

**MICHIGAN STATE**  

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**U N I V E R S I T Y**

# Project Plan Presentation

## Global Business Services Process Intelligence

### The Capstone Experience

Team WK Kellogg Co

Adrian Adiwidjaja

Shuwei Chen

Jacob Loudon

Elio Moussa

Darshil Patel

Department of Computer Science and Engineering  
Michigan State University

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

# Project Sponsor Overview

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- WK Kellogg is a multinational food manufacturing company in Battle Creek, Michigan
- It is the number one cereal brand in the USA
- It was founded in 1906 by Will Keith Kellogg



# Project Functional Specifications

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- The companies main data analysis and collection system, SAP MII, is being discontinued
- Research for an alternative data input/collection service to bridge the gap of the replaced system
- Developing a web application that can find a new way to integrate multiple data sources



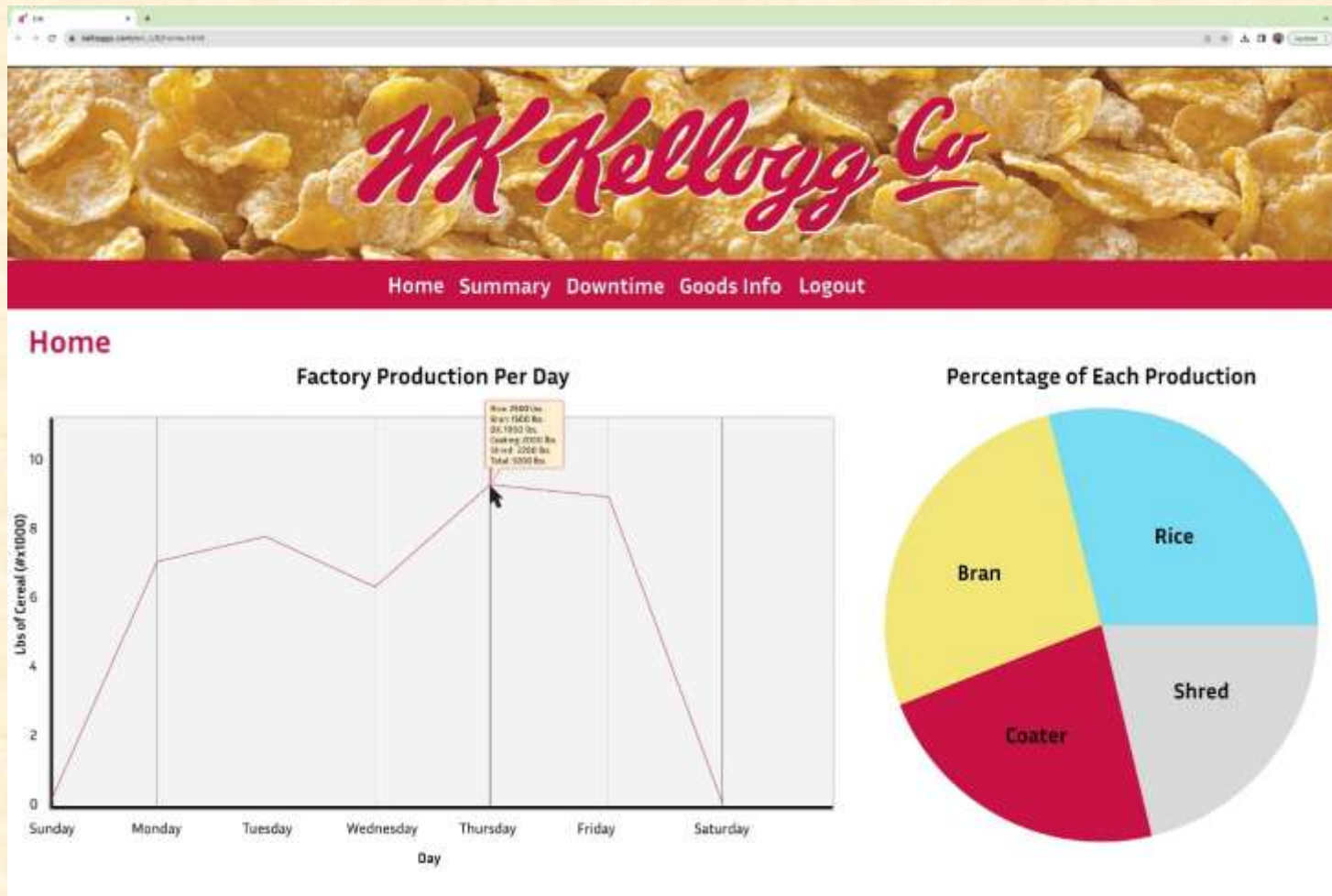
# Project Design Specifications

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- Analyzes PE templates and combines multiple data into one
- After integrating the data the application can present data visualization and analysis
- Create a prototype to replace the integration tool that is getting discontinued




