa and Apple's Siri

Founded in 1937, Michigan State University Federal Credit Union offers financial services to Michigan State University and Oakland University faculty, staff, students, alumni association members and their families. With 230,000 members and over \$3.3 billion in assets, MSUFCU is the largest university-based credit union in the world.

MSUFCU currently offers mobile banking apps on both Apple (iOS) and Google Android devices for members to access their funds and perform banking transactions at any time.

Our Banking with Amazon's Alexa and Apple's Siri systems maintain MSUFCU's technological edge by expanding their banking offerings to voice-controlled smart devices such as Amazon Alexa-enabled devices, Apple Watch and Android Wear.

Voice-controlled technologies give MSUFCU members new ways to interact with their accounts, including accessing their account balance, transferring money and obtaining information about recent transactions. Members can request other information about MSUFCU such as branch hours, current loan rates and the location of the nearest ATM or Branch.

Our companion administrative web portal enables MSUFCU staff to manage the available information and services offered by these voice technologies. Frequently asked questions can be added to the apps in minutes to improve the user experience.

The Alexa skill is written in Python, Apple Watch in Swift and Android Wear in Java. All three contact a MySQL database through JSON. The administrative web portal is written in PHP.



Michigan State University Team Members (left to right)

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Previous Artwork Feedback

- Study Carefully to Learn
 - What to Do
 - What NOT to Do
- Posted on Downloads Page
 - [Design Day Booklet Feedback, Fall 2022](#)
 - [Design Day Booklet Feedback, Spring 2023](#)
 - [Design Day Booklet Feedback, Fall 2023](#)
 - [Design Day Booklet Feedback, Spring 2024](#)



Example Spartan Basketball Player Timer

Michigan State University Men's Basketball Spartan Basketball Player Timer

NCAA Division I basketball is very competitive. Although it may not be apparent to the casual observer, every detail of each game is carefully planned and scripted.

One aspect of a game plan is that of playing times. For each player, the coaches determine target times for how long he can play at a stretch, how long he needs to rest before playing again, and the total amount of time he should play in a game.

Developed with Coach Tom Izzo, our Spartan Basketball Player Timer is used by the basketball staff on the bench during the game.

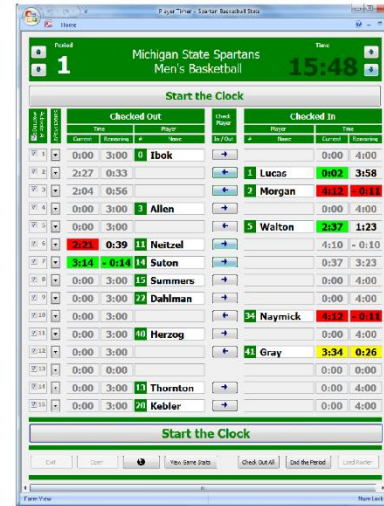
When a player enters the game, his playing time is displayed with a solid green background. When his target playing time goes under two minutes, it is displayed in yellow. When the time goes below zero, it is displayed in red.

The color coding provides visual cues that can be seen by coaches at a distance. If there are many yellow or red boxes, coaches begin to plan substitutions.

A game summary for all the players can be displayed at any time whether the game clock is running or stopped.

Our software runs on a Microsoft Windows Tablet PC about the size of a traditional clipboard only slightly thicker. With no mouse or keyboard, all input is done with a pen.

Spartan Basketball Player Timer is written in Visual Basic. The underlying database is Microsoft Access.



