

# Personal Portfolio Website with Project Management

## Entities

### 1. User (Admin)

#### **Attributes:**

- user\_id (Primary Key)
- username (Unique)
- first\_name (First Name of the user)
- last\_name (Last Name of the user)
- email (Unique)
- created\_at (Timestamp for account creation)
- role ('admin' or 'visitor' - to differentiate user types, though visitors may not need an entry in this table)
- active (Boolean flag to indicate whether the user is active)
- password (Password field to store the hashed password)

### 2. ExternalUser

#### **Attributes:**

- external\_user\_id (Primary Key)
- first\_name (First Name of the external user)
- last\_name (Last Name of the external user)
- user\_id (Foreign Key referencing User to associate the external user with a user (admin))
- email (email of the external user)
- platform ('LinkedIn', 'website', 'email', etc. - to indicate where the user came from)
- Created\_at (Timestamp for when the external user record was created)

### 3. Project

#### **Attributes:**

- project\_id (Primary Key)
- user\_id (Foreign Key referencing User - to associate projects with the admin user.)
- title (Title of the project)
- description (Detailed description of the project)
- technologies (A string that may contain a list or array of technologies used)
- link (URL to the project)
- created\_at (Timestamp for when the project was added)
- updated\_at (Timestamp for the last update)

#### 4. Skill

**Attributes:**

- skill\_id (Primary Key)
- user\_id (Foreign Key referencing User - to link skills to the admin user)
- skill\_name (Name of the skill)
- proficiency\_level (A rating or level indicating expertise)
- category (Category of the skill, e.g., "Programming", "Design")
- active (Boolean flag indicating if the skill is active or not)

#### 5. Experience

**Attributes:**

- experience\_id (Primary Key)
- user\_id (Foreign Key referencing User - to link experiences to the admin user)
- position (Position held by the user)
- company (Company where the user worked)
- start\_date (Start date of the experience)
- end\_date (End date of the experience, if applicable)
- description (Description of the role and responsibilities)

#### 6. Testimonial

**Attributes:**

- testimonial\_id (Primary Key)
- external\_user\_id (Foreign Key referencing ExternalUser - To link testimonials to an external user)
- user\_id (Foreign Key referencing User - to link testimonials to the admin user)
- content (Text of the testimonial)
- author\_name (Name of the person giving the testimonial)
- created\_at (Timestamp for when the testimonial was added)
- platform ('website', 'LinkedIn', 'other')
- response (Text for admin's response to the testimonial)
- response\_created\_at (Timestamp for when the response was made)

#### 7. ContactMessage

**Attributes:**

- message\_id (Primary Key)
- external\_user\_id (Foreign Key referencing ExternalUser - to link messages to an external user)
- name (Name of the sender)
- email (Email of the sender)
- platform ('website', 'LinkedIn', 'email', etc. - to indicate

- the source of the message)
- message (Content of the message)
- created\_at (Timestamp for when the message was sent)
- status (Enum: 'new', 'read', 'responded' - to track if the message has been addressed)
- response (Text for the admin's response to the message)
- response\_created\_at (Timestamp for when the response was made)

## 8. MessageThread

### Attributes:

- thread\_id (Primary Key)
- message\_id (Foreign Key referencing ContactMessage - to group messages in a thread)
- reply\_id (Foreign Key referencing ContactMessage - to link replies to the original message)
- created\_at (Timestamp for when the reply was made)

## Relationships

### 1. User to Project:

- **Type:** One-to-Many
- **Description:** A single user can have multiple projects.  
Each project belongs to one user.

### 2. User to Skill:

- **Type:** One-to-Many
- **Description:** A single admin user can have multiple skills listed.  
Each skill belongs to one user.

### 3. User to Experience:

- **Type:** One-to-Many
- **Description:** A single user can have multiple external users associated with them. Each external user belongs to one user.

### 4. User to ExternalUser:

- **Type:** One-to-Many
- **Description:** A single user can have multiple projects.  
Each project belongs to one user.

### 5. ExternalUser to Testimonial:

- **Type:** One-to-Many
  - **Description:** An external user can have multiple testimonials associated with them. Each testimonial is linked to one external user.
6. **ExternalUser to ContactMessage:**
- **Type:** One-to-Many
  - **Description:** An external user can send multiple contact messages. Each contact message is linked to one external user.
7. **User to Testimonial:**
- **Type:** One-to-Many
  - **Description:** A single admin user can have multiple testimonials associated with them. Each testimonial belongs to one user.
8. **User to ContactMessage:**
- **Type:** One-to-Many
  - **Description:** A single admin user can receive multiple contact messages. Each contact message is independent but can be viewed by the admin.
9. **ContactMessage to MessageThread:**
- **Type:** One-to-Many
  - **Description:** Each contact message can have multiple replies, creating a thread of communication.

## ER Diagram (Entity-Relationship Diagram)



