



# Mental Model Assignment

## Output Options & Instructions

### Overview: Output Tiers

You may choose any of the following Tiers for Assignments 1, 2, or 3.

- [Tier 1](#): Simple Manual Upload (No coding required)
- [Tier 2](#): Simple Push to Remote (Intro to Git)
- [Tier 3](#): Template Modification (Intro to HTML/Web)
- [Tier 4](#): Freeform (Advanced or AI-assisted Coding)
- [Tiers Summary Table](#)

**Note:** For the Final Project, all students must utilize the [Student Gallery Workflow](#) at the end of this document (see [Student Gallery repo](#) for detailed instructions).

## Tier 1: Simple Manual Upload

*Best for: Quick submissions focusing purely on visual content.*

1. **Create:** Create your mental model using your chosen tool (Canva or Miro).
2. **Export:** Save your work as an image (.png or .jpg) or PDF.
3. **Upload:**
  - If you have not done so already, create a new repository on GitHub (> **Repositories** > **New**). (See [Starmap Section](#))
  - Name it something relevant (e.g., `mental-model-assignments-[username]`).
  - Inside the repo, click **Add file** > **Upload files**.
  - Drag and drop your file.
  - **Commit changes:** Write a description and click **Commit changes**.
4. **Submit:** Copy the URL of your repository and submit it to Canvas.

## Tier 2: Simple Push to Remote

*Best for: Getting comfortable with the standard Git workflow.*

1. **Create:** Create your mental model and save the file locally.
2. **Repo Setup:** If you have not done so already, create a new repository on GitHub (remote) for the class and **Clone** it to your computer (local). (See [Starmap Section](#))
3. **Move File:** Move your image file *into* the local repository folder you just cloned.
4. **Push:**
  - Open the folder in **VS Code** or **GitHub Desktop**.
  - **Stage** the new file.
  - **Commit** with a message.
  - **Push** to origin.
5. **Verify:** Check your repository on GitHub.com to ensure the file is there.
6. **Submit:** Copy the URL of your repository and submit it to Canvas.

## Tier 3: Incorporate into Template

*Best for: Displaying your work on a webpage without writing code from scratch.*

1. **Get the Template:**
  - Go to the class [Tier 3 Template Repository](#). Follow the instructions there for greater detail.
  - Click **Use this template > Create a new repository**.
  - Name it something relevant (e.g., `mental-model-webpage-[username]`).
2. **Clone:** Clone your new repository to your local machine.
3. **Add Your Content:**
  - Save or move your mental model image to the `images/` folder within the repo.
  - Open the repository folder in VS Code.
  - Open `index.html`.
  - Find the code comment `<!-- INSERT IMAGE HERE -->`.
  - Change the image source code to match your filename: ``.
4. **Preview:** View the webpage preview using the **Live Server** (by Ritwick Dey) extension or ask Copilot to run the webpage on a local host.
5. **[Optional] Customize:** Customize the webpage with your preferred colors, fonts, or other. Ask Copilot to make changes or try yourself – explore using AI assistance!
6. **Push:** Stage, Commit, and Push your changes.
7. **[Optional] Deploy:** Host your project using GitHub Pages. (See [Starmap section](#))
8. **Submit:**
  - If you chose to deploy the webpage, submit both the webpage URL and the repository URL.
  - If you did not deploy the webpage, submit a repository URL and a screenshot of the webpage preview.

## Tier 4: Freeform using IDE

*Best for: Students who want full creative control to build a React App, custom HTML site, or interactive visualization.*

1. **Initialize:** Create a repository (local folder) from scratch using `npx create-react-app` or your preferred stack.
2. **Develop:** Code your project. Ensure you have a `.gitignore` file to exclude `node_modules` (choose "Node" and ask Copilot to ensure it is configured properly if unsure). Explore using AI assistance!
3. **Push:** Initialize a Git repo locally, connect it to a remote GitHub repository, and push your code.
4. **[Optional] Deploy:** Host your project using GitHub Pages. (See [Starmap section](#))
5. **Submit:**
  - a. If you chose to deploy the webpage, submit both the webpage URL and the repository URL.
  - b. If you did not deploy the webpage, submit a repository URL and a screenshot of the webpage preview.

## Tiers Summary Table:

Tier	Process Steps	Tools Required	Skill Level
<b>Tier 1:</b> Simple Manual Upload to Remote Repo (Low Complexity)	<ol style="list-style-type: none"><li>1. Download mental model output to computer</li><li>2. Upload manually to GitHub repo</li></ol>	Web Browser, GitHub Account, Tool	Beginner
<b>Tier 2:</b> Simple Push to Remote Repo (Medium Complexity)	<ol style="list-style-type: none"><li>1. Download/move mental model output to local repository</li><li>2. Open local repository (folder) as a workspace in VS Code OR open GitHub desktop app</li><li>3. Push to remote GitHub repo</li></ol>	VS Code and/or GitHub Desktop, GitHub Account, Local File System, Tool	Beginner
<b>Tier 3:</b> Incorporate into Template using IDE (High Complexity)	<ol style="list-style-type: none"><li>1. Create new repo from <a href="#">template repo</a></li><li>2. Download/move output to local repository</li><li>3. Follow instructions to use mental model within template</li><li>4. Customize if desired</li><li>5. Push to remote GitHub repo</li></ol>	VS Code, Web Browser, GitHub Account, Local File System, Tool	Intermediate
<b>Tier 4:</b> Freeform using IDE (Advanced Complexity)	<ol style="list-style-type: none"><li>1. Download mental model output to local repository</li><li>2. Create/code from scratch with complete creative freedom. Use AI to assist you and experiment!</li><li>3. Push to remote GitHub repo</li></ol>	VS Code, Web Browser, GitHub Account, Local File System, Tool	Advanced

## FINAL PROJECT: Student Gallery Workflow

*Mandatory for the final assignment. See the [Student Gallery Repository](#) for detailed instructions.*

**Objective:** Add your final project to the class gallery. Your entry will be displayed as a card featuring your Name, a Thumbnail or Video Player of your work, a Description, and an optional External Link.

1. **Fork:** Go to the [Student Gallery Repository](#) and click **Fork**.
2. **Clone:** Clone *your forked repository* to your computer.
3. **Add Your Entry:**
  - **Upload Image:** Navigate to the `submissions/projects/` folder. Add your image file here. **Important:** You MUST name the file `your-username.mp4` (e.g., `twinkle-fairy.mp4`) to avoid overwriting other students' work.
  - **Create Data File:** Navigate back to the `submissions/` folder. Create a new file named `your-username.json`.
  - **Fill Details:** Copy the template code from the README into your file. You must fill in the following fields for your entry to display correctly:
    - **name:** Your actual name.
    - **projectTitle:** The title of your project.
    - **description:** A short sentence about your mental model.
    - **projectUrl:** An external link to your project/related to your project. Not required.
    - **projectPath:** The path to the video or image you just uploaded (e.g., `"projects/twinkle-fairy.mp4"`).
4. **Push:** Commit and Push changes to *your* fork.
5. **Pull Request:**
  - Go to the original Student Gallery Repository.
  - Click **Pull Requests > New Pull Request**.
  - Click **compare across forks**.
  - Select your fork as the "head repository."
  - Click **Create Pull Request**.