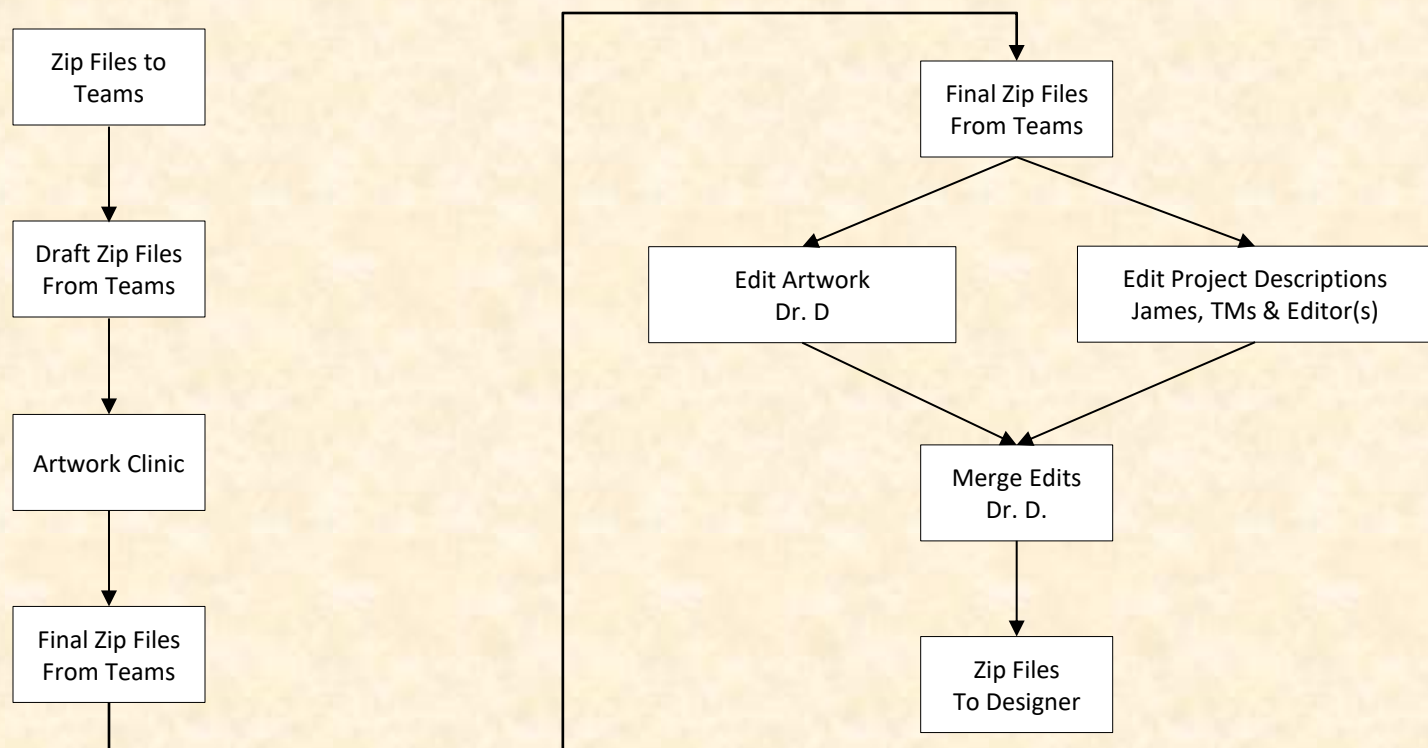
Michigan State University Team Members

- Wayne Dyksen**
North Haledon, New Jersey
- Wayne Dyksen**
Grand Rapids, Michigan
- Wayne Dyksen**
West Lafayette, Indiana
- Wayne Dyksen**
East Lansing, Michigan

Team Michigan State University Project Sponsors

- Richard Bader**
East Lansing, Michigan
- Jim Boylen**
East Lansing, Michigan
- Tom Izzo**
East Lansing, Michigan
- Mark Montgomery**
East Lansing, Michigan
- Dwayne Stephens**
East Lansing, Michigan

The DD Booklet Production Process



1 Template From Dr. D. To Team

All of the textboxes are named for processing

Do NOT create your own textboxes.

If necessary, start over from the original downloaded template.

United Airlines Training Scheduling and Optimization System II

Insert your project description here. Read the [Design Day Booklet Page Instructions](#) thoroughly, over and over and over and over and over.

For examples, see previous Design Day booklets, which you can find [here](#).

You must use the Microsoft Windows version of Word. Do NOT even think about using anything else.

The first two or three lines must be about your client. The following is an example.

Auto-Owners Insurance is a Fortune 500 company that provides automotive, home, life and commercial insurance to nearly 3 million policyholders in 26 states.

Do NOT use phrases like "Our clients asked us to..." or "Our project is..."

Do NOT use phrases like "Our software aims to..." or "Our software is designed to..."

Write everything in the present tense.

Do NOT write anything negative about your client like "Our client's current software is horrible; ours is better."

Read the [Design Day Booklet Page Instructions](#) thoroughly, over and over and over and over and over.

It's okay for a paragraph to have only one sentence as long as the sentence is long enough to take up at least 15 lines.

The last few lines (and only the last few lines) must contain technical details about your project. The following is an example.

Read the [Design Day Booklet Page Instructions](#) thoroughly, over and over and over and over and over.

The frontend of AVAST (Amazon Video And Shopping Technology) is built using Angular 6, while the backend is implemented using PHP Laravel. In addition, several Amazon Web Services are used including Rekognition to analyze videos.

- To insert your artwork, right-click on this artwork (grey rectangle with text within the textbox) and select "Change Picture..."
 - Put each piece of artwork in a **separate** artwork textbox.
 - Do not change the textbox's red external borders. Use them as handles to move and resize the textbox. The red borders will be made invisible later.
 - Delete the artwork textboxes that you do not need.
 - If you need more textboxes, you **must** copy-and-paste one of these existing artwork textboxes. Right-click on the outside red external border, select copy, and then paste.
 - To layer overlapping textboxes, right-click on a textbox red border, and select "Bring to Front" or "Send to Back."
- existing artwork textboxes. Right-click on the outside red external border, select copy, and then paste.
- To layer overlapping textboxes, right-click on a textbox red border, and select "Bring to Front" or "Send to Back."
- existing artwork textboxes. Right-click on the outside red external border, select copy, and then paste.
- To layer overlapping textboxes, right-click on a textbox red border, and select "Bring to Front" or "Send to Back."
- existing artwork textboxes. Right-click on the outside red external border, select copy, and then paste.
- To layer overlapping textboxes, right-click on a textbox red border, and select "Bring to Front" or "Send to Back."



