

**MICHIGAN STATE**  

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**UNIVERSITY**

# Project Plan Presentation

## Customer Insights Dashboard

### The Capstone Experience

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

# Functional Specifications

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- Display ratings for households on how good of an "opportunity" they are.
- Solves the problem that dealerships only have useful analysis of their competitors rather than of their customers.
- Allows for a different view of the opportunity as the sale process moves forward.



# Design Specifications

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- Web app that displays leads/opportunities in a table.
- Each lead has an assigned rating (Good, Better, Best).
- Information displayed changes over time with the introduction of new data.



# Screen Mockup: Leads

Dealer Digital Solutions x +

tmsusaconnect.com/C4LeadView/#/OpportunityDashboard

LEADVIEW Customer Insights Dashboard ? John Smith

Leads

ID	DATE	STATUS	RATING CHANGE	RATING
77392191	1/20/2022	OPEN	↑ +9.17%	Best
77398282	1/20/2022	OPEN	↑ +0.76%	Best
77421305	1/21/2022	OPEN	↓ -4.68%	Better
77421608	2/1/2022	NEW	0%	Better
77427645	1/20/2022	OPEN	↓ -2.03%	Better
77390873	1/16/2022	OPEN	↑ +5.25%	Better
77317836	1/8/2022	OPEN	↑ +2.35%	Good
77399746	2/1/2022	NEW	0%	Good
77334851	1/17/2022	OPEN	↑ +2.02%	Good
77459832	1/16/2022	OPEN	↓ -3.01%	Good
77393862	1/19/2022	OPEN	↑ +4.89%	Good



# Screen Mockup: Lead Page 1

Dealer Digital Solutions x +

tmsusaconnect.com/C4LeadView/#/OpportunityDashboard

LEADVIEW Customer Insights Dashboard ? John Smith

## Sorphis Opportunity

### Xayd Sorphis

1476 Shannon Circle, Troy, MI 48085

1-521-432-9716

xay.sor@example.org

#### Why the Best?

<h4>Vehicle in Stock</h4> <p>You have the vehicle Xayd would like to purchase in stock.</p>	<h4>Previously Served</h4> <p>Xayd previously worked with you to purchase a car.</p>	<h4>Most Contacted</h4> <p>You are the dealer Xayd has contacted the most.</p>
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# Screen Mockup: Lead Page 2

The screenshot shows a web browser window with the following details:

- Browser tab: Dealer Digital Solutions
- Address bar: tmsusaconnect.com/C4LeadView/#/OpportunityDashboard
- Page Header: LEADVIEW | Customer Insights Dashboard | John Smith
- Section: Sorphis Opportunity
- Lead ID: 77392191
- Lead Details:
  - ID: 77392191
  - Date: 1/20/2022
  - Status: OPEN
  - Rating Change: +9.17% ↑
  - Rating: Best ■
- Model Details:
  - Model: 1
  - Year: 2022
  - Brand: UM
  - Model Trim: Off-Road Premium 4.0L V6
- Related Leads:
  - Lead 77365419
  - Lead 77392985



# Screen Mockup: Menu Bar

The screenshot displays a web application interface. At the top, the browser address bar shows the URL `tmsusaconnect.com/C4LeadView/#/OpportunityDashboard`. The application header includes a hamburger menu icon, the text "LEADVIEW", the title "Customer Insights Dashboard", and a user profile icon for "John Smith".

A dark sidebar on the left contains the following menu items:

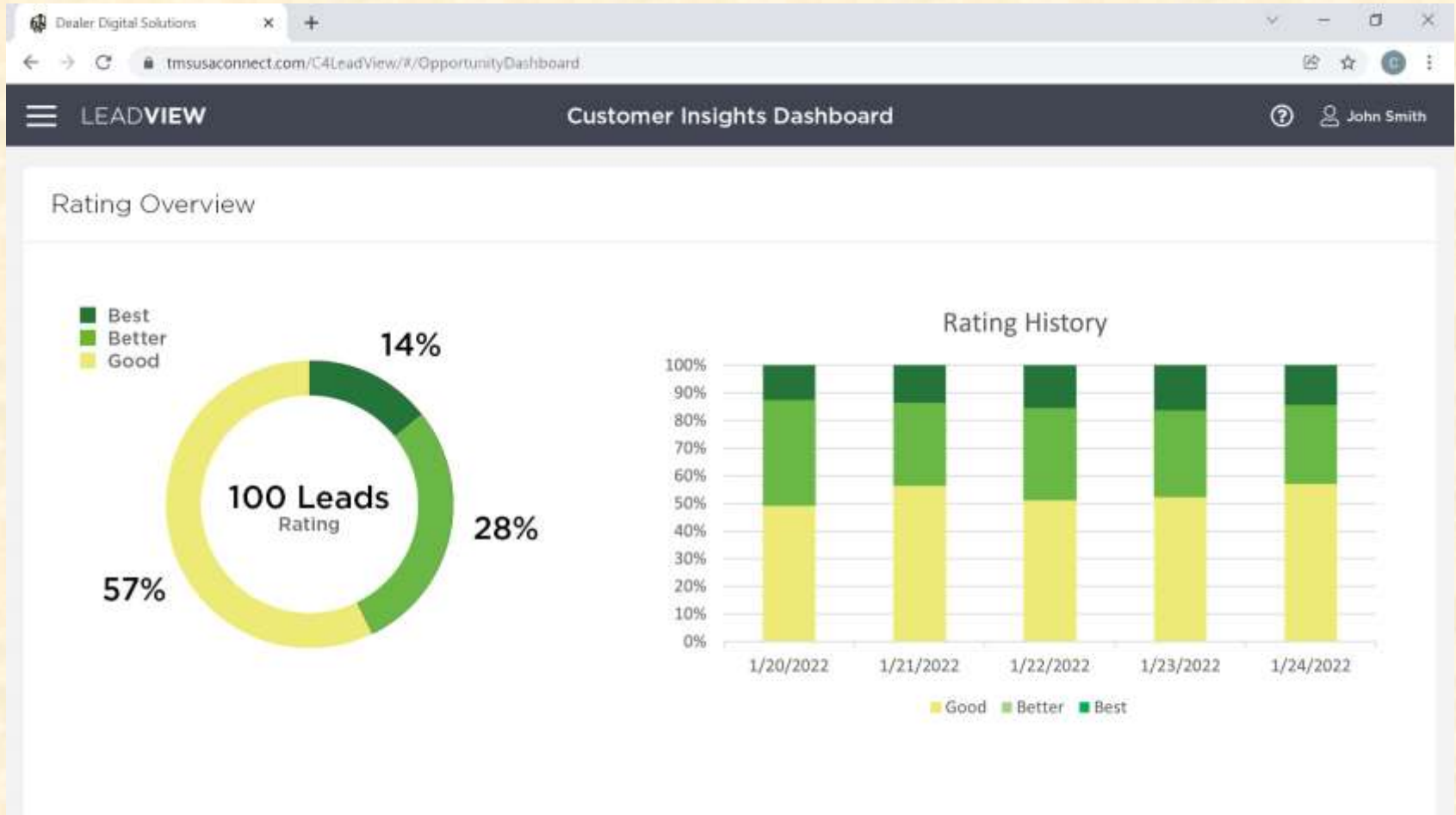
- Leads
- Rating Overview
- Closed Leads

The main content area features a table titled "Leads" with the following columns: ID, DATE, STATUS, RATING CHANGE, and RATING. The table contains 12 rows of data, with the 4th and 9th rows highlighted by a blue vertical bar on the left.

ID	DATE	STATUS	RATING CHANGE	RATING
77392191	1/20/2022	OPEN	↑ +9.17%	Best
77398282	1/20/2022	OPEN	↑ +0.76%	Best
77421305	1/21/2022	OPEN	↓ -4.68%	Better
77421608	2/1/2022	NEW	0%	Better
77427645	1/20/2022	OPEN	↓ -2.03%	Better
77390873	1/16/2022	OPEN	↑ +5.25%	Better
77317836	1/8/2022	OPEN	↑ +2.35%	Good
77399746	2/1/2022	NEW	0%	Good
77334851	1/17/2022	OPEN	↑ +2.02%	Good
77459832	1/16/2022	OPEN	↓ -3.01%	Good
77393862	1/19/2022	OPEN	↑ +4.89%	Good