# Screen Mockup: Home Page





# Screen Mockup: Summary Page



Summary Downtime Goods Info Logout

**Processing Order Summary** [Add Processing Information](#) [Change Information](#) [Data Pull For](#) [Transfer to PE](#) [Data Transfer](#) [MII PE Portal](#) [Print Order Summary](#) [Print Labels](#)

Date	Shift	Line	Resource Number	Material Number	Material Description	Name	Order	Shift Txt	UDM
1	9/12/2023	1	RICE	170007732			2295271	A	LB
2	9/12/2023	2	RICE	170007732			2295271	B	LB
3	9/12/2023	3	RICE	170007732			2295271	C	LB
4	9/12/2023	1	DREX	170007732			2295272	A	LB
5	9/12/2023	2	DREX	170007732			2295272	B	LB
6	9/12/2023	3	DREX	170007732			2295272	C	LB
7	9/12/2023	3	BRAN	170007732			2295273	C	LB
8	9/12/2023	2	BRAN	170007732			2295273	A	LB
9	9/12/2023	3	BRAN	170007732			2295273	B	LB
10	9/12/2023	1	BRAN	170007732			2295273	C	LB
11									
12									

**Packaging Order Summary**

Date	Shift	Resource Description	Resource Number	Material Number	Material Description	Name	Order	Shift Txt	Goods Receipts SAP Document Number
1	9/12/2023			170007732	RK NONE 575 LBS		2295271	A	
2	9/12/2023			170007732	AB BUDS CRL BUDS2202X10		2295271	B	
3	9/12/2023			170007732	RK CRL 902X8 RCP		2295271	C	
4	9/12/2023			170007732	RK NONE 575 LBS		2295272	A	
5	9/12/2023			170007732	AB BUDS CRL BUDS2202X10		2295272	B	
6	9/12/2023			170007732	RK CRL 902X8 RCP		2295272	C	
7	9/12/2023			170007732	COMPL WHT BRAN CORR TOTE 350 LBS		2295273	C	
8	9/12/2023			170007732	RK NONE 575 LBS		2295273	A	
9	9/12/2023			170007732	AB BUDS CRL BUDS2202X10		2295273	B	
10	9/12/2023			170007732	AB COMPL WHITE CRL 1802X10		2295273	C	
11									
12									



# Screen Mockup: Downtime Page

The screenshot displays a web application interface for a downtime report. At the top, there is a header with the 'WK Kellogg Co' logo and navigation links: 'Summary', 'Downtime', 'Goods Info', and 'Logout'. Below the header, the 'Downtime' section is active, showing filters for 'Start Date' (9/12/2023), 'End Date' (9/12/2023), and 'Plant' (0690), with a 'Submit' button. The main content is a table with columns for equipment types (Bran, Coater, Rice Cook, Rice Finished, DX, Shred) and sub-columns for 'Scheduled' and 'Unscheduled' downtime across three shifts (1st, 2nd, 3rd) and a 'Total' row.

Shift	Bran		Coater		Rice Cook		Rice Finished		DX		Shred	
	Scheduled	Unscheduled	Scheduled	Unscheduled	Scheduled	Unscheduled	Scheduled	Unscheduled	Scheduled	Unscheduled	Scheduled	Unscheduled
1st	480	0	0	0	131	345	0	24	58	0	0	0
2nd	0	431	0	0	0	393	0	99	0	17	0	0
3rd	0	195	0	0	0	406	0	237	0	0	0	0
<b>Total</b>	<b>480</b>	<b>626</b>	<b>0</b>	<b>0</b>	<b>131</b>	<b>1144</b>	<b>0</b>	<b>360</b>	<b>58</b>	<b>17</b>	<b>0</b>	<b>0</b>



# Screen Mockup: Goods Page

The screen mockup displays the 'Goods Page' for WK Kellogg Co. The page is divided into several sections:

- Header:** Features the WK Kellogg Co logo in red script over a background of cornflakes. Below the logo is a navigation bar with links: Summary, Downtime, Goods info, and Logout.
- Goods Receipts:** This section includes a search filter for 'Date' (set to 7/12/21) and 'Type'. Below the filters is a table with the following columns: Date, Shift, Line, Resource Number, Material Number, Material Description, Name, Order, Shift Txt, and UOM. The table body is currently empty.
- Goods Issues:** This section includes a search filter for 'Date' (set to 7/12/21) and 'Type'. Below the filters is a table with the following columns: Date, Shift, Resource Description, Resource Number, Material Number, Material Description, Name, Order, Shift Txt, and Goods Receipts Shift Document Number. The table body is currently empty.





