MICHIGAN STATE UNIVERSITY

01/18: Project Plan

The Capstone Experience

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Department of Computer Science and Engineering Michigan State University Spring 2024



From Students... ...to Professionals

Project Plan

Functional Specifications

Design Specifications

Technical Specifications

Functional Specifications

- What does it do? (Not "how" does it do it?)
 - What's your client's problem?
 - What's your solution?
 - What's the value of your product? "What's the Point?"
- Includes
 - List of Objectives
 - Use Cases
 - Vignettes
 - Of How User Would Use of Your System
- Focus on Functionalities, not Features
- Not Necessarily Complete
- Understandable by End User
- Initial Problem Statement
- Usually Refined

Functional Specifications Examples

• Ally

- Improve Investor Engagement and Satisfaction
- By Answer Shareholder Questions
- With an Interactive Chatbot

Understandable by End User

- TechSmith
 - Make Video Editing Seamless
 - By Trimming and Enhancing Video Content
 - Using Machine Learning Models
- Union Pacific
 - To Increase Efficiency and Productivity
 - By Train Employees for Annual Exams
 - With a Website and Mobile App

Functional Specifications Interactions With Your Client

- Derived With/From Client
- Documented For Client
- Presented to Client
- Agreed Upon With Client
- Your Job to Capture the Client's Intent!

Project Plan

✓ Functional Specifications

Design Specifications

Technical Specifications



Design Specifications

- What's the user experience (UX)?
 - How does a user use it?
 - How does it look and feel?
 - What are the features?
- Includes
 - Business Process Flow
 - Specific Features
 - Use Cases
 - Screen Mockups
 - Data Flow Diagrams
 - Data Organization
 - Etc...
- Identifies All the Parts and Their Interactions
- (Mostly) Understandable by End User
- Usually Refined

Design Specifications Examples

Amazon

- Design an Intuitive Web App
- Train and Develop a Machine Learning Model
- Analyze ID Photos for Quality and Errors
- Provide Users with In-Depth Feedback on Photos
- Google
 - Analyze Android Vulnerability Information
 - Collect and Store Data Within a Database
 - Design an Intuitive User Interface
 - Display Data Based on User Input
 - Provide Insights on Vulnerability Patterns
- United Airlines Training
 - Check for Specified Courses in Training Records
 - Automatically Send Relevant Documents to Technicians
 - Build Intuitive Progress Checker for Safety Checks
 - Incorporate Digital Signatures
 - Automate Data Validation and Storage

Mostly Understandable by End User

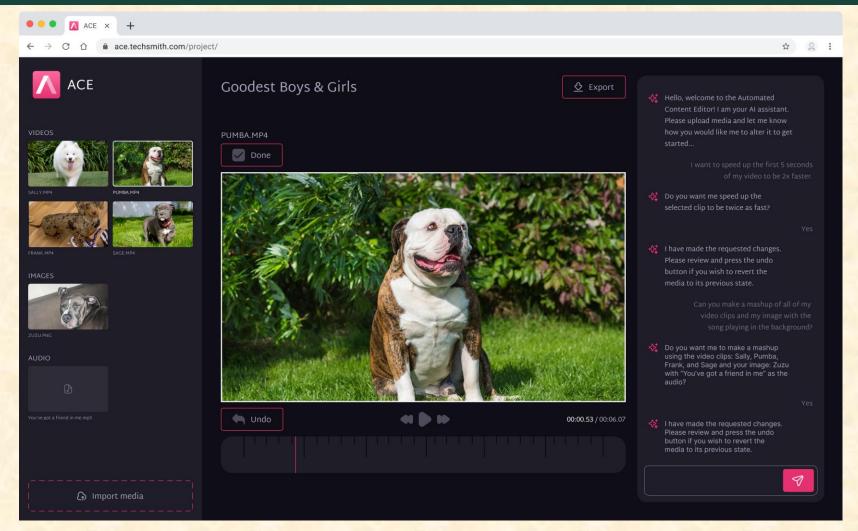
Screen Mockups

- User Interface Only
 - Shows Layout, Buttons, Pull-Downs, Etc...
 - Non-Functional
 - No Back End
- Helpful for Developing
 - Functional Specifications
 - Look-and-Feel
 - Use Cases
- Can Create with...
 - PowerPoint (Developer View)
 - Photoshop
 - Figma
 - Etc...
- Embed Mockups in Platform Frames
 - Web Browsers and Mobile Devices
 - Eliminate Shadows
 - See <u>mockuphone.com</u>
- NOT Screen Captures of Other Software

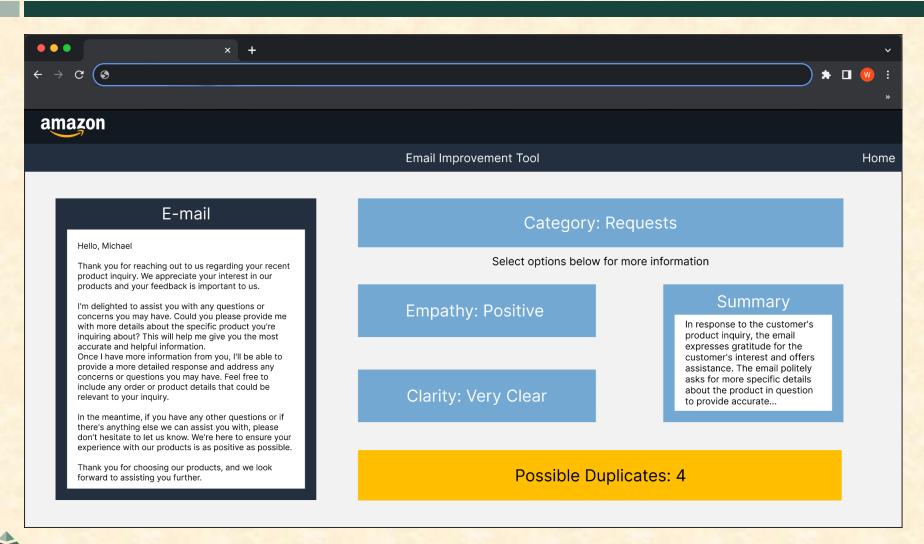
Screen Mockups

- "Use" with Clients
- Show to Clients
- Go Through Use Cases with Clients

Screen Mockup Example



Screen Mockup Example



Screen Mockups Example



Project Plan

Screen Mockups Example

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Design Specifications Interactions With Your Client

- Derived With/From Client
- Documented For Client
- Presented to Client
- Agreed Upon With Client
- Your Job to Capture the Client's Intent!

