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

Project Plan Presentation
Templatize R Development via Design Thinking
The Capstone Experience

Team Kellogg's

Savvy Barnes
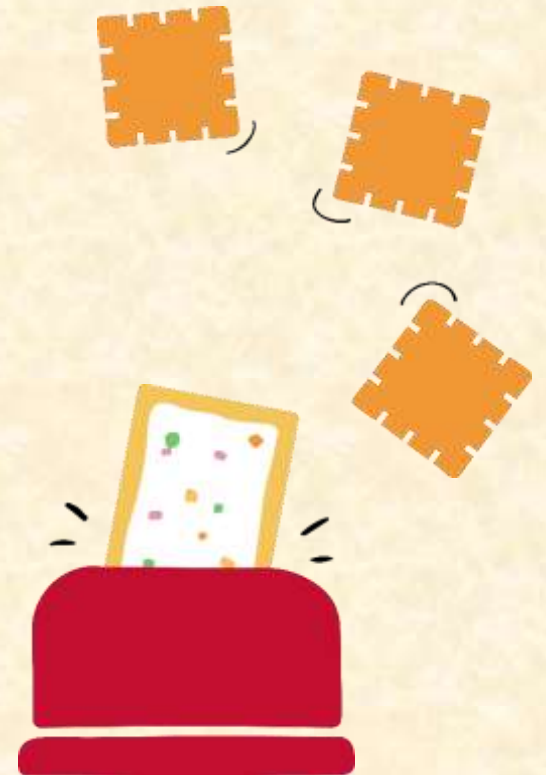Matt DiRisio
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Fall 2022

From Students…
…to Professionals

Project Sponsor Overview

- Kellogg's is a food manufacturing company
- Founded and based in Battle Creek, MI
- Employs around 31,000 people
- Behind popular foods such as:

Project Functional Specifications

- Improve the consistency of internal and external applications and the user experience of customers

- By creating themes that will address professional, customer-facing, and accessibility concerns

