

Software Engineering

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### Guide to Creating and Sharing an ERD

#### 1. Analyze the Scenario

* Identify the **key entities** (e.g., Doctor, Patient, Appointment, Bill, Insurance).
* List the **attributes** for each entity (e.g., Doctor: Name, Specialization; Patient: Name, Age, Illness).
* Determine the **connections** between entities (e.g., Doctor arranges appointments, Patient pays bills).

#### 2. List Entities and Details

* Write down all entities along with their main details. For instance:
  + **Doctor**: Name, ID, Area of Expertise.
  + **Patient**: Name, ID, Age, Medical Condition.

#### 3. Specify Relationships

* Use diamonds to depict **relationships**.
* Add labels to describe the type of relationship (e.g., arranges, covered by, generates).

#### 4. Link Entities

* Use lines to join entities and their relationships.
* Indicate **cardinality** to show the nature of the relationship (e.g., one-to-one, one-to-many, many-to-many). For instance:
  + A doctor can arrange multiple appointments.
  + A patient can make one or more payments.

#### 5. Add Attributes

* Represent attributes using ovals and connect them to their corresponding entities or relationships.

#### 6. Create the Diagram

* Draw the ERD using a diagram tool or by hand, ensuring everything is clearly labeled and structured.

### Steps to Share Your ERD on GitHub

#### 1. Save Your Diagram

* If it’s hand-drawn, scan or take a clear photo of it.
* Save the diagram as a digital file in a standard format such as PNG or JPEG.

#### 2. Rename the File

* Use a clear and descriptive name for the file, such as ERD\_Assignment.jpg.

#### 3. Set Up a GitHub Repository

* Log into your GitHub account.
* Click **New Repository**.
* Name the repository (e.g., ERD\_Assignment).

#### 4. Upload the Diagram

* Open the new repository.
* Click **Add File** > **Upload Files**.
* Drag and drop the file or click **Choose your files** to select the diagram.

#### 5. Save Your Changes

* Write a commit message like "Added ERD Diagram for Submission."
* Click **Commit changes** to upload the file to the repository.

#### 6. Share the Link

* Copy the repository’s URL.
* Share the link with your instructor or collaborators as needed.

LINK :