<p>Michigan State University Team Members (left to right)</p> <p>Josh Pezeshki Franklin, Michigan</p> <p>Jack Soenke Naperville, Illinois</p> <p>Laura Danila Livonia, Michigan</p> <p>Andrew Ferguson Livonia, Michigan</p>	<p>United Airlines Training Project Sponsors</p> <p>Amadou Anne Chicago, Illinois</p> <p>Craig Bennett Chicago, Illinois</p> <p>Rick Brown Chicago, Illinois</p> <p>Lynda McDaniel Houston, Texas</p> <p>Tom Wilson Chicago, Illinois</p>
---	---



There are four placeholders for artwork.

The text boxes have red outlines for handles.

Each textbox includes one embedded placeholder artwork, a grey png image.

To add your artwork, right click on grey image and select Change Picture.

Resize the artwork. Resize and position the Textboxes.

Delete the textboxes placeholders you don't need.

Do NOT create your own textboxes for artwork.

2 Project Description Draft From Team To Dr. D.

Computer Science CSE498 / 8:00 a.m. - Noon Engineering Building, 1300 Hallway | First Floor

United Airlines Training Scheduling and Optimization System II

United Airlines is the world's second largest airline company, operating 4,600 flights a day to 357 destinations. To maintain its fleet of 1,300 aircraft and ensure successful flights, it is crucial to have properly trained personnel. United's Technical Operations division has 60 instructors, who teach around 700 classes yearly to over 7,000 employees.

Our Training Scheduling and Optimization System II provides a web app to facilitate United's maintenance training schedulers to schedule instructors and students for courses across the country.

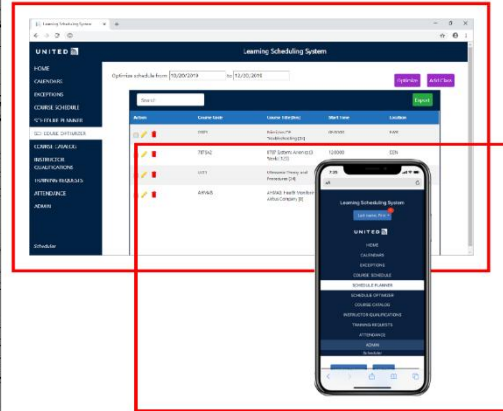
When the scheduler goes to schedule a course, the system displays available locations and instructors. The scheduler can also schedule a course from a training request inputted by instructors or supervisors.

Our system contains a schedule optimization system. Within a given time frame, a scheduler inputs a set of classes and locations. The optimizer recommends an optimal schedule, including instructor and classroom. This reduces the amount of time the scheduler needs to plan courses.

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Michigan State University Team Members (left to right)

- Josh Pezeshki**
Franklin, Michigan
- Jack Soenke**
Naperville, Illinois
- Laura Danila**
Livonia, Michigan
- Andrew Ferguson**
Livonia, Michigan

United Airlines Project Sponsors

- Amadou Anne**
Chicago, Illinois
- Craig Bennett**
Chicago, Illinois
- Rick Brown**
Chicago, Illinois
- Lynda McDaniel**
Houston, Texas
- Tom Wilson**
Chicago, Illinois

2 Project Description Draft From Team To Dr. D.

Read aloud.

Search your project description for the word "will."

Computer Science CSE498 / 8:00 a.m. - Noon Engineering Building, 1300 Hallway | First Floor

United Airlines Training Scheduling and Optimization System II

United Airlines is the world's second largest airline company, operating 4,600 flights a day to 357 destinations. To maintain its fleet of 1,300 aircraft and ensure successful flights, it is crucial to have properly trained personnel. United's Technical Operations division has 60 instructors, who teach around 700 classes yearly to over 7,000 employees.

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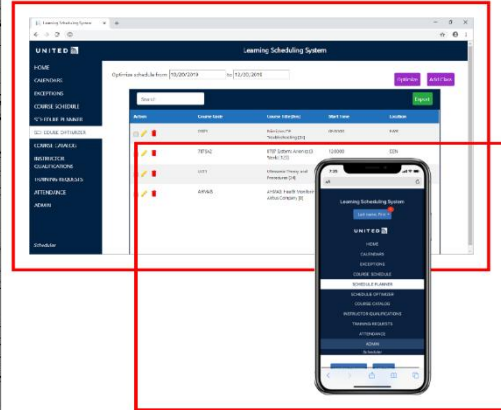
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3 Project Description Edits By James & TMs

Computer Science CSE498 / 8:00 a.m. - Noon Engineering Building, 1300 Hallway | First Floor

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When the scheduler wants to schedule a course, they must take into account a number of factors, including: instructor availability, venue availability, instructor travel distance, and instructor qualifications.

