Project Plan
AR Model Management Platform
The Capstone Experience
Team Dow
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Functional Specifications

- Augmented Reality iOS and Android Application
- Platform Allowing Marketing Professionals to View Dow Product Models
- Models are Managed and Updated from Central Storage
Design Specifications

- View Dow Models in AR
- View All Available Models in the Cloud
- Configure the Model’s Color and Scale
- Rotate and Highlight Models
- Show User Info and User Settings
- Tutorial Screen
Screen Mockup: Model Selection
Screen Mockup: Model Configuration
Screen Mockup: AR View
Screen Mockup: User Info

User Name: Harrison Sanders

☐ Enable Button Controls

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Technical Specifications

• Azure Active Directory
• SharePoint Web API
• Unity AssetBundles
• ARCore (iOS and Android) and ARKit (iOS)
• OAuth 2.0 Token Interceptor
System Architecture

- Dow Admins
  - Unity Interface
    - ARCore
      - iOS
    - ARKit
      - Android
  - Asset Bundle
    - SharePoint Online
    - SharePoint Web API
    - Unity
    - AR Model Management Platform
  - iOS App
  - Android App
  - Dow Marketing Professionals
System Components

• Hardware Platforms
  ▪ iOS Devices
  ▪ Android Devices

• Software Platforms / Technologies
  ▪ iOS
  ▪ Android
  ▪ Unity
  ▪ Xcode
  ▪ C #
Risks

• Implementation of ARCore and ARKit
  ▪ Using ARCore with ARKit and allowing for user interaction with 3D objects is a challenge
  ▪ Mitigate by having each team member create an ARCore/ARKit app

• Storing 3D models on SharePoint
  ▪ SharePoint needs to store large 3D models
  ▪ Mitigate by creating a test app that pulls a 3D model from SharePoint

• Scalability on SharePoint
  ▪ The app will be used by entirety of Dow Sales and Marketing
  ▪ Mitigate by stress testing on SharePoint

• Safety of handling user credentials
  ▪ Hard to keep user login info safe when there are many different access points
  ▪ Mitigate by working with Dow on safety best practices with Azure AD
Questions?