Project Plan
TechSmith Director

The Capstone Experience

Team TechSmith

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Functional Specifications

- Professional video editing is a daunting task

- Eliminate need for software training through voice commands

- Provide seamless, professional video editing for non-media professionals

- Cloud hosted application – accessible via web browser
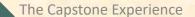
Design Specifications

- Voice commands producing results in real time

- User login and project management page

- Speech-to-text interface

- Draggable asset options in video editor
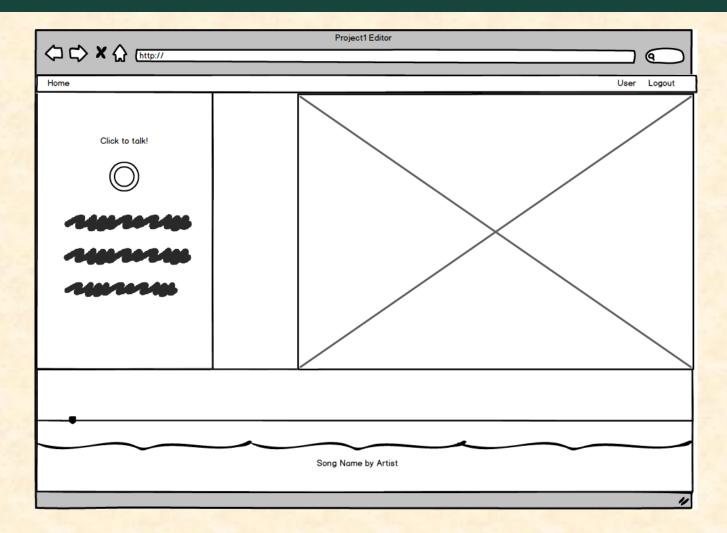
- Video timeline

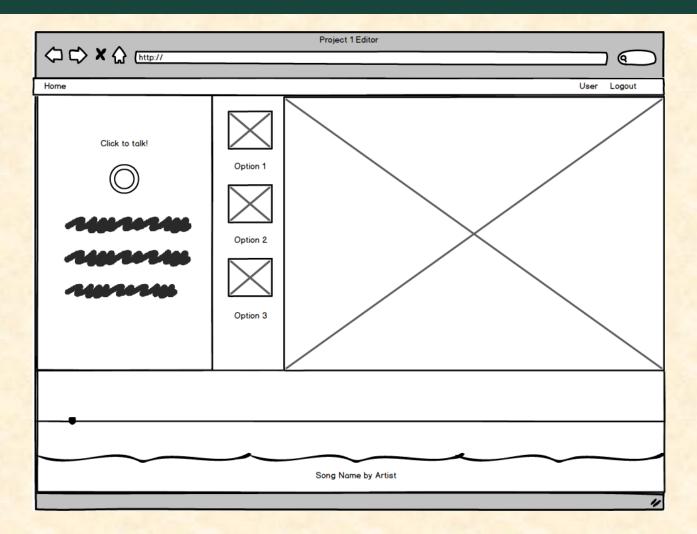# Screen Mockup: Login

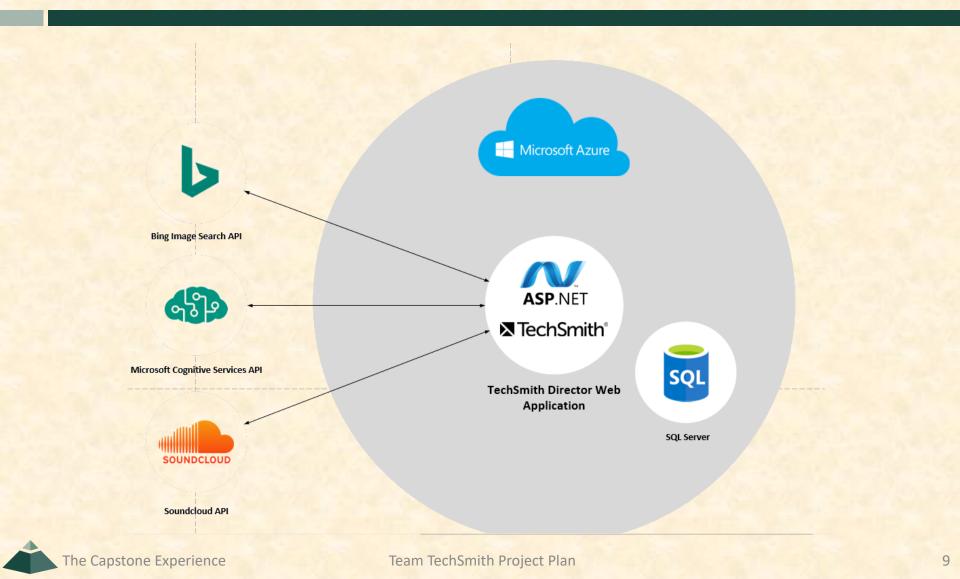# Screen Mockup: Project Management

Screen Mockup: Project Editor

Screen Mockup: Video Workspace

Technical Specifications

- Microsoft Azure for Hosting
- Soundcloud API for Audio Assets
- Bing Image Search API for Image Assets
- Microsoft Cognitive Services API for Natural Language Processing
- MySQL Database
- HTML5, CSS3, JavaScript
- ASP.NET Core 2.0 for Web Application Backend
- CreateJS for Video Manipulation in Browser
- React for Frontend UI

System Architecture

System Components

- Software Platforms / Technologies
  - Microsoft Azure
  - Bing Image Search API
  - Soundcloud API
  - Microsoft Cognitive Services API
  - ASP.NET Core 2.0
  - MySQL Database
  - HTML5, CSS3, JavaScript, CreateJS, React
  - Visual Studio
  - JetBrains Rider

Testing

- Display voice commands – test accuracy

- Rapid prototyping via browser developer tools

- JavaScript test environment - Mocha

- Postman for API calls BEFORE implementing

Risks

- Microsoft Azure Compute Resources
  - Video animation requires appropriate compute allocation
  - Minimize outside API calls – video render in browser via JavaScript
- Video Animation and Playback
  - Provide user with ability to play video in real time
  - Use JavaScript SDKs to render in browser rather than back-end implementation
- Storing Project State
  - Saving status of individual assets – elapsed video sequence
  - Research solutions for saving/loading video – load assets via URL
- Microsoft Cognitive Services API
  - Capabilities? Restrictions? How much data can we feed at once?
  - Research documentation – 'stress test' web demonstration against user requests

Questions?

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