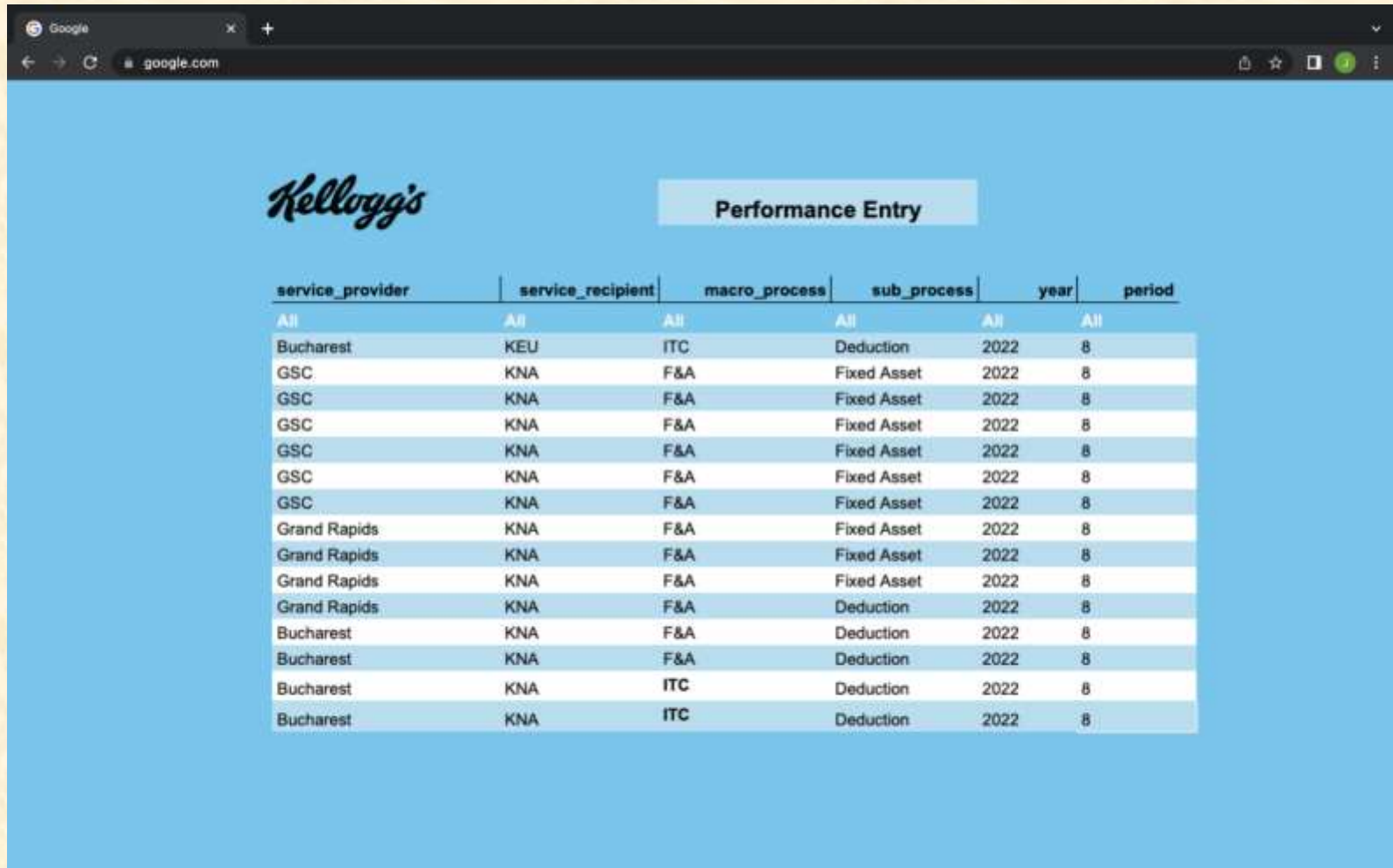- In addition to a web application where our themes and other Kellogg's branding assets will be made accessible

Project Design Specifications

- Themes are round buttons, selectable from the home page. Once a theme is selected, the entire application changes.

- Assets, images, and other branding material can be selected and viewed on the second page. They are displayed in a file-menu style to the left of the preview window.