Project Plan

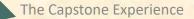
✓ Functional Specifications

✓ Design Specifications

Technical Specifications

Technical Specifications

- How does it do it?
- Identifies All the Parts and Their Interactions
- Everything a Developer Needs to Write the Code
- Includes Things Like...
 - Overall System Architecture
 - Machine Architectures
 - Software Technologies
 - Algorithms
 - Production Environments
 - Development Environments
 - SDK's (Software Development Kits)
 - Network Topology
 - Database Schema
 - Continued...



[1 of 2]

Technical Specifications

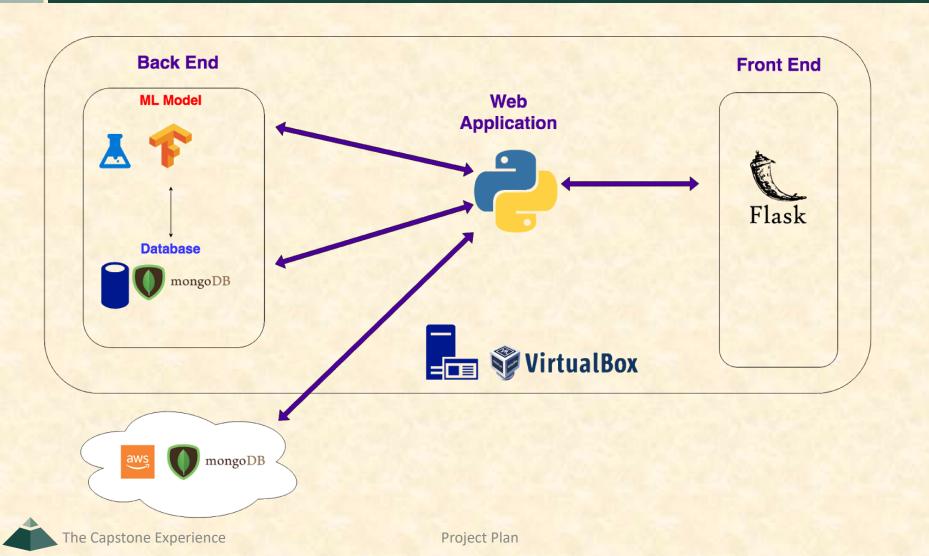
- Includes Things Like...
 - Object Models and Class Diagrams
 - UML Diagrams
 - Pseudo Code
 - Function Prototypes
 - Schedule
 - Test Plan
 - Risk Analysis
 - Etc...
- Probably Not Understandable by End User
- Usually Refined

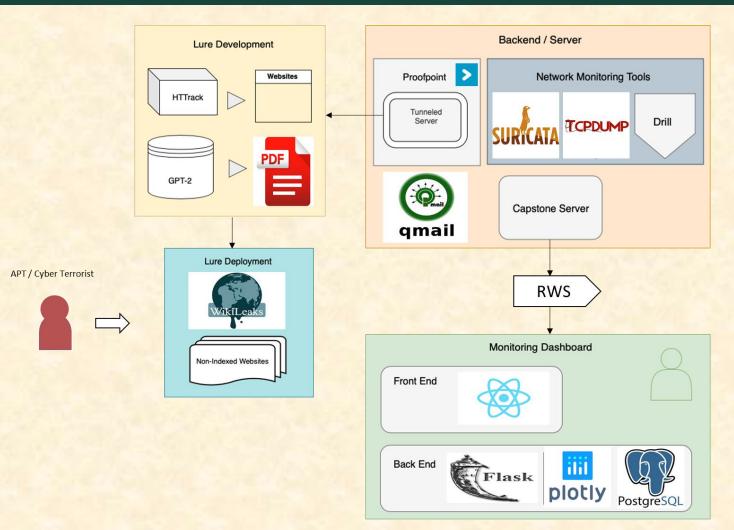
[2 of 2]

Technical Specifications Examples

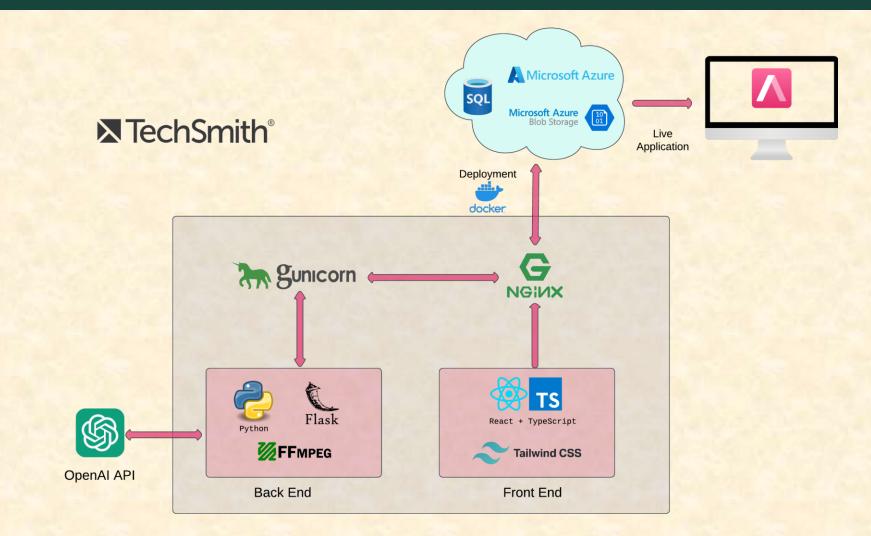
- DRIVEN-4
 - Python
 - Pandas
 - Flask API
 - SQL
- Ludus
 - PHP with Laravel Framework
 - OpenAl API
 - HTML5 Canvas and Helper Libraries
 - Ngnix + Linux
- Vectra Al
 - Vectra C2 Simulator
 - MAAD Attack Framework
 - DeRF

