Project Plan Presentation
Application Lifecycle Framework

The Capstone Experience

Team GM 2

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Project Sponsor Overview

• Largest automotive company in the United States, and largest in the world until 2008
• Currently makes Buick, Cadillac, Chevrolet, and GMC cars
• Between 2020 and 2025, GM is expected to invest $35 billion in EV and AV research and production
• Based in Detroit, MI
Project Functional Specifications

• Create application that tracks, automates, validates, and orchestrates application distribution process to GM devices

• Company previously used Sharepoint, but moving to Sharepoint Cloud which breaks current system

• Sends automated emails to whoever is responsible for the next step in the process

• Handles deployment to assorted devices (desktop, laptop, smartphone, tablet, etc)
Project Design Specifications

• Website takes in information about application to be distributed
• Request is processed and assigned to reviewer, email sent to appropriate parties
• Users manually review at whatever step the process is at, and checks off when they are done
• Email sent to next person in review process, and process is repeated until all steps are done
• Application distributor can check status of review process at any time
Screen Mockup: Client Request Form

- ASMS Number: 100834
- Request Overview:

**ASMS Owning Organization**: Enterprise Technology Services
- **Business Function Group**: Global Development Services
- **Application Owner**: Matthew Sprague
- **Application Owner Operation**: Edward Muller
Screen Mockup: View User Requests
Screen Mockup: In-Depth Request View

Git Progress:

- CSRF Request Submitted
- Request Processed and Assigned
- Request Engineered
- Request Implemented

Request Overview
We would like Git for version control during software development.

ASMS Owning Organization
Enterprise Technology Services

Application Owner
Matthew Sprague

Business Function Group
Global Development Services

ASMS Number
56820
Screen Mockup: View Client Requests
Project Technical Specifications

• Angular to create front end of website
• Uses Spring Boot to communicate between back end server and website
• Maria DB server for storing information about applications and employees
• SMTP server to send emails to whoever is handling next step in distribution process
Project System Architecture
Project System Components

- **Hardware Platforms**
  - Rack Server in Lab
    - Ubuntu
      - Tomcat Server

- **Software Platforms / Technologies**
  - Angular
  - Spring Boot
  - Maria DB
  - Google SMTP Server
Project Risks

• Risk 1
  ▪ Handling user permissions
  ▪ As of right now, engineers can approve their own requests/stages of the request, so each type of user must have specific permissions

• Risk 2
  ▪ Handling of notifications of process updates for users
  ▪ Many emails will have to be sent for each stage of the deployment process, so minimizing emails, only sending emails for certain parts, or implementing a priority system may be optimal

• Risk 3
  ▪ Making the UI usable by non-technical users
  ▪ Not everyone using application will be a technical user, so layout of website is being simplified

• Risk 4
  ▪ Finding an effective method to implement request priorities
  ▪ Most requests are taken care of in a first in, first out method, but admin can change priorities of certain requests, so we need to weight each request
Questions?