



# Instructions for Implementing Document Upload Feature with CodeIgniter 3, Bootstrap, ERD, and MySQL

## Objective:

Develop a document upload feature using **CodeIgniter 3** (CI3) for backend handling, **MySQL** for database management, **Bootstrap** for UI design, and **Figma** for wireframing. The feature must allow users to enter a **title** and upload **PDF** or **PowerPoint** files, with a **maximum file size of 100 MB**.

## 1. Design the User Interface (UI) in Figma

- **Create the Layout:**
  - Design a document upload page in **Figma** with the following elements:
    - **Document Title Input:** A field where users can input the title of the document.
    - **File Upload Field:** Allow users to browse and select a PDF or PowerPoint file for upload.
    - **Submit Button:** A button to submit the form after entering the title and selecting a file.
  - Ensure that the layout is **responsive** by utilizing **Bootstrap's grid system**.
  - Make sure all elements are aligned and spaced properly for a clean, user-friendly experience.
- **Error/Success Feedback:**
  - Design **error messages** for scenarios such as missing titles or unsupported file types (e.g., *"Please provide a title."*).
  - Include **success messages** to confirm that the file was successfully uploaded (e.g., *"File uploaded successfully."*).
- **Branding and Styling:**
  - Use **Bootstrap's built-in components** to maintain a consistent design.
  - Follow the project's **branding guidelines** for colors, fonts, and other design elements.

## 2. Database Design (ERD) with MySQL

- **Create the ERD:**
  - Design the **Entity Relationship Diagram (ERD)** using **MySQL** to structure the database.
- **ERD Relationships:**
  - If using user management, establish a **one-to-many** relationship between **Users** and **Documents** (one user can upload many documents).
  - Ensure there is no unnecessary redundancy or derived data in the database.

## 3. Implement the Upload Form with Bootstrap

- **UI Implementation:**
  - Use **Bootstrap** to style the document upload form.



- The form should contain:
  - A **title input field** for the document title.
  - A **file upload field** that restricts the accepted file types to **PDF** and **PowerPoint**.
  - A **submit button** to initiate the file upload.
- **Responsive Design:**
  - Leverage **Bootstrap's grid system** to ensure the form is responsive and adjusts well across mobile and desktop screens.
  - Ensure elements are aligned and spaced appropriately for a clean design.

#### **4. Implement File Type and Size Validation**

- **File Type Validation:**
  - Restrict the upload to only **PDF** and **PowerPoint** files.
  - Use appropriate **file validation libraries** to enforce this restriction.
- **File Size Validation:**
  - Set the maximum file size limit to **100 MB**.
  - If the file exceeds the size limit, display an error message informing the user that the file is too large (e.g., *"The file size exceeds the 100MB limit."*).

#### **5. Testing and Feedback**

- **User Testing:**
  - Perform testing on the document upload system across different devices and browsers to ensure everything works as expected.
  - Test for validation errors (missing title, unsupported file types, file size too large) and ensure clear error messages are displayed to users.
- **Performance Testing:**
  - Test file uploads with various file sizes (up to **100 MB**) to ensure the system can handle larger file uploads without performance issues.