- The third page allows developers to upload and delete themes or branding materials. Developers can choose images for themes.
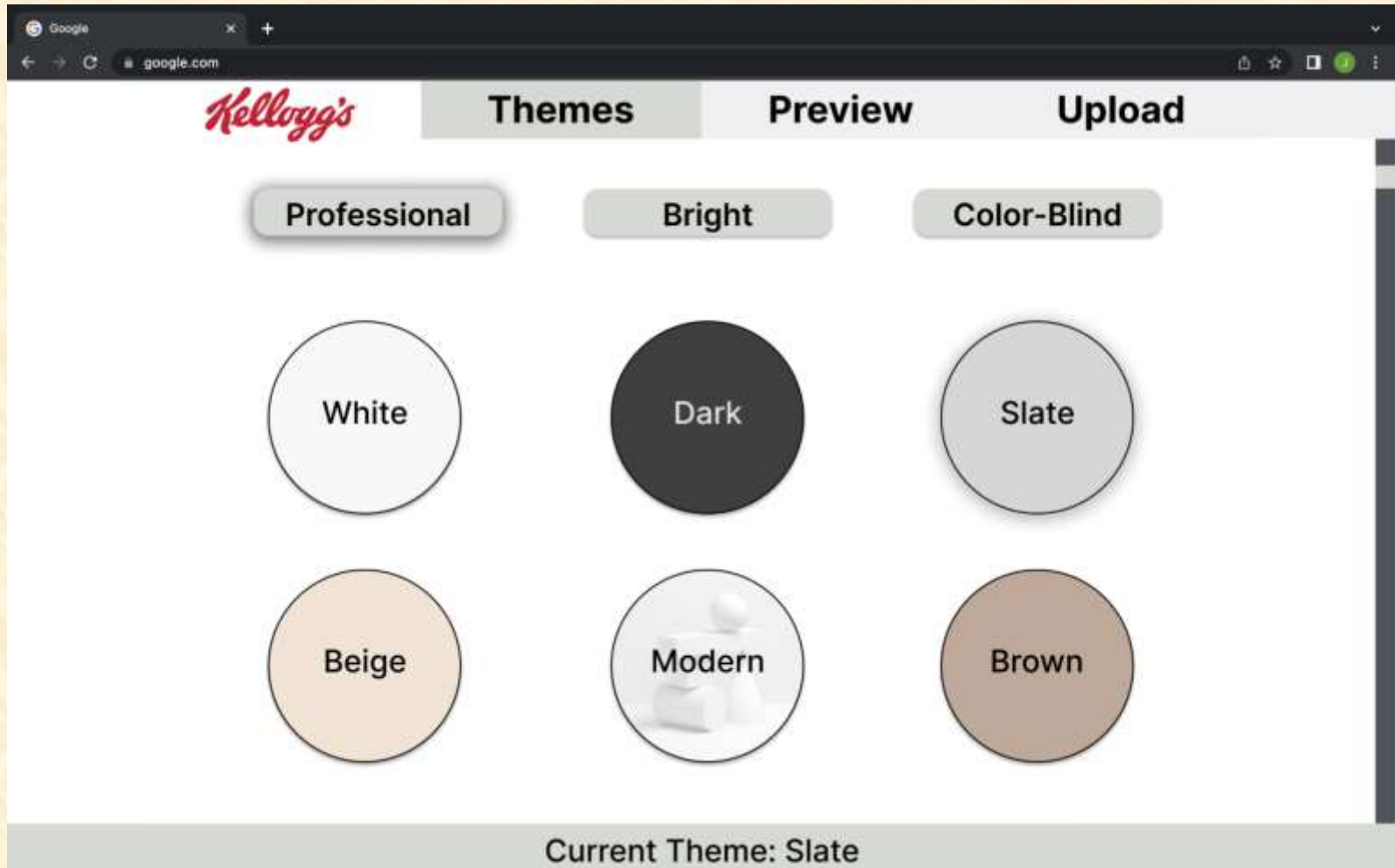