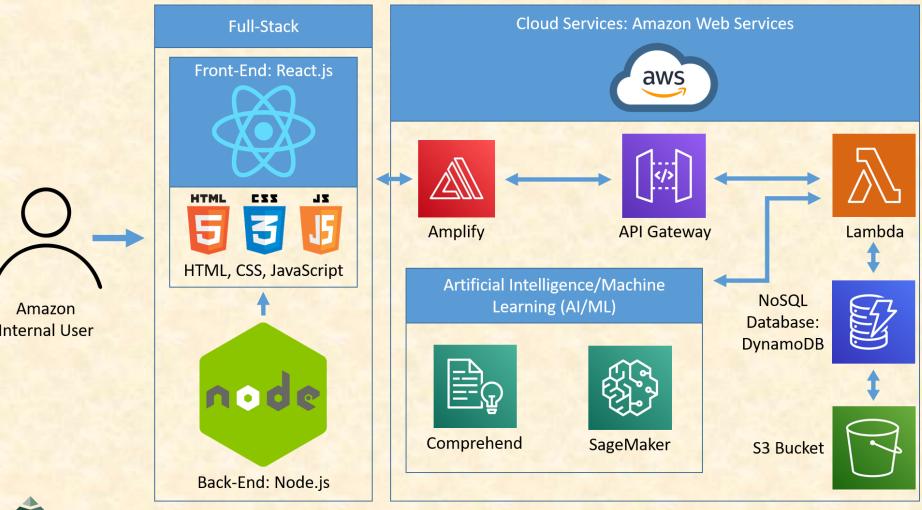
Probably <u>Not</u> Understandable by End User





The Capstone Experience





The Capstone Experience

Project Plan

Approach

- Break Big Problems Into Smaller Problems
- Identify Constraints
- Identify "Risks"—Things You Don't...
 - ...Know
 - ...Understand
 - ...Know How To Do
- Consider Tradeoffs
- Select Appropriate Technologies

Technical Specifications Interactions With Your Client

- Derived With/From Client
- Documented For Client
- Presented to Client
- Agreed Upon With Client
- Your Job to Capture the Client's Intent!

Cannot be emphasized enough!

Project Plan Summary

- Canonical Table of Contents
 - Executive Summary
 - Specifications
 - o Functional: What does it do?
 - Design: How does it look and feel?
 - o Technical: How does it do it?
 - Testing Plan
 - Schedule
- See Examples on Downloads Page

- Quickly identify...
 - ...what you don't know,
 - ...what you don't understand, and
 - ...what you don't know how to do.
- Conceptually...
 - Start with functional specifications.
 - Get agreement with client.
 - Include as first part of project plan.
 - Do design specifications.
 - Get agreement with client.
 - Include as 2nd part of project plan.
 - Do technical specifications.
 - Get agreement with client.
 - Include as 3rd part of project plan.
 - Do schedule.
 - Do development, testing, and deployment.
- In CSE498, must do all three in parallel (and iterate).

[1 of 4]

[2 of 4]

Approach

- Make Skeleton Document Immediately
 - Will Get You Organized and Focused
 - Include "Under Construction" Sections (Totally Empty)
- Develop In Parallel When Possible But...
 - Complete Functional First
 - Complete Design Second
 - Complete Technical Third
- Refine As Needed
- Assign Sections to Team Members
- Share with Client
 - Ask For (Specific) Feedback
 - Highlight What's New
 - Tricky Balance
 - Not Enough?
 - Too Much?

"Is this what you had in mind?"

- Schedule Dictated By...
 - Course
 - Project Sponsor
 - Team
 - TMs
- <u>Schedules > Major Milestones</u>
 - 01/30: Project Plan Presentations
 - 02/20: <u>Alpha Presentations</u>
 - 03/28: <u>Beta Presentations</u>
 - 04/16: Project Videos
 - 04/17 <u>All Deliverables</u>
 - Other Milestones By Educated Guesses
- Track To It At Least Weekly at Triage Meetings
- Revisit Often and Revise If Necessary
- Delivery Slippage == Graduation Slippage

[3 of 4]

- "Living Document"
- Make Sure Your Project Plan Has...
 - Cover Page
 - Title
 - Table of Content
 - Page Numbers
 - Headers and Footers
 - Etc...

(That is, make sure your plan looks professional.)

Interactions With Client

Client May Specify...

- Requirements
 - Functional
 - Design
 - Technical Requirements
 - Operating Systems
 - Programming Languages and Environments
 - Web Technologies
 - o Etc...
 - Legacy
- Milestones
- Etc...

(You may explore and propose other ideas.)

