Project Plan Presentation
Customer Insights Dashboard

The Capstone Experience

Team Urban Science

Cody Maier
Allen Lin
Jacob Frank
Jeff Valentic
Md Samad
Claire Cherng

Department of Computer Science and Engineering
Michigan State University
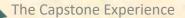
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Functional Specifications

- 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

- 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

Screen Mockup: Lead Page 1

Screen Mockup: Lead Page 2

Screen Mockup: Menu Bar

Screen Mockup: Rating Overview

Technical Specifications

- Angular Web Application

- API built in .NET Framework, C#, Dapper

- MySQL Database for Urban Science Data

- MySQL Database for our processed Data

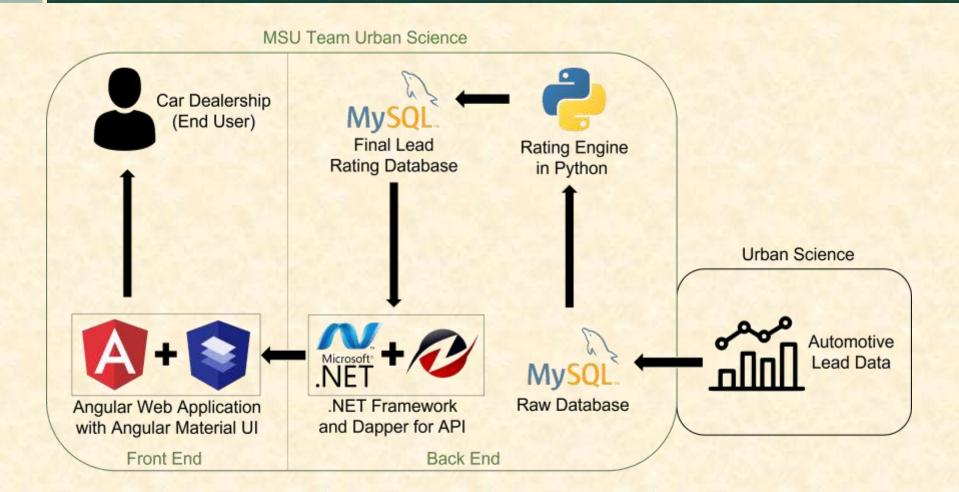- Rating engine written in Python using NumPy, Scikit-Learn, and Pandas

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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