MICHIGAN STATE
U N I V E R S I T Y

Project Plan
Tech Ops Training
Content Management System

The Capstone Experience

Team United Airlines Training

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From Students…
…to Professionals

Functional Specifications

- Web application used to organize and supply media content for training purposes

- Supplies content in a way which is more intuitive than United's current "Quick Tips" site

- Dynamically recommends content to users based on stored data and analytics

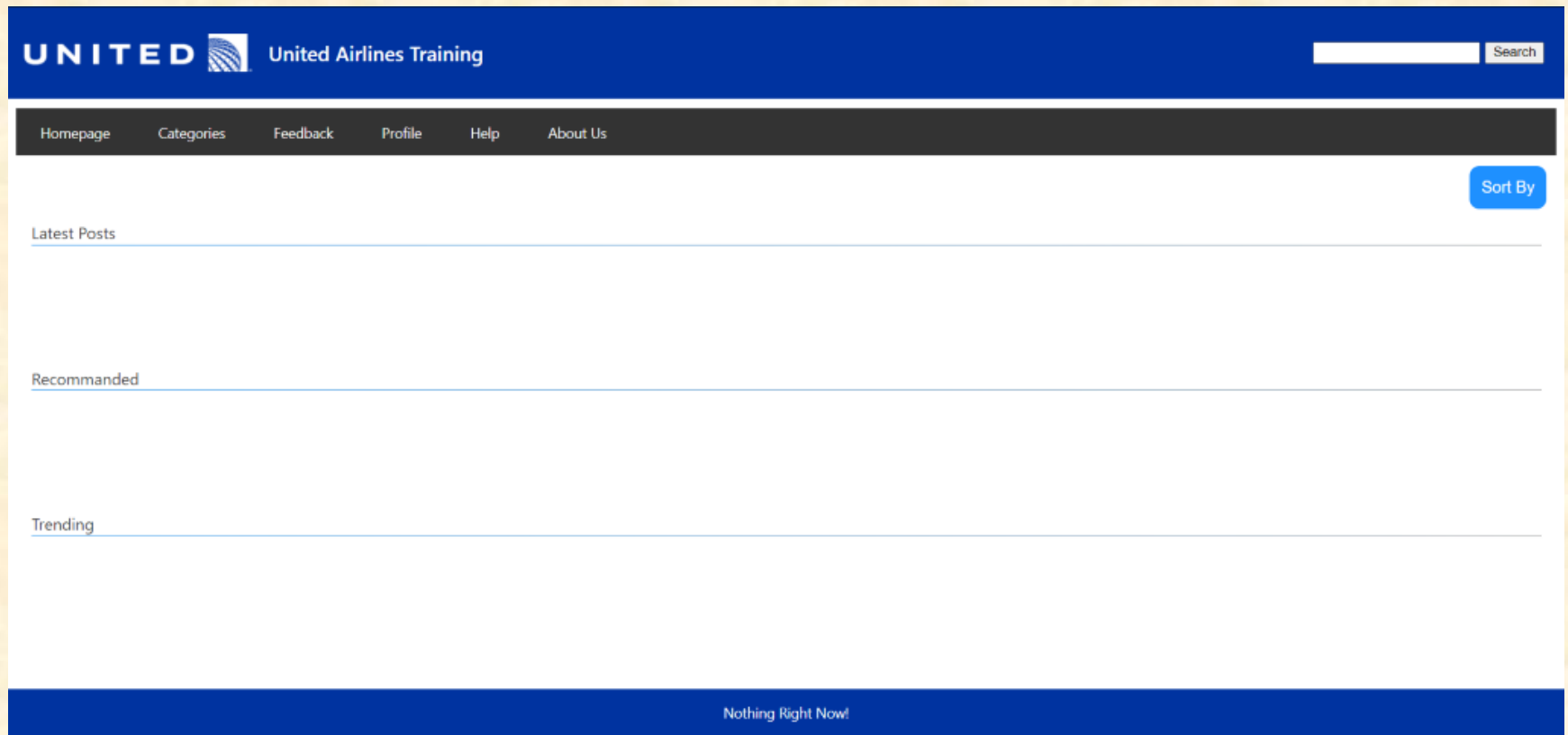# Design Specifications

- **Major Features:**
  - Provide learning materials to end users
  - Restrict certain media operations to users with specific roles
    - » E.x. guests can only view content whereas admins can edit and create content
  - Allow users to provide feedback to the site's administrators as well as on specific media content