Nota Bene: Project Plan

- PowerPoint Template Provided
- Must Use Windows Office 365
 - Word and PowerPoint
 - Included with Windows 11 VM.
 - Get it done now!
 - See Syllabus.
- How many...
 - ...drafts will you write? Many.
 - ...drafts will you share with your client? A Couple.
 - ...final documents will you submit for CSE498? One
- Due Date
 - 11:59 p.m. ET, Monday, January 29
 - ~1.5 Weeks
 - Slide Decks Submitted Through Teams
 - Documents Sent Directly to TMs
- Split-Hands Formal Presentations
 - January 30, February 1
 - Presentation Schedule
 - Every team must be ready for Tuesday, January 30
 - Posted Evening of Monday, January 29
 - Email Instructors IMMEDIATELY if Conflict

Resources on the Web

- Other Links > Downloads
 Project Plan Examples
 - Fall 2022
 - Team Ally
 - Team Amazon
 - Team Lockheed Martin Space
 - Team Roosevelt Innovations Data Science
- High Resolution Sponsor Logo
 - Zip file sponsor.logos.zip
 - Microsoft Teams General Channel File Space
 - High Resolution png With Transparent Background

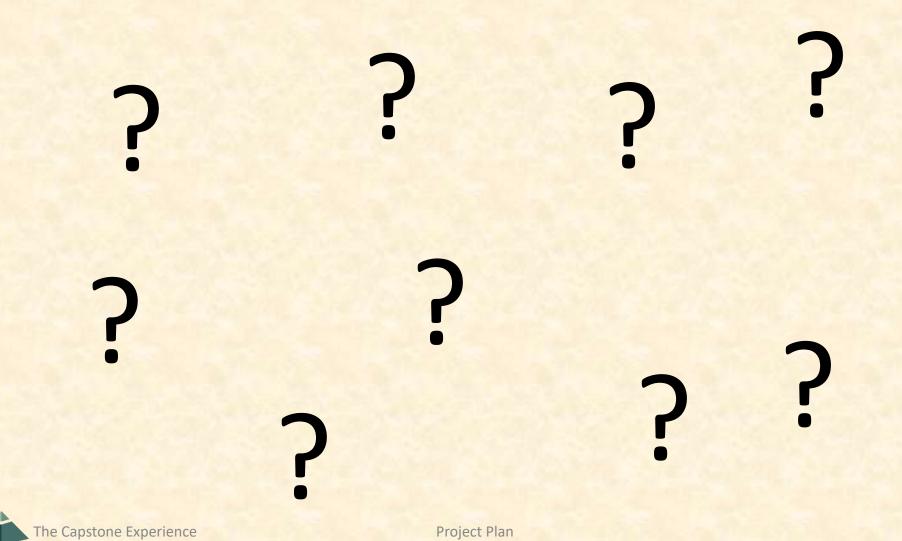
Project Plan

Functional SpecificationsDesign Specifications

✓ Technical Specifications



Questions?



What's ahead?

- Upcoming Meetings
 - = 01/16, Tu: Risks and Prototypes
 - = 01/18, Th: Project Plan
 - 01/23, Tu: Team Status Report Presentations
 - 01/25, Th: Schedule and Teamwork
 - 01/26, Fr: Team Photos (10:00 a.m. 4:00 p.m.)
 - 01/30, Tu: Team Project Plan Presentations
 - 02/01, Th: Team Project Plan Presentations

10% of Team Grade

[1 of 4]

What's ahead?

[2 of 4]

- Split-Hands Meetings
 - Used On Presentation Days

 01/23: Team Status Report Presentations
 01/30, 02/01: Team Project Plan Presentations
 - Three Locations
 - Luke: 152 Natural Resource
 - Griffin: 2250 Engineering
 - Sam: 158 Natural Resources
 - Find the rooms in advance.
 - Attendance Taken As Usual Including Lateness

What's ahead?

- 01/23: Team Status Report Presentations
 - Next Tuesday Note
 - Split-Hands Meeting
 - Slide Deck Template Posted on Downloads Page

 - Read Submission Instructions Carefully
 - Due by 11:59 p.m. ET, Monday, 01/22
 - Upload Two Times to Microsoft Teams
 - To General Channel File Space
 Folder "Team Status Report Presentation Slide Decks"
 - To Capstone Team's Private Channel
 - Aggregated Slide Decks by TM
 - On TM's Laptop Used by All Teams
 - One or More Presenters Per Team
 - o Random Order

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Office 365 on Windows

• Do

- Download Template
- Edit Template Using Only Office 365 On Windows
- Version of Office on the Windows VM is Acceptable

• Don't

- Use Web Version of Office
- Use Mac Version of Office
- Use Mac Version of Office and Export to Windows Version
- Use Mac Keynote and Export to Office
- See Syllabus.
 <u>Editing Documents and Presentations Using Office</u>

Read Me

[1 of 2]

Presenting

- The Status Report Presentations will be given on Tuesday, January 23.
- The purpose of your Status Report Presentation is for your team to demonstrate that you have made significant progress on your project. In particular, you will give status reports on a variety of things including the status of project sponsor contact, project sponsor meeting schedules, team meeting schedules, team organization, server systems and software, development systems and software, a brief description of the project the status of your project plan and the initial identification of risks.
- The time limit for your presentation is 6 minutes, **Constant** itrictly enforced. Practice your presentation to ensure that your team will finish within the allotted time of 6 minutes.
- Be ready to answer questions, including tough questions.
- We will meet in "split-hands" meetings. Luke's teams will meet in 152 Natural Resources, Griffin's teams will meet in 2250
 Engineering, and Sam's teams will meet in 158 Natural Resources.
- Dr. D. will combine the individual team slide decks into multiple slide decks, one for each TM.
- Your TM will project the combined slide decks using their laptop, which your team will use for your presentation.
- Your team may have one or more presenters.
- The order in which the teams will present will be random.

