

# Experiment 3

Practical 3: List out the entities and identify the relationship between them. Also, identify related attributes supposed to be recorded while considering the normalization rule.

## Entities:

### 1. User

- Attributes:
  - UserID (Primary key)
  - Name
  - Email
  - Password (Hashed)
  - Role (Student/Faculty)

### 2. Project

- Attributes:
  - ProjectID (Primary key)
  - Title
  - Description
  - Status (Available/Unavailable)
  - FacultyID(Referencing Faculty.facultyId)

### 3. Proposal

- Attributes:
  - ProposalID (Primary key)
  - StudentID (Foreign key referencing User.UserID)
  - ProjectID (Foreign key referencing Project.ProjectID)
  - Status (Approved/Rejected/Pending)

#### 4. Faculty

- Attributes:
  - FacultyID (Primary key, also referencing User.UserID)
  - Department
  - Position

#### Relationships:

- **User - Proposal** (One-to-Many)
  - One user can have multiple proposals.
- **User - Faculty** (One-to-One)
  - A user can either be a faculty member or a student. This is represented through their role attribute.
- **Proposal - Project** (Many-to-One)
  - Multiple proposals can be made for one project.
- **Faculty - Project** (One-to-Many)
  - A faculty member can have multiple projects.

## ER Diagram