Using our web and iOS apps, users can schedule classes manually, or through our automated schedule optimizer. Manual scheduling can be used effectively for a few classes in a short time frame. However, when dealing with a large number of classes, taking into account all relevant factors, manual scheduling is an arduous task.

Our schedule optimization feature allows a scheduler to input a given time frame, a set of classes, and a set of locations. The optimizer then recommends an optimal schedule, including instructor and classroom assignments.

The optimized schedule minimizes the distance traveled by instructors, and takes into account instructor preferences and room availabilities.

An optimized schedule saves United Airlines significant time, money, and resources.

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Round 1 edits

- Our Training Scheduling and Optimization System II provides a web app to facilitate United's maintenance training schedulers to schedule instructors and students for courses across the country.
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3 Project Description Edits By Jill

Computer Science CSE498 / 8:00 a.m. - Noon Engineering Building, 1300 Hallway | First Floor

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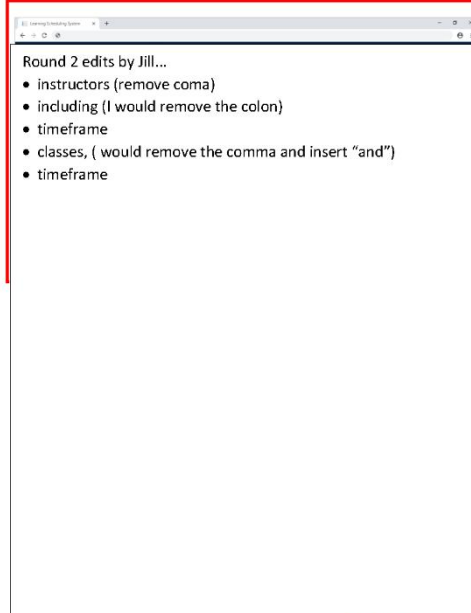
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Round 2 edits by Jill...

- instructors (remove coma)
- including (I would remove the colon)
- timeframe
- classes, (would remove the comma and insert "and")
- timeframe



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Franklin, Michigan

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3 Artwork Draft From Team To Dr. D.

Computer Science CSE498 / 8:00 a.m. - Noon Engineering Building, 1300 Hallway | First Floor

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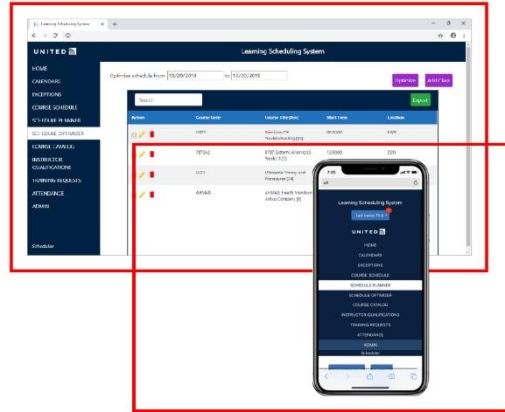
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Chicago, Illinois

3 Artwork Draft From Team To Dr. D.



What's wrong with this artwork?

3 Artwork Draft Feedback by Dr. D.



Dr. D. duplicated existing artwork to illustrate requested update.

3

Artwork Update From Team To Dr. D.

Computer Science CSE498 / 8:00 a.m. - Noon Engineering Building, 1300 Hallway | First Floor

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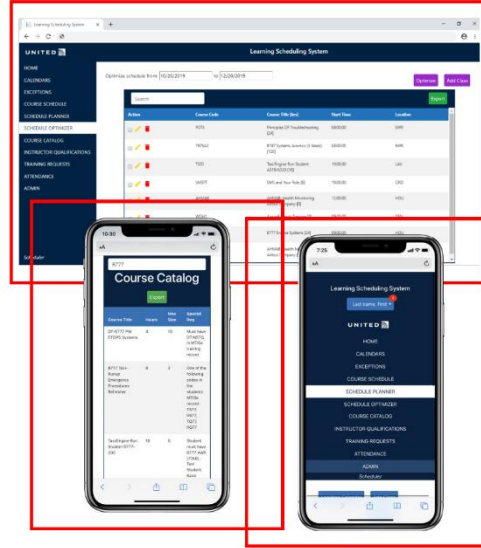
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4 Final Update From Team To Dr. D.