READ ME

[2 of 2]

- Creating and Editing
 - Read and follow the instructions in "Editing Documents and Presentations Using Office 365" of our course syllabus.
 - You must use this PowerPoint slide deck template as is. Do not change the number of slides unless the instructions explicitly allow you to duplicate slides. Do not change the order of the slides. Do not change the styles. Do not edit the master slides.
 - Throughout the template, replace placeholders [...] with the appropriate information.
 - Edit the center footer by clicking the Header & Footer button on the Insert ribbon. Change [Team Name] in the footer to your company name as in "Team TechSmith Status Report Presentation". If necessary, extend the width of the center footer textbox on the master slide, making sure that you re-center the enlarged textbox.
 - Do not include any company confidential information in your presentation.
 - Delete every textbox that includes "Delete this textbox" and every slide that includes "Delete this slide."
- Submitting
 - All presentations must be submitted to us and to your client by 11:59 p.m., Monday, January 22.
 - Name your PowerPoint slide deck file as "team-[team-name]-status-report-presentation.pptx" replacing "[team-name]" with your team's name normalized by using all lower case, deleting non-numeric and non-alphabetic characters, and replacing blanks by dashes. Examples include "team-kelloggs-status-report-presentation.pptx" and "team-delta-dental-knowledgescience-1-status-report-presentation.pptx".
 - Upload your PowerPoint slide deck to the folder "Status Report Presentation Slide Decks" in our Microsoft Teams General Channel file space by 11:59 p.m., Monday, January 22. In addition, upload your slide deck to your team's private channel file space in case your slide deck is deleted by accident from the General Channel file space, and you need to prove that you did indeed upload your slide deck by the due date and time. Set File Explorer or Finder to show all file extensions to ensure that there are no blanks before the ".pptx" extension as in "team-amazon .pptx".
 - Email a copy of your slide deck to your client as well by 11:59 p.m., Monday, January 22. Do not cc us on that email. Include some professional text in the body of your email to practice being a professional and to avoid having your email sent to your project sponsor's junk folder.

The Capstone Experience

Team [Team Name] Status Report Presentation

UNIVERSITY Status Report Presentation [Project Title 36pt]

Status Information:

Think clicking "Status" on an Amazon order.

- You bought this on Monday, January 8. Helpful?
- We're going to send this to you. Satisfied?
- People who bought this also bought.... We good?

Where the \$*(%(\$* is my order?

Delete this textbox.

The Capstone Experience

Team [Team Name 24pt]

MICHIGAN STATE

[Team Member 1 16pt] [Team Member 2 16pt] [Team Member 3 16pt] [Team Member 4 16pt] [Team Member 5 16pt] [Team Member 6 16pt]

Department of Computer Science and Engineering Michigan State University

Spring 2024



From Students... ...to Professionals

Team [Team Name] Status Report

[Project Title]

- Sponsor Overview
 - Overview Point 1
 - Overview Point 2
 - Overview Point 3
- Project Overview
 - Description Point 1
 - Description Point 2
 - Description Point 3
 - Description Point 4

Describe your sponsor is 30 seconds or less.

Delete this textbox and the brace to the left.

Describe your project in 30 seconds or less.

What problem does it solve?

Who will use it? How will they use it?

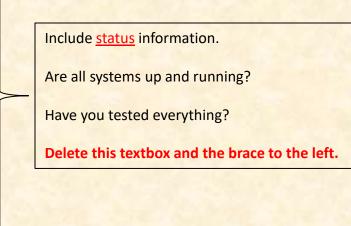
Delete this textbox and the brace to the left.

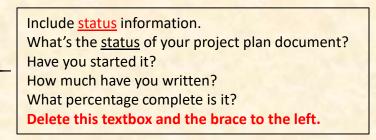
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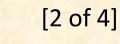
Team [Team Name] Status Report

[Project Title]

- Server Systems / Software
 - Description &/or Status Point 1
 - Description &/or Status Point 2
 - Description &/or Status Point 3
- Development Systems / Software
 - Description &/or Status Point 1
 - Description &/or Status Point 2
 - Description &/or Status Point 3
- Project Plan Document
 - Status Point 1
 - Status Point 2
 - % Complete







Team [Team Name] Status Report [Project Title]

- Client Contact
 - Status Point 1
 - Status Point 2
- Team Meetings
 - Status Point 1
 - Status Point 2
- Team Organization
 - Description Point 1
 - Description Point 2

Include <u>status</u> information. Have you talked with/met with your client? Have you scheduled a weekly conference call? When? Have you scheduled an in-person meeting? When? How many times has your team met so far? Have you scheduled team meetings? How often? Delete this textbox and the brace to the left.

Include status information.

Who's doing what?

Delete this textbox and the brace to the left.

Team [Team Name] Status Report

[Project Title] Risks

- Risk 1
 - Description
 - Mitigation
- Risk 2
 - Description
 - Mitigation
- Risk 3
 - Description
 - Mitigation
- Risk 4
 - Description
 - Mitigation

The Capstone Experience

A "Risk" is a significant task that you need to accomplish that you currently do not know how to do. Usually, a risk is a "showstopper," meaning if you cannot complete the task, you cannot complete your project.

"Mitigation" for a particular risk is your plan for eliminating that risk; that is, your plan for figuring out how to accomplish the task.

List only "real" risks. For example, learning new computer languages is **not** a risk for an MSU CSE student.

Give "useful" explanations of how you are going to mitigate each risk. For example, "we will learn how to do it" is **not** a useful explanation.

What's ahead?

• 01/30, 02/01: Project Plan Presentations

- ~1.5 Weeks From Today ← Note
- 2 Split-Hands Meeting
- Presentation Schedule
 - Posted Evening of Monday, January 19
 - Email Instructors IMMEDIATELY if Conflict
- Slide Deck Template Posted on Downloads Page
 - Must Use Windows Version of Office 365 ← Note
 - Read Submission Instructions Carefully
 - Due by 11:59 p.m. ET, Monday, January 19
 - Upload Two Times to Microsoft Teams
 - To General Channel File Space Folder "Team Project Plan Report Presentation Slide Decks"
 - To Capstone Team's Private Channel
- 12 Minute Time
 - Strictly Enforced
 - o Includes
 - Setup Time
 - Questions
- Use Team Member's Laptop
 - Talk to TM for Adapter
 - Test in Room in Advance
- Dress code for presenting teams is business casual.