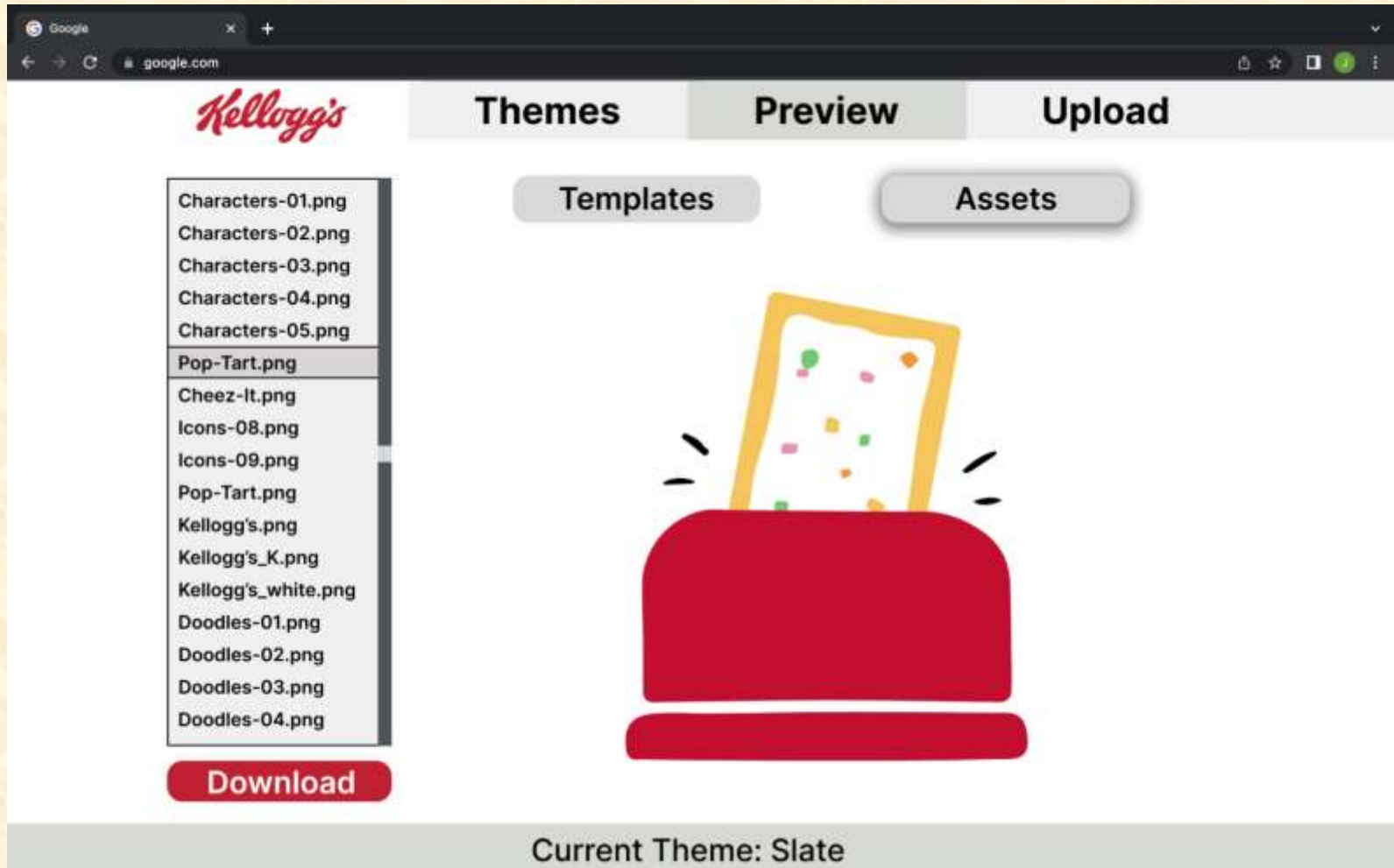
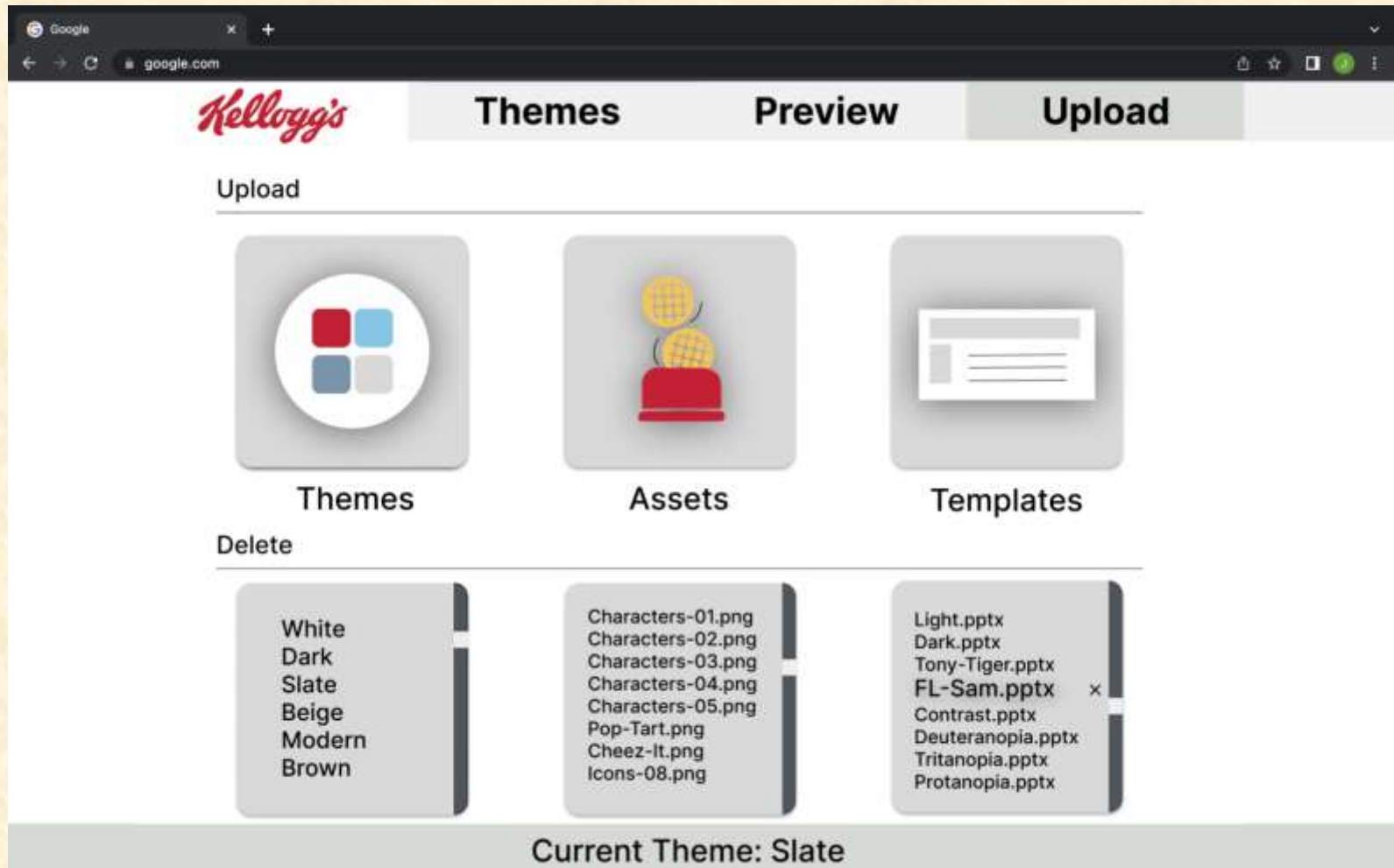# Screen Mockup: Theme Example