Computer Science CSE498 / 8:00 a.m. - Noon Engineering Building, 1300 Hallway | First Floor

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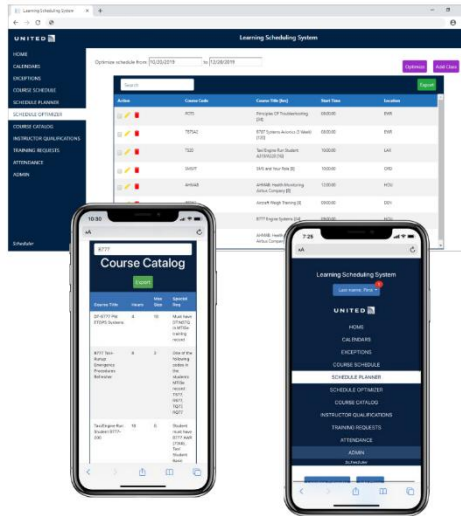
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Final Version From Dr. D. To Designer

Computer Science CSE498 / 8:00 a.m. - Noon Engineering Building, 1300 Hallway | First Floor

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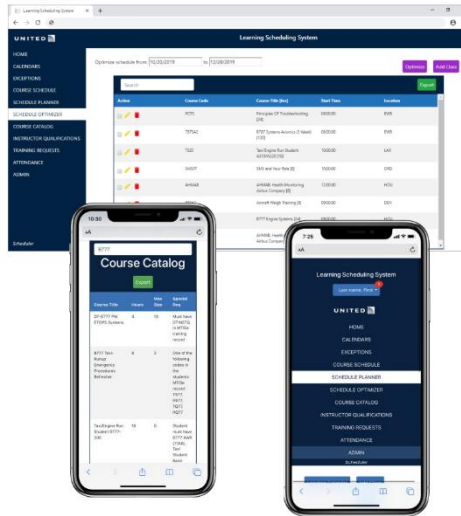
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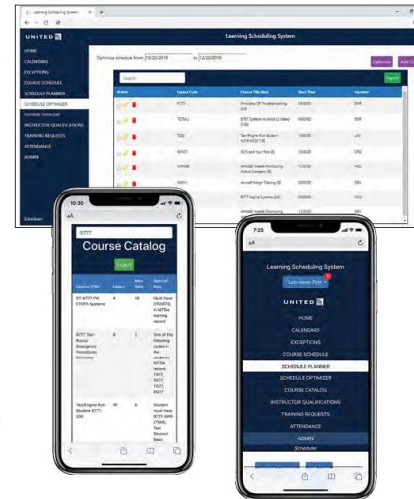
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Project Description Style

[1 of 2]

The image shows a Microsoft Word document template for a Design Day Booklet. The 'Styles' pane on the right lists various styles, with '3-project-description' highlighted. A red box labeled 'Project Description Style' points to this style in the pane and to a paragraph in the document. Another red box labeled '3-project-description' points to the same style in the pane. A third red box labeled 'All project description paragraphs must be of style 3-project-description' points to the paragraph in the document. The document content includes placeholder text for header information, sponsor name, project title, and a detailed project description. The project description text is enclosed in a red box, and several callout boxes provide instructions on how to format and manage the text, such as using paragraph marks and handling overlapping textboxes.

Project Description Style

3-project-description

3-project-description

All project description paragraphs must be of style 3-project-description

Do not use more than four artwork textboxes.

- To insert your artwork, right-click on this artwork (grey rectangle with text within the textbox) and select "Change Picture..."
- Do not change the textbox's red external borders. Use them as handles to move and resize the textbox. The red borders will be made invisible later.
- Delete the artwork textboxes that you do not need.
- Do not use more than four artwork textboxes.
- To layer overlapping textboxes, right-click on a textbox red border, and select "Bring to Front" or "Send to Back."

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Project Description Style

[2 of 2]

WK Kellogg Co Cereal Industry Analysis Tool

→ WK Kellogg Co, home to some of the world's most iconic cereal brands, is one of the largest food manufacturing companies in the nation. Headquartered in Battle Creek, Michigan, WK Kellogg has grown into a major player in the food industry, thanks to its global reach and ability to adapt to shifting consumer demands.¶

→ Operating in over 180 countries, WK Kellogg thrives in the competitive global food market by leveraging data-driven analysis to inform critical business decisions. Recognizing the need for quicker insights, the company has identified the importance of rapidly assessing its current state and expediting decision-making to stay ahead in the industry.¶

→ Our Cereal Industry Analysis Tool using Generative AI, automates data analysis, allowing analysts and financial professionals to explore large datasets and extract valuable insights regarding WK Kellogg as well as its competitors. Through the interactive model, users can generate insights into industry shifts, strategic changes and market trends, which streamlines the decision-making process in the fast-paced food industry. Users can communicate with our system to obtain detailed responses from their preferred AI model.¶

→ The system uses public datasets stored in Snowflake, which serves as the primary data warehouse. SQL commands interact with the Snowflake database and extract information from stored files. Streamlit, a Python framework, powers the web app's front end, enabling user interaction via a chatbot, which leverages a large language model for generating detailed responses.¶

Must Fill PD Textbox

← Left

- Submitted by Team
- Wrong Style
- “Normal”
- Probably Copy-and-Pasted

Right →

- Corrected by Dr. D.
- Correct Style
- “3-project-description”

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Too Short!