[4 of 4]

Read Me

[1 of 2]

Presenting

- The purpose of the Project Plan Presentation is to convince everyone that your team has scoped your project, understands the functional, design and technical specifications, and that your team has a crafted plan to develop, debug and deliver your project to your client on time (Wednesday, April 17) and on budget (\$0).
- The time limit for your presentation is 12 minutes, **Content** strictly enforced. Practice your presentation to ensure that you will finish within the allotted time.
- Each team will present using their own laptop. You will be provided with a wireless presenter. Ask your TM for adapters to connect the laptop that you will be using to the audio/visual equipment in your presentation room. Test <u>in advance</u> in the room in which you will presenting with the laptop that your team will be using.
- We will meet in "split-hands" meetings. Luke's teams will meet in 152 Natural Resources, Griffin's teams will meet in 2250 Engineering, and Sam's teams will meet in 158 Natural Resources.
- All team members of the presenting teams are required to dress business casual on the day of their presentation. Business casual does not include jeans, sneakers, tennis shoes, hats, coats, hoodies, t-shirts or shirts that are not tucked into pants.
 Google "what is business casual."
- Although the presentations will be scheduled over the course of two meetings, all teams must be prepared to present on the first day scheduled, Tuesday, January 30.
- The presentation schedule will be posted on our <u>Weekly Schedule</u> page in the evening of Monday, January 29.

READ ME

[2 of 2]

- Creating and Editing
 - Read and follow the instructions in "Editing Documents and Presentations Using Office 365" of our course syllabus.
 - You must use this PowerPoint slide deck template as is. Do not change the number of slides unless the instructions explicitly allow you to duplicate slides. Do not change the order of the slides. Do not change the styles. Do not edit the master slides.
 - Throughout the template, replace placeholders [...] with the appropriate information.
 - Edit the center footer by clicking the Header & Footer button on the Insert ribbon. Change [Team Name] in the footer to your company name as in "Team TechSmith Project Plan Presentation". If necessary, extend the width of the center footer textbox on the master slide, making sure that you re-center the enlarged textbox.
 - Do not include any company confidential information in your presentation.
 - Delete every textbox that includes "Delete this textbox" and every slide that includes "Delete this slide."
- Submitting
 - All presentations are due to us and to your client by 11:59 p.m., Monday, January 29.
 - Name your PowerPoint slide deck file as "team-[team-name]-project-plan-presentation.pptx" replacing "[team-name]" with your team's name normalized by using all lower case, deleting non-numeric and non-alphabetic characters, and replacing blanks by dashes. Examples include "team-kelloggs-project-plan-presentation.pptx" and "team-urban-science-project-plan-presentation.pptx". Set File Explorer or Finder to show all file extensions to ensure that there are no blanks before the ".pptx" extension as in "team-amazon.pptx".
 - Upload your PowerPoint slide deck to the folder "Project Plan Presentation Slide Decks" in our Microsoft Teams General Channel file space by 11:59 p.m., Monday, January 29. In addition, upload your slide deck to your team's private channel file space in case your slide deck is deleted by accident from the General Channel file space, and you need to prove that you did indeed upload your slide deck by the due date and time.
 - Email a copy of your slide deck to your client as well by 11:59 p.m., Monday, January 29. Do not cc us on that email. Include some professional text in the body of your email to practice being a professional and to avoid having your email sent to your project sponsor's junk folder.

MICHIGAN STATE IVERSITY **Project Plan Presentation** [Project Title 36pt] The Capstone Experience Team [Team Name 24pt] [Team Member 1 16pt] [Team Member 2 16pt] [Team Member 3 16pt] [Team Member 4 16pt] [Team Member 5 16pt]

[Team Member 6 16pt]

Department of Computer Science and Engineering Michigan State University

Spring 2024



From Students... ...to Professionals

Project Sponsor Overview

- Point 1
- Point 2
- Point 3
- Etc...

Describe your project sponsor in 60 seconds or less

Add some interesting artwork about your sponsor. Look on your sponsor's website.

Project Functional Specifications

- Point 1
- Point 2
- Point 3
- Etc...

This is your project overview.

Describe what problem your project solves.

Answer the question "What does your project do?"

This is your "elevator pitch".

Project Design Specifications

- Point 1
- Point 2
- Point 3
- Etc...

Articulate a summary of your project's major features as well as its overall design.

Screen Mockup: [Title 1]

You may include as many screen mockups as you have like, but you must include <u>at</u> <u>least four</u> examples.

To include more than four, you can duplicate this slide as many times as necessary.

Good screen mockups should help you elicit project specifications from your client.

Do not include screen mockups of trivial things such as splash screens or login screens.

Do <u>not</u> include screen grabs of other software.

Give each screen mockup slide a title.

See below for examples and instructions.

Screen Mockup: [Title 2]

You may include as many screen mockups as you have like, but you must include <u>at</u> <u>least four</u> examples.

To include more than four, you can duplicate this slide as many times as necessary.

Good screen mockups should help you elicit project specifications from your client.

Do not include screen mockups of trivial things such as splash screens or login screens.

Do <u>not</u> include screen grabs of other software.

Give each screen mockup slide a title.

See below for examples and instructions.

Screen Mockup: [Title 3]

You may include as many screen mockups as you have like, but you must include <u>at</u> <u>least four</u> examples.

To include more than four, you can duplicate this slide as many times as necessary.

Good screen mockups should help you elicit project specifications from your client.

Do not include screen mockups of trivial things such as splash screens or login screens.

Do <u>not</u> include screen grabs of other software.

Give each screen mockup slide a title.

See below for examples and instructions.

Screen Mockup: [Title 4]

You may include as many screen mockups as you have like, but you must include <u>at</u> <u>least four</u> examples.

To include more than four, you can duplicate this slide as many times as necessary.

Good screen mockups should help you elicit project specifications from your client.

Do not include screen mockups of trivial things such as splash screens or login screens.

Do <u>not</u> include screen grabs of other software.

Give each screen mockup slide a title.

See below for examples and instructions.