Screen Mockup: Theme Previewer

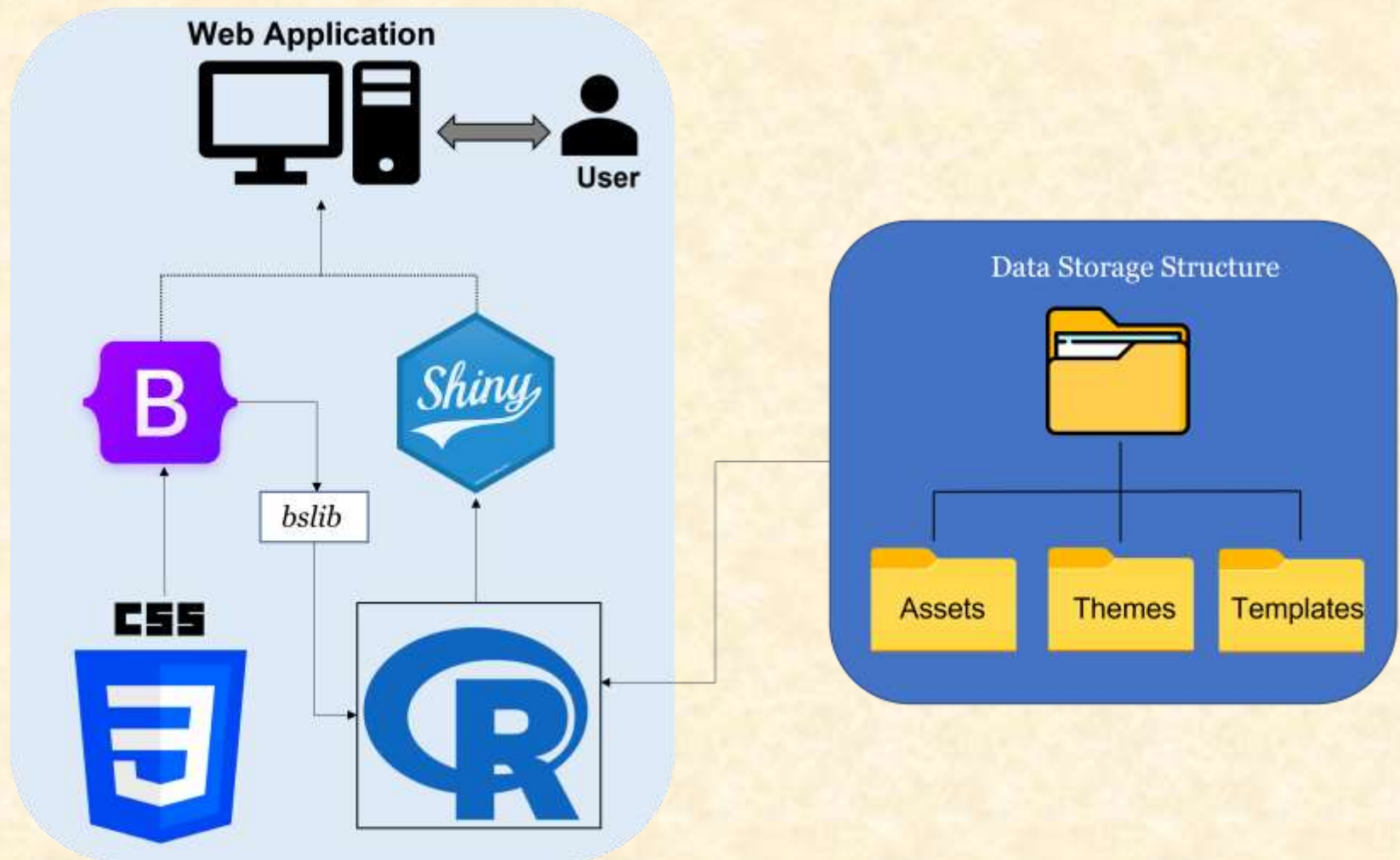# Screen Mockup: Asset Previewer

Screen Mockup: Admin Screen

Project Technical Specifications

- Programming Language R
  - Foundation for the web application

- Bootstrap5 Framework & CSS5 for design app

- R/Shiny Web Framework for functionality

- Localized folders store Assets, Themes, and Templates
  - Microsoft365R integration for .PPTX/.DOCX Templates

Project System Architecture

Project System Components

- Hardware Platforms
  - Windows/iMac Computers
- Software Platforms / Technologies
  - Visual Studio Code 2022
  - R/Shiny
    - bslib
  - Microsoft365R
  - Bootstrap5
  - CSS

Project Risks

- Heavy Design Element
  - Lack of familiarity with design elements could lead us astray, wasting time
  - Frequent discussion and prototype generation/presentation
- Theme Integration
  - Small selection of apps given, but developed themes should apply to all apps
  - Extensive and frequent testing; Experiment with provided apps
- Bslib documentation
  - Suggested R/shiny library has very limited documentation; Trial-and-error may be unavoidable, wasting time
  - Utilize available online resources; Contact experienced client when resources exhausted
- Office 365 Integration into Dashboard
  - App should have the capacity to store and preview branded Microsoft Office templates; specific interest expressed in PowerPoint templates
  - Discover behavioral differences from previewing other files. Utilize thumbnail images.

Questions?