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Feb 2 0.Week 4	3 Design Day Production Calendar	4 0.PP Presents	5 1 Dr. Posts Zip Templates 2 Dr. Emails Instructions	6 0.DD Book Process 1 Dr D Discusses Process at All-Hands	7	8
9 0.Week 5 1 Teams Submit Zip Files	10	11 0.PP Presents	12	13 0.No Meeting	14 1 Artwork Clinic	15 1 Teams Submit Zip Files
16 1. Dr D Edits Artwork 2. Dr Posts Artwork 3. TMs Edit Proj Desc 4. Teams Update Art work	17	18 0.C & G Presents 1. Dr D Discusses Discusses Artwork 2. TMs Discuss Proj Desc 3. Teams Submit Art work	19 1. Dr D Edits Artwork 2. Dr Posts Artwork 3. TMs Submit Proj Desc	20 0. Alpha Presents 1. Dr D Discusses Discusses Artwork 2. TMs & JB Discuss PDs 3. JB Edits Proj Desc 4. Teams Submit Art work	21	22 1. JB Submits PD 2. TMs & JB Discuss PDs 3. TMs Edit Proj Desc
23 1. Dr D Submits Assets to Designer 2. Dr D Merges Art & PDs	24	25 0. Alpha Presents	26	27 0. Alpha Presents	28	Mar 1

Revised



Amazon Assets Example

amazon.docx

- Provide
 - Project Description
 - ❖ Exactly Fill Textbox
 - ❖ Search for “will” Etc.
 - Artwork
 - ❖ High Resolution png’s
 - ❖ Delete Unused png’s
- Check Template
 - Sponsor Name
 - Project Title
 - Team Photo
 - Sponsor Logo
 - Team Members
 - Project Sponsors
- Document Template Changes
 - Highlight In Yellow
 - Add Textbox with Explanation
- Check...
 - Everything
 - Every Pass

[1 of 3]

Design Day Booklet Team Page

3200/3300 Hallway | Third Floor, Computer Science and Engineering 8:00 a.m. – Noon | CSE498

Amazon Employee Badge Image Validation Tool

“Tool” was missing from the project title

Amazon is a multinational technology company that has grown to become the world's largest retailer. Founded in 1994 by Jeff Bezos, Amazon has since expanded into various industries, including cloud computing, digital streaming, and artificial intelligence.

As Amazon continues to grow, ensuring a quality employee onboarding process is paramount to supporting Amazon's vision. An efficient onboarding process enables new employees to focus on transitioning without unnecessary delays or disruptions.

Currently, when Amazon hires a new employee, the employee uploads a photo to the employee badge verification system. This photo is manually checked against photo requirements by the Amazon verification team. This process can take days, slowing down the rate in which employees can join Amazon teams.

Our Employee Badge Image Validation Tool streamlines the new employee onboarding process by providing instant feedback on new employee badge photos.

Users simply need to upload their photo to the Employee Badge Image Validation Tool website in order to get feedback on their photo. When a photo is uploaded, our system uses machine learning models to test the validity of the new uploaded photo against standardized badge requirements.

The website displays feedback on photos and gives instructions on how they can improve their photo for the next upload.

Our tool not only saves time for new hires, enabling them to start faster and transition more smoothly into their roles, but also enables Amazon to dedicate more resources to delivering quality services to their customers.

Our web application is responsive and scalable due to a robust set of Amazon Web Services. The front end is hosted on AWS Amplify and back-end requests are handled by API Gateway, Lambda, Rekognition, and S3.

amazon

Michigan State University
Team Members (left to right)

