

MICHIGAN STATE

U N I V E R S I T Y

Beta Presentation

Performance Scorecard Automation

The Capstone Experience

Team United Airlines Airport Operations

Noah Little

Danny Lee

Griffin Klevering

Cynthia Trocinski

Guanzhang Zheng

Department of Computer Science and Engineering
Michigan State University

Spring 2022



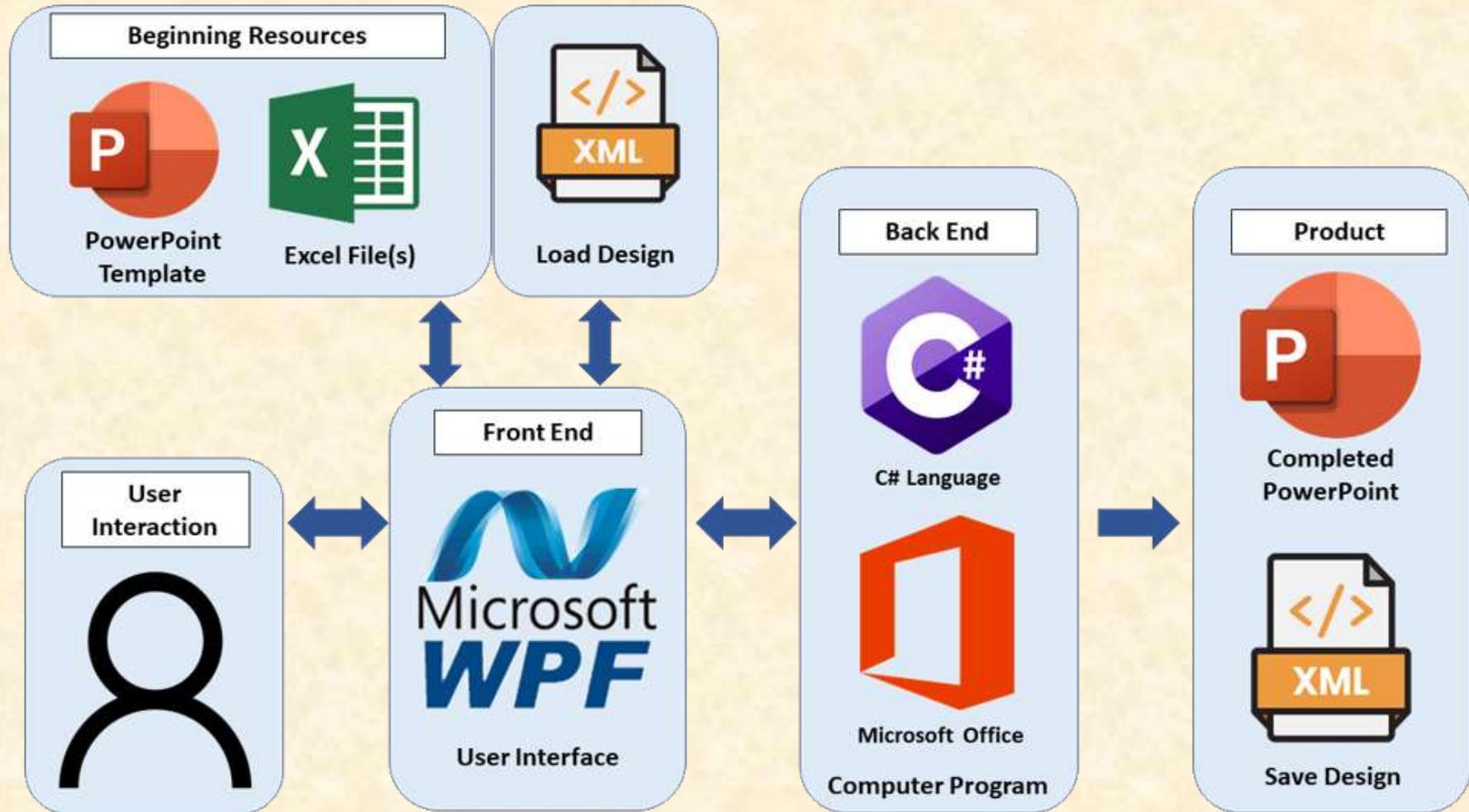
*From Students...
...to Professionals*

Project Overview

- Safety scorecards are time consuming to create and can have human error
- Will automate scorecards to prevent this
- Users enter a data sheet, a PowerPoint template, and create a design to format their scorecard
- System automatically generates a scorecard using the selected data and the user's design
- Allow a user's design to be reused with future data files to generate future scorecards with no effort from the user



System Architecture



Main Menu

United Airlines Scorecard Generator

UNITED 

Excel Spreadsheet Selection

SingleWorkbook_safety_brief_v2_MS.xlsx

PowerPoint Template Selection

202112 Hubs Scorecard_FINAL.pptx

Design Selection

2022_Scorecard_Design.xml

PowerPoint Destination

C:\Users\kleve\source\repos
\PerformanceScorecardAutomation\input



Design Menu

The screenshot shows a window titled "Design" with a table of shapes and their associated content and additional select options. The table has four columns: Shape, PlainText, Content Select, and Additional Select. The rows are labeled Shape 0 through Shape 8. The "Content Select" and "Additional Select" columns contain buttons labeled "Content Select" and "Addition Select" respectively. The "Shape" column has checkboxes, and the "PlainText" column has text input fields.

Shape		PlainText	Content Select	Additional Select
Shape 0	<input checked="" type="checkbox"/>	Overall Rating	Content Select	Addition Select
Shape 1	<input type="checkbox"/>		Content Select	Addition Select
Shape 2	<input checked="" type="checkbox"/>	Damages	Content Select	Addition Select
Shape 3	<input type="checkbox"/>		Content Select	Addition Select
Shape 4	<input type="checkbox"/>		Content Select	Addition Select
Shape 5	<input checked="" type="checkbox"/>	LRS:	Content Select	Addition Select
Shape 6	<input type="checkbox"/>		Content Select	Addition Select
Shape 7	<input type="checkbox"/>		Content Select	Addition Select
Shape 8	<input checked="" type="checkbox"/>	Damages:	Content Select	Addition Select

Back Submit



Content Menu

Content

Shape Content Editor

INFO	Row Header:	Damages
INFO	Column Header:	DEN
INFO	Data Search Range:	A1:K20
INFO	Worksheet:	Damages
INFO	Default Value:	0

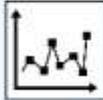
Back Search in Excel Submit



Additional Content Menu

Additional Content

Chart:

Comparison:

Use VLookup Cell Color?

< Icon: Color:

=

Use color if between ranges?

> Icon: Color:

=



What's left to do?

- Stretch Goals
 - Shape click-to-select
 - Shorten worksheet names
 - Progress bar
- Other Tasks
 - Optimize shape insertion
 - Improve Excel/PowerPoint cleanup
 - Clean up code



Questions?

?

?

?

?

?

?

?

?

?