# Screen Mockup: Rating Overview





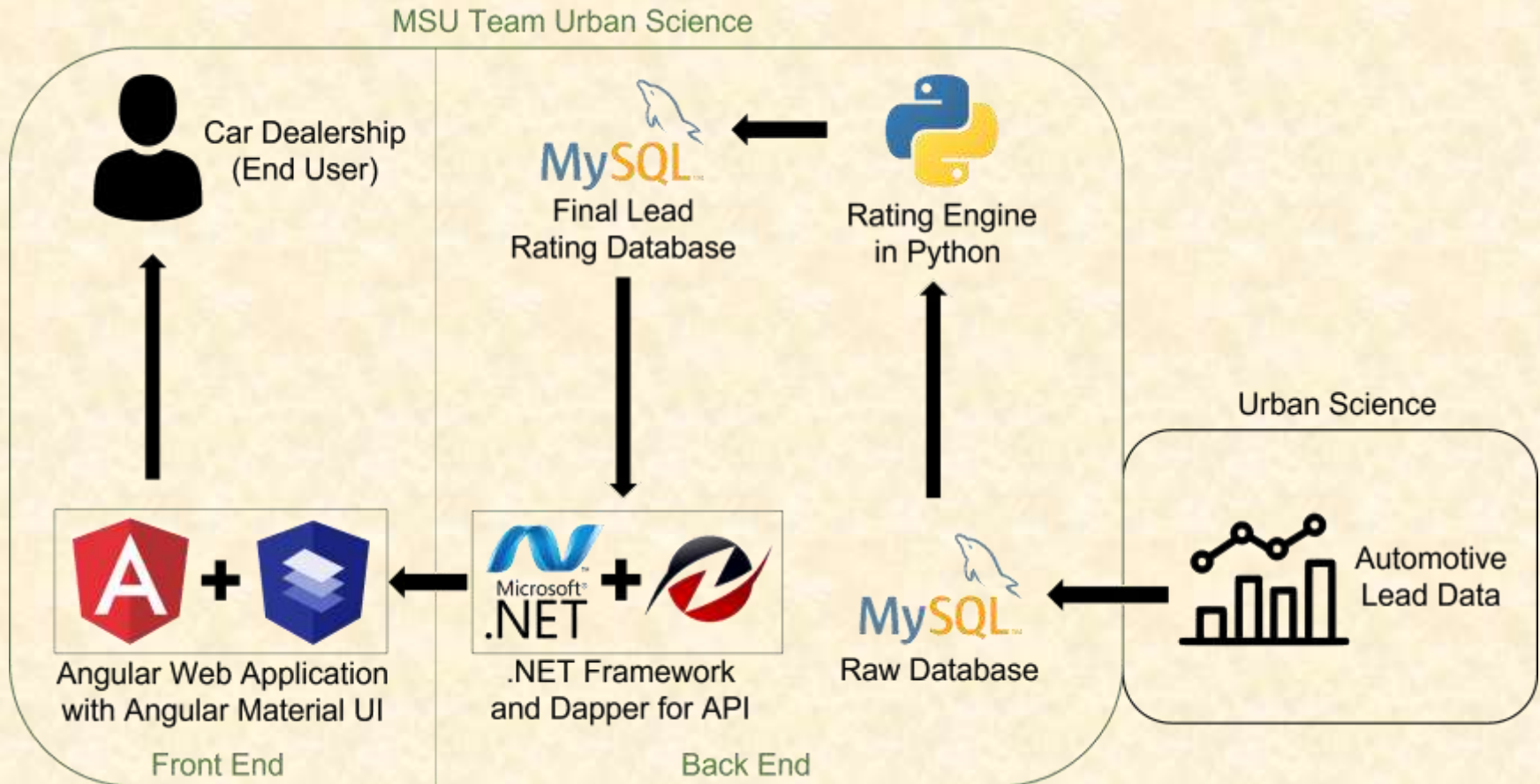
# Technical Specifications

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- Angular Web Application
- API built in .NET Framework, C#, Dapper
- MySQL Database for Urban Science Data
- MySQL Database for our processed Data
- Rating engine written in Python using NumPy, Scikit-Learn, and Pandas



# System Architecture



# System Components

- Hardware Platforms
  - Windows 10 Machines
  - MSU Hosted Server through phpMyAdmin
- Software Platforms / Technologies
  - Visual Studio 2019 and Visual Studio Code
  - Python, NumPy, Scikit-Learn, Pandas
  - .NET Framework, C#, Dapper
  - MySQL
  - Angular, Angular Material



# Risks

- Risk 1
  - Unsure which factors determine the quality of a lead.
  - We will perform a statistical analysis on sample lead data to observe which variables most often occur with a sale.
- Risk 2
  - Interfacing python back-end to angular front-end.
  - We will have to have clear and organized data structures so that we do not have difficulty with communication.
- Risk 3
  - Ensuring the system is scalable and can adapt to new data inputs.
  - We will need to simulate the passage of time by processing specific sections of data, one date at a time.



# Questions?

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