Project Plan Presentation
Feedback Prompt for Ratings in Google Play Store
The Capstone Experience

Team Microsoft
Justin Hollinshead
Jordan Hybki
Karn Jongnarangsinsin
Moeez Khan

Department of Computer Science and Engineering
Michigan State University
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Functional Specifications

Promote User Feedback

▪ Prompt users for their feedback within the Android version of Microsoft’s Intune Company Portal application

• Improve Feedback Data Analysis
  ▪ Supply our client with enhanced review sentiment analysis for both Intune and its main competitors

• Automate Analysis Report Delivery
  ▪ Automatically send feedback analysis reports to developers through an interface
Design Specifications

• In-App Review Prompt
  ▪ Upon a new device enrollment, users will automatically be prompted to leave a rating & review inside the application

• Feedback Analysis Reports
  ▪ Easily understandable rating & sentiment analysis showcased visually with charts & graphs

• Microsoft Teams Bot
  ▪ Automated bot that outputs reports directly to the client via Microsoft Teams & email
In-App Review Prompt

Sample Application

Intune Company Portal
Feedback Analysis Report 1
Feedback Analysis Report 2
Feedback Analysis Report Email
Technical Specifications

• In App Review:
  ▪ User is prompted in the Microsoft Intune app to leave a review of the Android Company Portal.
  ▪ Display only once per user.
  ▪ Can be switched on/off.

• Google Play Store Analysis:
  ▪ Collate sentiment and reviews over time analysis.
  ▪ Compare against competitors (Workspace ONE and Mobile@Work).
  ▪ Sent to end users via Microsoft Teams Bot and Email.
System Architecture

- Review Sources + API
- Azure Hosted SQL Database
- Machine Learning
- Keras
- Teams Bot Interface
System Components

• Software Platforms / Technologies
  ▪ Azure Cloud Services. (Pipeline, Repos, SQL Database, Machine Learning)
  ▪ Tensorflow/Keras.
  ▪ Node.js. (Web Scraping and SQL interfacing)
  ▪ Google Play Store, Facebook, Twitter, Reddit, GitHub, Stack Overflow API.
  ▪ Kotlin/Android SDK.
  ▪ Microsoft Bot Framework.
Risks

• Representative Training Data
  ▪ Natural Language Processing requires suitable data to create a model that can make accurate predictions, data that poorly represents testing data can lead to inaccurate models that are not helpful
  ▪ Comprehensive acquisition of data early on, adjusting combinations of training data to optimize model accuracy

• Passing Data Through Systems
  ▪ Multiple systems using data in their own ways (scraping, storing, analyzing, etc.), data will need to be passed seamlessly from one system to the next
  ▪ Early discussion, research, and implementation of systems communications to determine what will or won’t require workarounds or fixes

• Source Code Access Could not be Granted
  ▪ Initial plan from Microsoft was to have us access actual app code and work with it directly as the main focus for this project. This fell through and makes our early planning obsolete since features would require listeners only present in source code.
  ▪ Extensive discussion with client to instead shift focus to sentiment analyses and automated delivery of this data, keeping in-app review prompt through prototypes that developers can then reference for actual implementation
Questions?