Aru Srivastava
Northville, Michigan

Katelyn Hurst
Grand Rapids, Michigan

Jack Hammond
Sibley Township, Michigan

Timmy Wu
Grand Rapids, Michigan

Khloe Hayes
Lowell, Michigan

Wayne Dyksen no longer works at Amazon

Amazon
Project Sponsors

Manasa Dantu
Detroit, Michigan

Wayne Dyksen
Grand Rapids, Michigan

Garret Gaw
Detroit, Michigan

Derek Gebhard
Detroit, Michigan

Stefan Najor
Detroit, Michigan

Ed O'Brien
Detroit, Michigan

Sean Whipple
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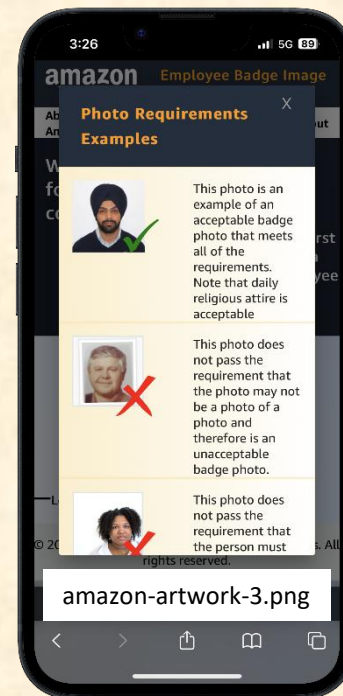
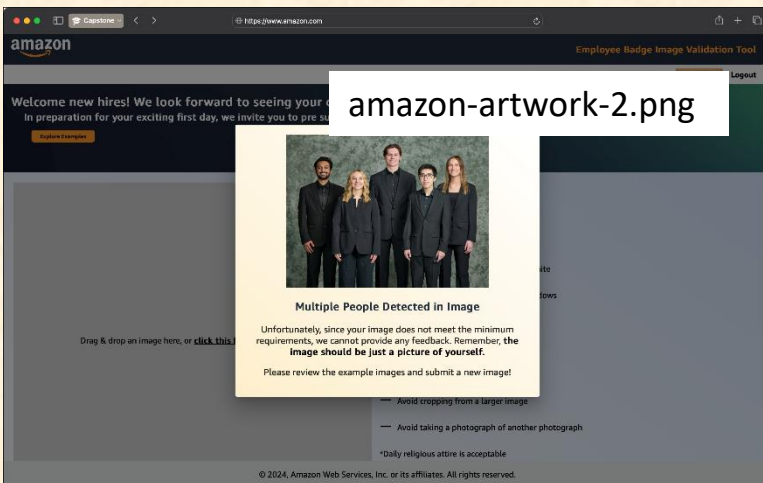
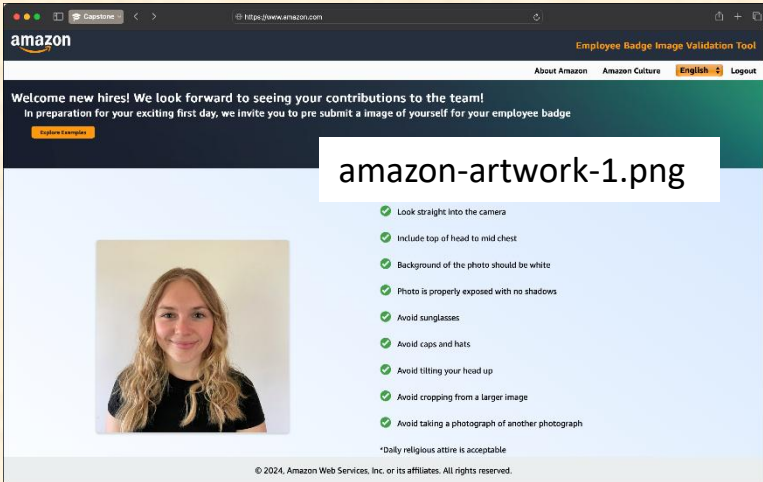
Grand Rapids was in lower case.

PAGE N + 3

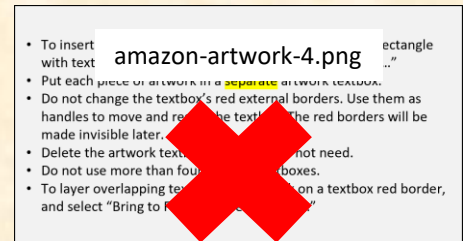


Amazon Assets Example Artwork

[2 of 3]



Delete unused
template artwork files.



Amazon Assets Example

Assets Folder and Zip File

[3 of 3]

- Assets Folder

- Name: amazon-assets

- Contents

- amazon-page.docx

- amazon-artwork-1.png (Very High Resolution)

- amazon-artwork-2.png (Very High Resolution)

- amazon-artwork-3.png (Very High Resolution)

- ~~○ amazon-artwork-4.png (Deleted)~~

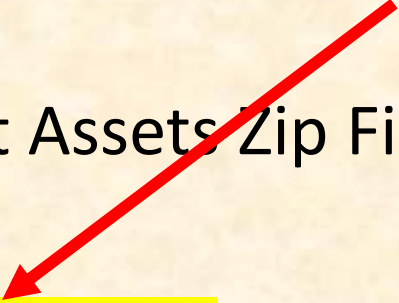
- Assets Zip File

- Name: amazon-assets.zip

- Uploaded to General Channel File Space



Assets Zip File Submission

- READ Submission Instructions Carefully
 - Upload to Microsoft Teams
 - General Channel File Space
 - Folder Named “Design Day Booklet Assets Zip Files”
 - Team’s Private Channel File Space
 - **Draft: Due 11:59 p.m., Sunday, February 9**
 - Artwork Clinic: Friday, February 14
 - Final: Due 11:59 p.m., Saturday, February 15
- Revised**
- 