Screen Mockup Instructions

- Ensure that your mockups...
 - are readable (size-wise),
 - have the correct aspect ratio,
 - are scalable, and
 - are centered vertically (between the green bar in the title and the footer) and horizontally (Use Home > Arrange > Align).
- The screen mockups should not contain any bordering transparent or whitespace. Use <u>paint.net</u> to crop them appropriately and change any bordering whitespace to transparent.
- In PowerPoint use Home > Arrange > Group to group the objects in your mockup into a single object that can be copied-and-pasted (and scaled).
- Embed your screen mockups into platform frames, like a mobile phone or a tablet or a web browser. See <u>https://mockuphone.com</u>.
- Do not submit screen mockups with platform frames that have shadows. If you start with a platform frame with a shadow, remove the shadow with software like paint.net or Adobe photoshop.

Screen Mockups: Web Interface

New Tab	×	Gue
\leftarrow \rightarrow C D https://cybsecm	gmt.aptiv.com	
• A P T I \	V • =	🖆 🗖 🌲 🔕
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	Q Project Status: Finalized	
Main Navigation		netration Final Approval Finalized
希 Dashboard	Remediation Assessment Ass	sessment
Products	<	
🗾 Tasks	Recent Updates Project Modules	Task Status
Pending Requests	Jane D. added 2 new members to	
🛞 Threat Tracker	the project Project 3 hours ago Information	12%
👿 Vulnerability Tracker	 Josh M. accepted Final Approval Request 	35% 8% In Progress
▲ Incident Tracker	2 days ago	New
Mitigation Tracker	Jane D. marked Task 5 V2X.OS.4 K Boot Process as Completed	Closed Resolved
+ Register a Product	3 days ago	45%
 Report an Incident 	Tasks Mitigation Vulnerability Assessment	
🗑 Calendar	# Title Priority	
? Help	2 Set up V2X test bench High	Pending Requests
♂ Telp Settings	8 V2X.CAN.5 Normal Medium	Request Date
ær settings	3 V2X.OS.2 Process P Medium 4 V2X.OS.3 Password Medium	No current Pending Requests
	4 V2A.OS.S Fassword Wedium Assessment Approval	

Screen Mockup: iOS Application



Project Technical Specifications

- Point 1
- Point 2
- Point 3
- Etc...

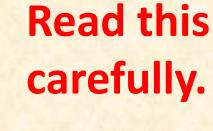
List the technical components of your project.

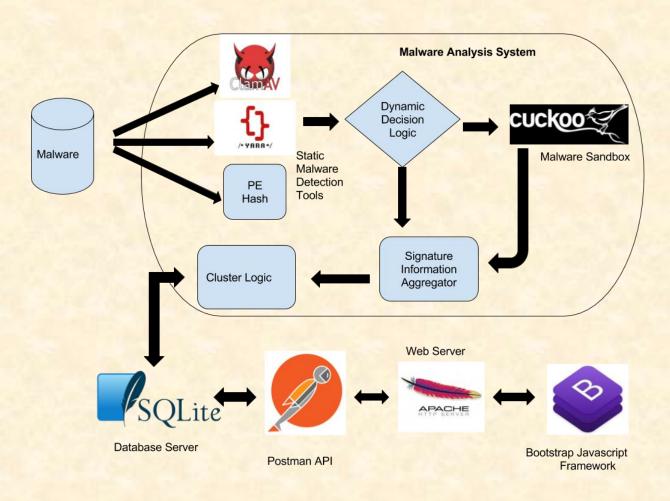
Project System Architecture

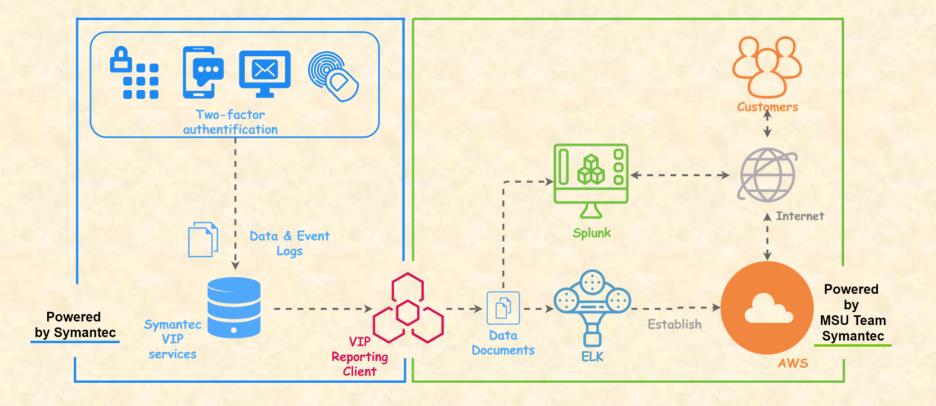
Show a diagram that illustrates the overall architecture of your project including how all of the parts and pieces are connected and interact.

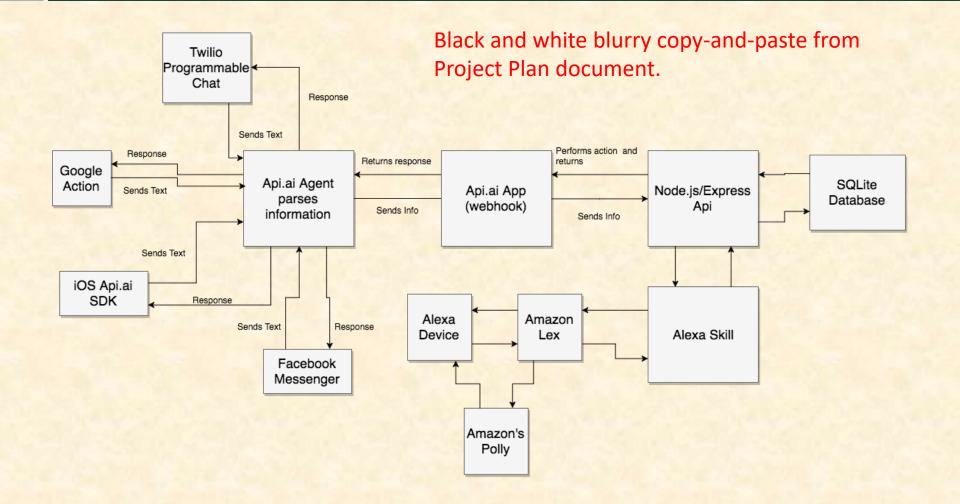
See below for examples and instructions.