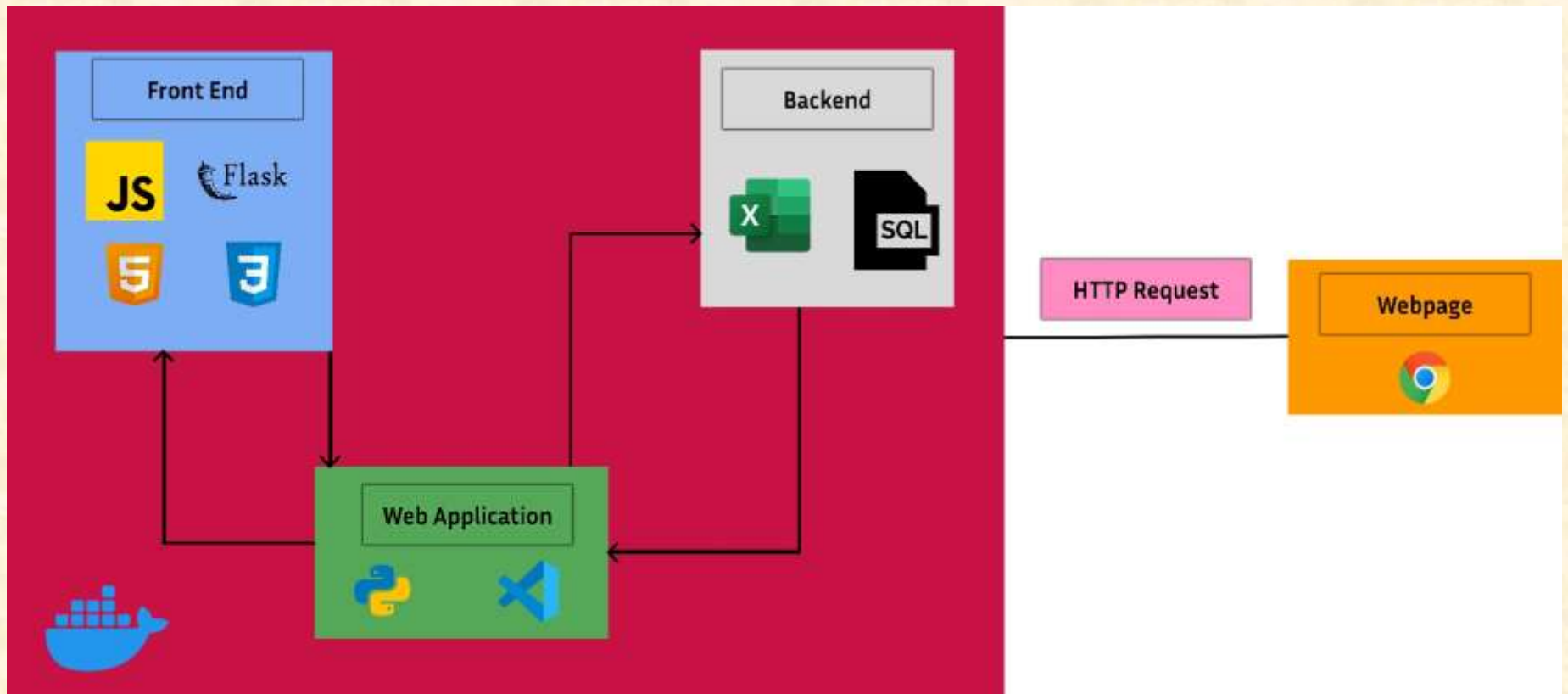
# Project Technical Specifications

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- Front End: Flask, JavaScript, HTML, CSS
- Back End: Sql, Oracle Database, Excel
- Python
- Docker



# Project System Architecture



# Project System Components

- Software Platforms / Technologies
  - Python
  - JavaScript
  - HTML
  - CSS
  - SQL
  - Flask



# Project Risks

- Implement the proper project execution calculations
  - Rigorous testing and validation against the Excel PE templates will be conducted, along with implementing robust data integrity checks and version control for real-time multi-user collaboration.
- Data Manipulation from SAP ECC to the new Integration tool
  - We will maintain close contact with the integration team, coordinating tests and reviews to ensure seamless data transfer and alignment between SAP ECC and the new integration tool.
- Accurately collecting and calculating data in order to visualize data correctly
  - We will implement data validation protocols and algorithmic checks, alongside periodic manual audits, to ensure the accuracy and reliability of both numerical and visualized data.



# Questions?

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