  - Keep records of user and media history for analytical purposes
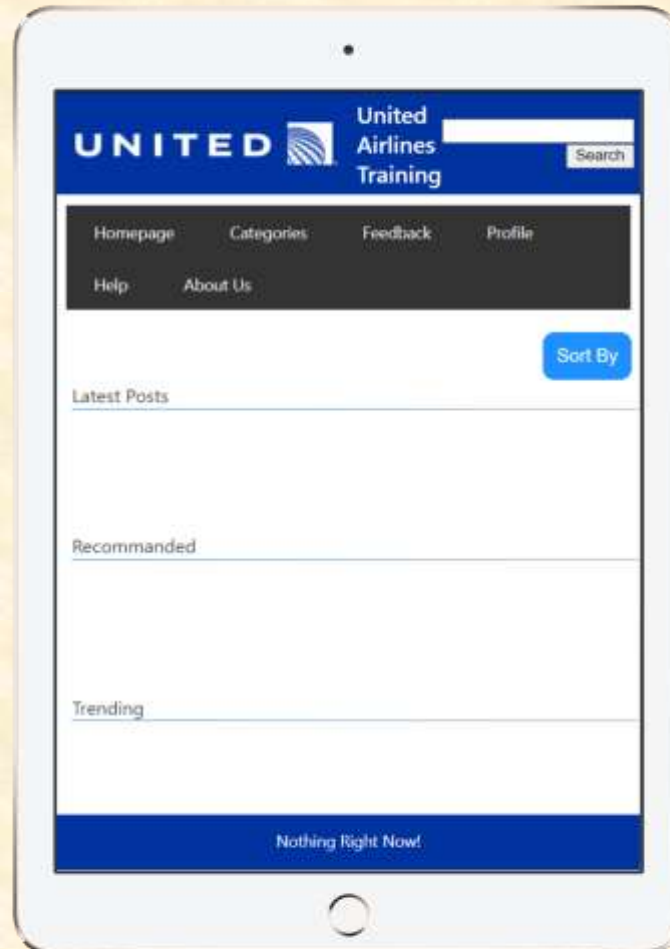
- **Design Summary:**
  - Users will enter the site from United's existing employee webpage. From there, they will be shown content which is relevant to them or they can search for specific content.
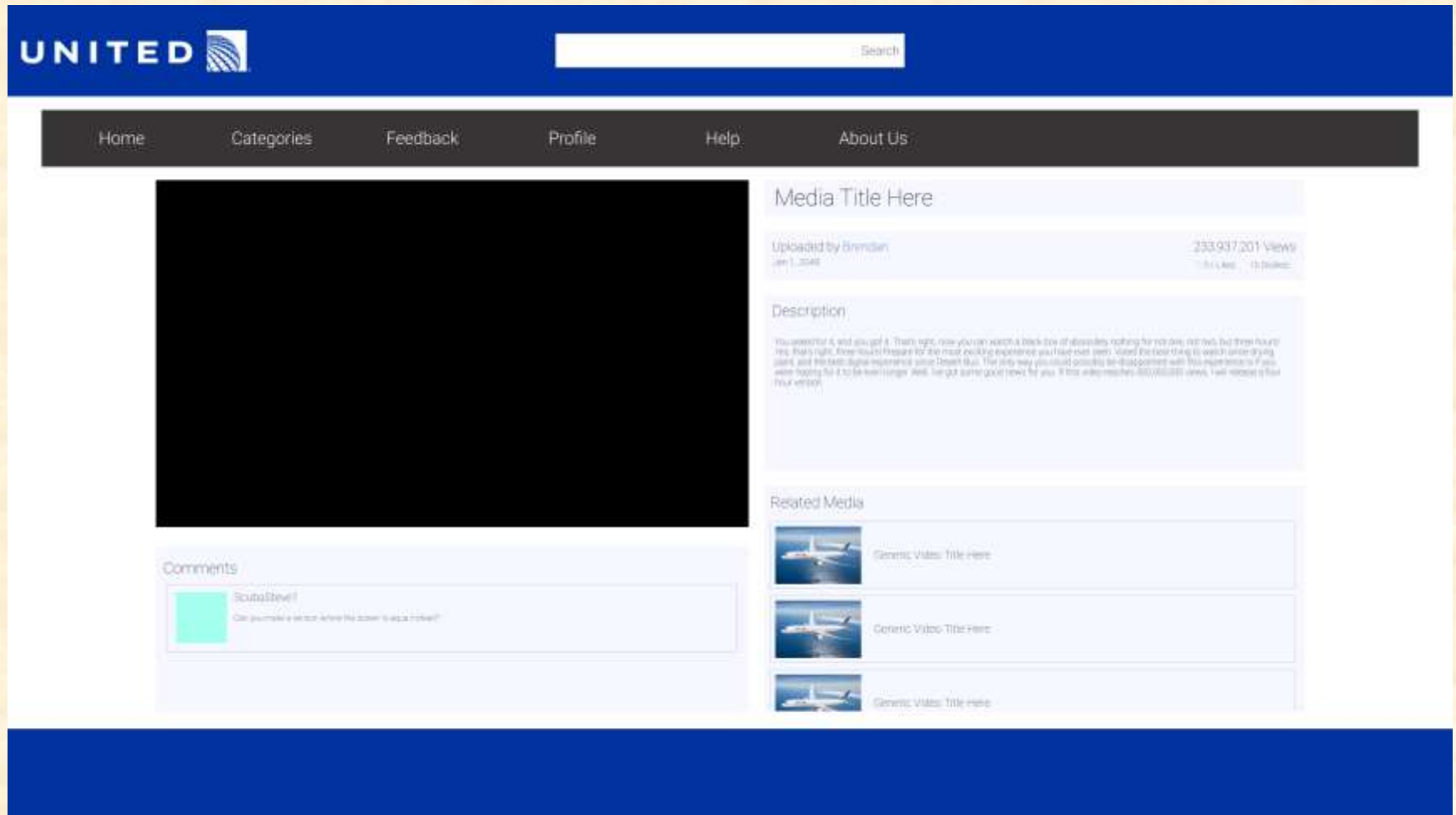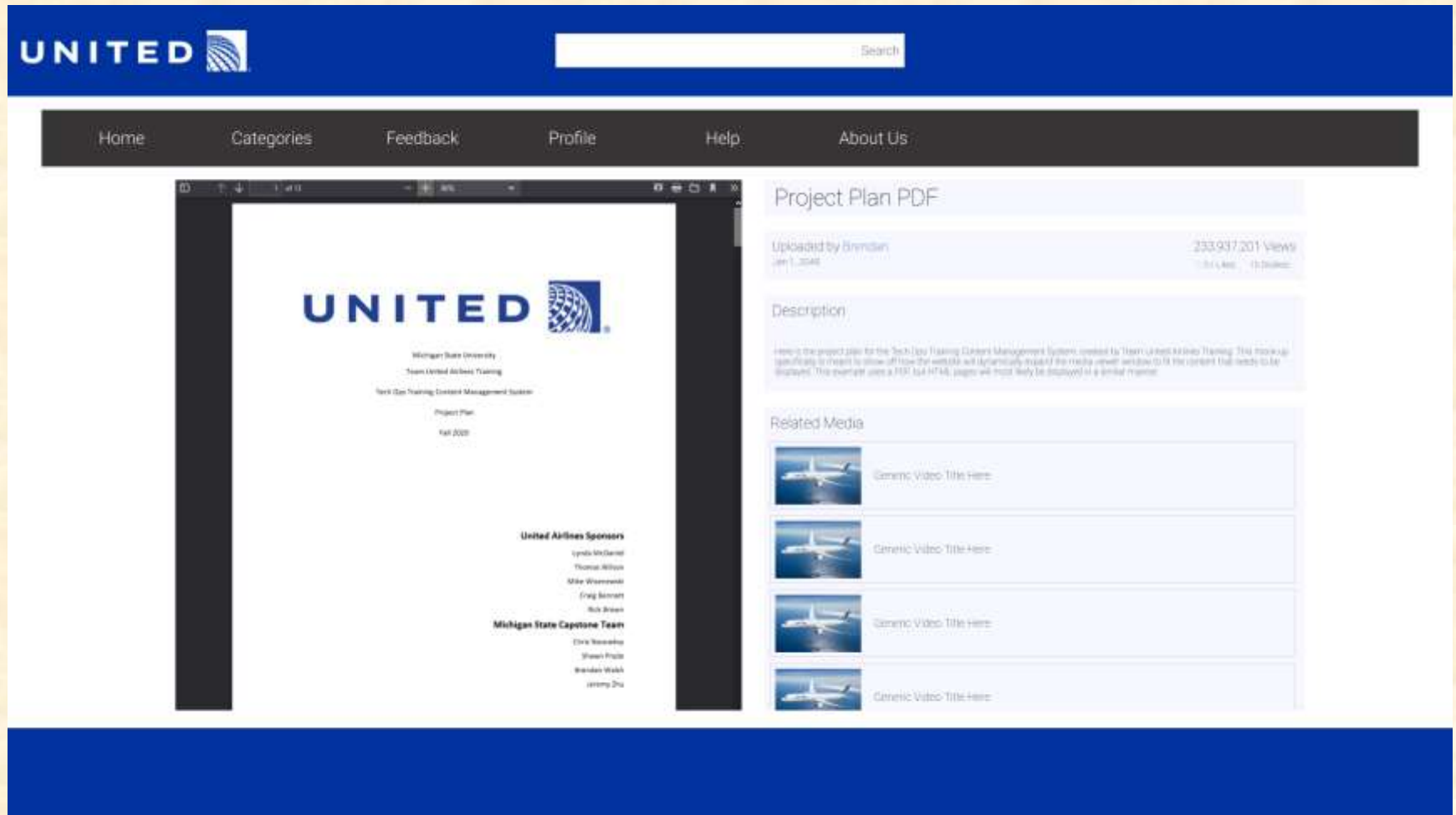
Screen Mockup: Homepage