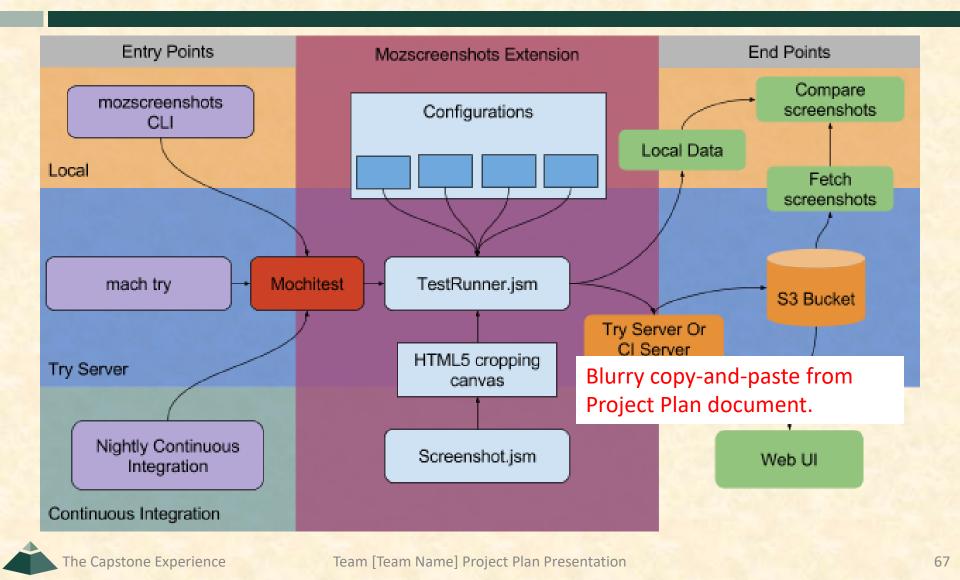
- Draw your system architecture diagram natively in PowerPoint; do not cut-and-paste a diagram from your Project Plan document.
- Create your system architecture diagram in a separate PowerPoint file.
 - Use a white background with a blank slide layout.
 - Use Home > Arrange > Group to group all of the objects in your diagram into one single PowerPoint object that can be copied-and-pasted.
 - Once grouped, save the diagram as a PNG image so that the entire image will scale including text.
- Use Paint.NET to make the background of your diagram transparent.
 - Download and install it from <u>www.getpaint.net</u>.
 - Copy your diagram into Paint.NET.
 - Select Tool > Magic Wand.
 - Click on a background area.
 - Push the Delete button (on your keyboard).
 - The background area should be a checkerboard pattern.
 - (N.B.: Paint.NET was a capstone project at the University of Washington.)
- Copy-and-paste your PNG image into the slide deck System Architecture slide.
- Ensure that your diagram...
 - is readable (size-wise) when projected,
 - has the correct aspect ratio,
 - is scalable, and
 - is centered vertically (between the green bar in the title and the footer) and horizontally (Use Home > Arrange > Align).











Project System Components

Hardware Platforms

- Point 1
- Point 2
- Point 3
- Etc...

List your hardware and software platforms including all of the technologies that your project will use.

- Software Platforms / Technologies
 - Point 1
 - Point 2
 - Point 3
 - Etc...

Project Risks

Do NOT modify the title of this slide in any way. List your project risks on this one slide in bullet points. Delete this textbox.

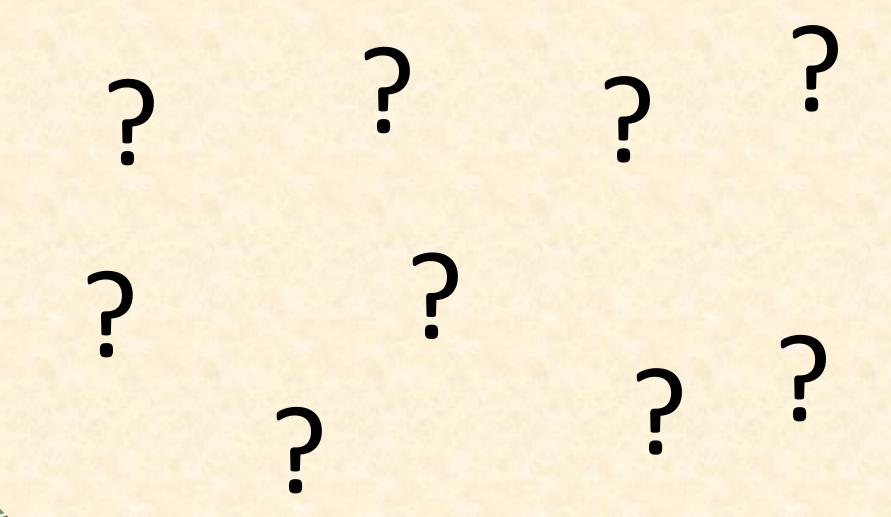
- Risk 1
 - Description
 - Mitigation
- Risk 2
 - Description
 - Mitigation
- Risk 3
 - Description
 - Mitigation
- Risk 4
 - Description
 - Mitigation

Articulate your major risks.

For each risk, describe what the risk is and how you plan on mitigating it.

DO NOT duplicate this slide. All of your risks must fit on this one slide.

Questions?



Team [Team Name] Project Plan Presentation