Domain: Task Management System

**1. Task**

Attributes:

1. TASK\_ID (int): Unique identifier for the task.
2. TITLE (String): Name or title of the task.
3. DESCRIPTION (String): Details or description of the task.
4. DUE\_DATE (LocalDate): The date by which the task should be completed.
5. PRIORITY (String): The priority level of the task (e.g., "High", "Medium", "Low").
6. STATUS (String): Current status of the task (e.g., "Pending", "In Progress", "Completed").
7. USER\_ID (int): The ID of the user to whom the task is assigned.
8. CREATION\_DATE (LocalDate): The date the task was created.
9. COMPLETION\_DATE (LocalDate, nullable): The date the task was completed (nullable if not completed).
10. ESTIMATED\_TIME (double): Estimated time to complete the task in hours.

**2. User**

Attributes:

1. USER\_ID (int): Stores the user id.
2. NAME (String): Full name of the user.
3. EMAIL (String): Stores the email address of the user.
4. PASSWORD (String): password of the user.
5. JOIN\_DATE (LocalDate): Date the user joined .
6. PHONE\_NUMBER (String): Contact number of the user.
7. STATUS (String): Current status (Active, Inactive).
8. LAST\_LOGIN (LocalDateTime): Date and time of the last login.

**3. Project**

Attributes:

1. PROJECT\_ID (int): ID for the project.
2. NAME (String): Name of the project.
3. DESCRIPTION (String): Description of the project.
4. START\_DATE (LocalDate): The date the project began.
5. STATUS (String): Current status of the project (Active, Completed).
6. USER\_ID (int): ID of the user managing the project.
7. TEAM\_SIZE (int): Number of users working on the project (if collaborated).
8. PRIORITY (String): Priority level of the project (High, Medium, Low).

**4. Comment**

Attributes:

1. COMMENT\_ID (int): Unique identifier for the comment.
2. TASK\_ID (int): ID of the task the comment is related to.
3. USER\_ID (int): ID of the user who posted the comment.
4. CONTENT (String): The content of the comment.
5. DATE (LocalDateTime): Date and time when the comment was posted.
6. IS\_EDITED (boolean): Indicates whether the comment has been edited.
7. ATTACHMENTS\_COUNT (int): Number of attachments with the comment.
8. VISIBILITY (String): Whether the comment is public or private.

**5. Attachment**

Attributes:

1. ATTACHMENT\_ID (int): Unique identifier for the attachment.
2. TASK\_ID (int): ID of the task the attachment is associated with.
3. FILE\_NAME (String): Name of the file.
4. FILE\_TYPE (String): Type of file (PDF, Image).
5. FILE\_SIZE (double): Size of the file.
6. UPLOAD\_DATE (LocalDateTime): Date and time the file was uploaded.
7. USER\_ID (int): ID of the user who uploaded the file.
8. FILE\_PATH (String): Path or URL to access the file.
9. IS\_DELETED (boolean): Indicates if the file has been deleted.

**6. Tag**

Attributes:

1. TAG\_ID (int): Unique identifier for the tag.
2. NAME (String): Name of the tag.
3. COLOR\_CODE (String): color code for display.
4. ASSOCIATED\_TASK\_COUNT (int): Number of tasks using this tag.
5. CREATION\_DATE (LocalDate): Date the tag was created.
6. LAST\_USED\_DATE (LocalDate, nullable): Date the tag was last used (nullable).
7. USER\_ID (int): ID of the user who created the tag.
8. DESCRIPTION (String): Description or purpose of the tag.

**7. Notification**

Attributes:

1. NOTIFICATION\_ID (int): Unique identifier for the notification.
2. USER\_ID (int): ID of the user receiving the notification.
3. TASK\_ID (int): ID of the task related to the notification .
4. MESSAGE (String): Content of the notification.
5. CREATION\_DATE (LocalDateTime): Date and time the notification was created.
6. IS\_READ (boolean): Indicates whether the notification has been read.
7. PRIORITY\_LEVEL (String): Priority of the notification (High, Medium, Low).