Screen Mockup: Homepage - Mobile

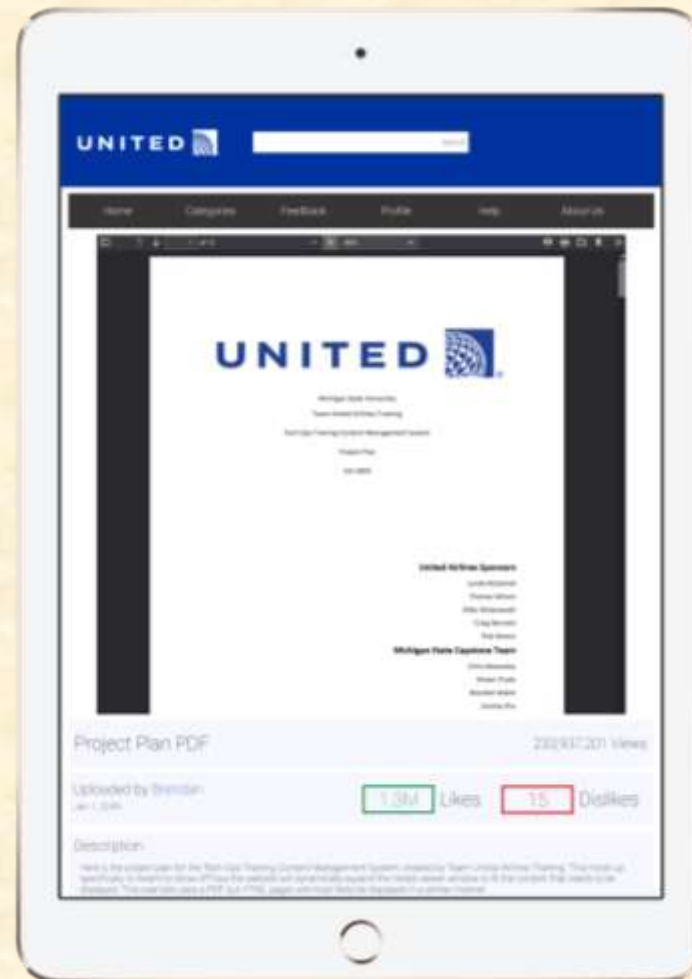# Screen Mockup: Media Viewer Page – Desktop