Office 365 Word on Windows

- Open and Edit Team Page ONLY
 - Office 365 Word
 - On Windows
 - Natively
 - Capstone Lab VM
- Do NOT
 - Use Web Version of Word
 - Use Microsoft Teams' Version of Word
 - Open and/or Edit Collaboratively in Teams
 - Open and/or Edit with Apple's Pages or Google Docs
- See Syllabus
 - [Editing Documents and Presentations Using Office 365](#)
 - Read Carefully



DDB Artwork Feedback Clinic

- Who?
 - Dr. D.
 - Artwork Person or Persons from Your Team
- What?
 - Design Day Booklet (DDB) Project Page
 - Feedback on Artwork
- Where?
 - Dr. D.'s Office
 - EB 3149
- When?
 - Friday, February 14
 - Same Schedule as Team Photos
- Why?
 - Have Best DDB Pages
 - Short Timeframe



MAPP Points and DD Booklet Process

- MAPP Points
Meeting Attendance, Preparation and Participation
- May be deducted for...
 - ...not following instructions.
 - ...missing deadlines.
 - ...writing a poor project description.
 - ...providing poor artwork.
 - ...etc.
- Will be deducted from every team member.
- Instructors will fix things, but...



What's ahead?

[1 of 5]

- Upcoming Meetings
 - ~~02/04, Tu: Team Project Plan Presentations~~
 - ~~02/06, Th: Design Day Booklet Process~~
 - 02/11, Tu: Team Project Plan Presentations
 - 02/13, Th: No Meeting
 - 02/18, Tu: Creating and Giving Presentations
 - 02/20, Th: Alpha Presentations
 - 02/25, Tu: Alpha Presentations
 - 02/27, Th: Alpha Presentations



What's ahead?

[2 of 5]

- Design Day Booklet Process

- ~~02/06, Th: Discuss in All Hands~~

Revised

- 02/09, Su: First Draft Due ← **3 Days**

- 02/14, Fr: Artwork Clinic ← **1 Week from Friday**

- Why: Provide Artwork Feedback

- Where: Dr. D.'s Office

- What: Design Day Booklet Team Page

- Who: Team Members Responsible for Artwork

- When: Same Schedule as Team Photos

- 02/15, Sa: Final Draft Due ← **1 Week from Saturday**



What's ahead?

[3 of 5]

Artwork Clinic Schedule, Friday, February 14

→ Put On Calendar ←

- 10:00 AM: UWM
- 10:10 AM: Corewell Health
- 10:20 AM: HAP
- 10:30 AM: Auto-Owners
- 10:40 AM: Whirlpool
- 10:50 AM: Meijer
- 11:00 AM: Stryker IST
- 11:10 AM: GM
- 11:20 AM: RPM
- 11:30 AM: WK Kellogg Co
- 11:40 AM: Launch
- 11:50 AM: Anthropocene Institute
- 12:00 PM: Henry Ford eLUG
- 12:10 PM: Magna
- 01:10 PM: Urban Science
- 01:20 PM: NetJets
- 01:30 PM: Henry Ford RSE
- 01:40 PM: MSUFCU
- 01:50 PM: Amazon
- 02:00 PM: TechSmith
- 02:10 PM: Ally
- 02:30 PM: Delta Dental 3DADPH
- 02:40 PM: MSU CSE RJC
- 02:50 PM: Volkswagen
- 03:00 PM: MSU CSE SDRC
- 03:10 PM: Union Pacific
- 03:20 PM: McKesson
- 03:30 PM: Henry Ford RSVP
- 03:40 PM: Delta Dental dSLATE
- 03:50 PM: MSU Linguistics



What's ahead?

[4 of 5]

- Alpha Presentation
 - Th: 02/20, Tu: 02/25, Th: 02/27
 - Purpose: Demonstrate Your Team
 - Has Mitigated All Risks
 - Able to Meet All Specifications
 - Will Deliver Your Project on Time
 - Presentation
 - Rehearsed
 - Time: 14-Minutes
 - Demonstrate Working Software ←Note
 - 10% of Team Grade
 - Both Due Midnight, Wednesday, 02/19 ←3 Weeks from Th
 - Presentation Schedule Posted Evening Before First



What's ahead?

[5 of 5]

- Capstone Due Dates / Deadlines
 - Published at Start of Semester
 - See [Weekly Schedule](#)
 - See [Major Milestones](#)
 - Immovable
 - Your team depends on you.
 - You must get your tasks done on time.
 - Plan well in advance.
 - If you are “stuck,” ask for help sooner rather than later.
 - If you are not going to complete your tasks...
 - ❖ ...tell your team well in advance of the deadline.
 - ❖ ...another team member will complete your task.
 - ❖ ...your team may be told they no longer need to depend on you.