Screen Mockup: Media Viewer Page – Desktop Media Size Variation

Screen Mockup: Media Viewer Page – Mobile

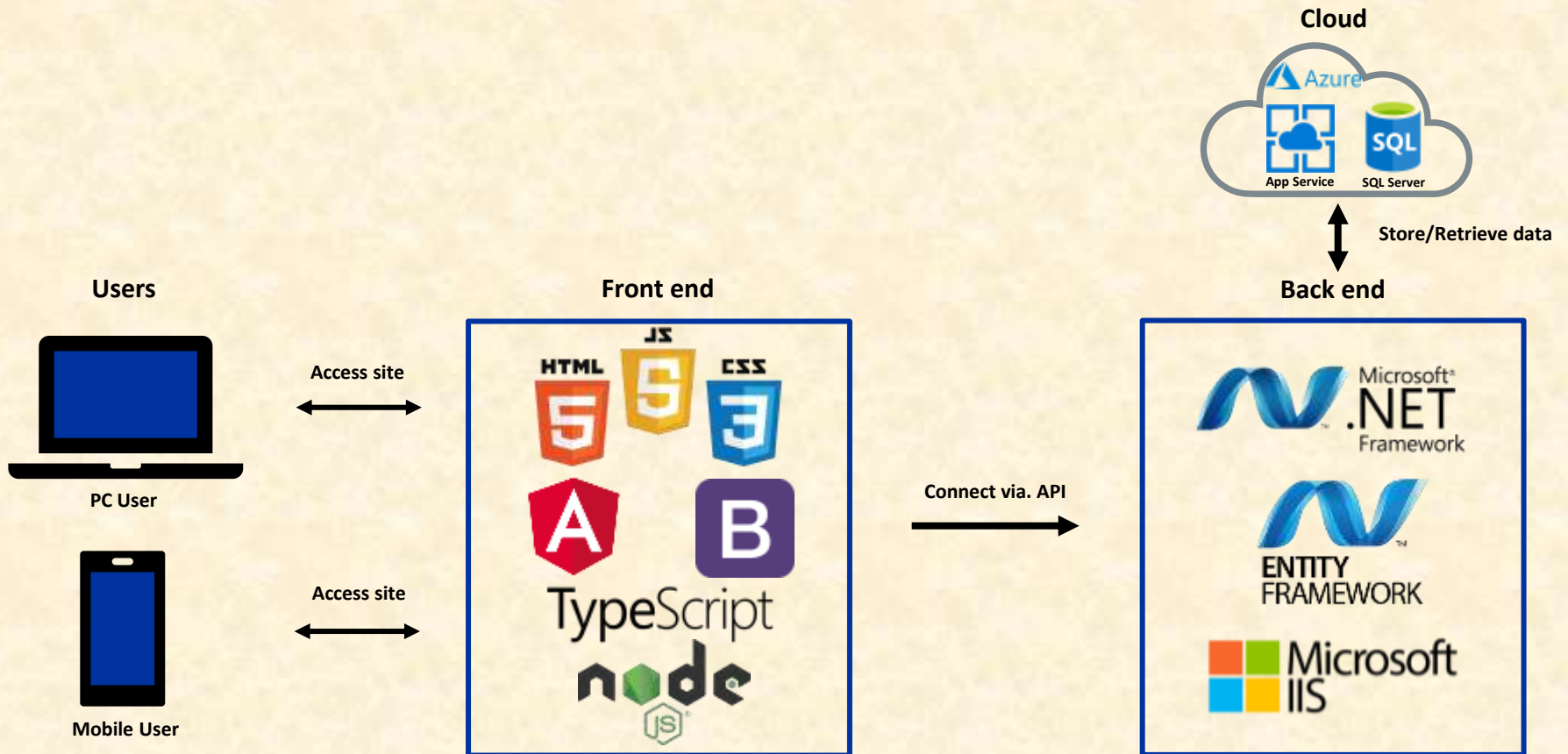# Screen Mockup: Media Viewer Page – Mobile Media Size Variation

Technical Specifications

- Users authenticated through Oracle Access Manager to access website

- Front end Angular framework serves media content and user activity tracking analytics

- Back end ASP.NET framework houses controllers, models, server request handling, and analytics report generator

- Azure hosts SQL Server for storing records in database

System Architecture

Cloud

Users

Front end

Back end

Access site

Access site

PC User

Mobile User

Connect via. API

Store/Retrieve data

App Service   SQL Server

System Components

- Software Platforms / Technologies
  - Microsoft IIS Server
  - Microsoft ASP.NET Framework
  - Microsoft Azure
  - Microsoft Entity Framework
  - Microsoft SQL Server
  - Angular
  - NodeJS
  - HTML5 Video Element
  - PDFjs

Risks

- Un-familiarity with technologies and frameworks
  - Lack of experience with Angular / IIS / ASP.NET framework
  - Create "Hello World" Demos for each technology
- .NET Core web server is not able to access IIS virtual directories
  - Static content on server no longer can be served at current static file directory
  - Reconfigure where the static content is served from
- Integrating technologies with each other
  - Once we have our demos in place, we will need to figure out how to connect their functionalities
  - Start connecting technologies within our repository, addressing and resolving conflicts early

Questions?

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