**Case Study: Task Management**

**Objective:** Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will manage a task tracking system, allowing users to perform CRUD (Create, Read, Update, Delete) operations for tasks, and include functionality for assigning tasks to team members.

**Functionalities:**

1. **Task Management:**
   * Add a new task
   * View task details
   * Update task information
   * Delete a task
2. **Task Assignment:**
   * Display list of available tasks
   * Display list of team members
   * Assign a selected task to a selected team member
   * Update the assignment record in the database
   * Validate that the selected task is available
   * Validate that the selected team member is available

**Database Schema:**

* **Task Table:**
  + task\_id (Primary Key)
  + title
  + description
  + status (e.g., Open, In Progress, Completed)
* **Team Member Table:**
  + member\_id (Primary Key)
  + name
  + email
  + role
  + tasks\_assigned (stores count of tasks assigned)
* **Assignment Table:**
  + assignment\_id (Primary Key)
  + task\_id (Foreign Key references Task Table)
  + member\_id (Foreign Key references Team Member Table)
  + assignment\_date

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for CRUD operations for tasks and task assignment.
* Ensure that the application updates the tasks\_assigned in the Team Member table appropriately.
* Handle exceptions effectively and provide user-friendly error messages.
* Ensure the application code is clean, well-documented, and follows standard coding conventions.

**Submission:**

* Submit the complete source code along with a README file that provides setup and usage instructions.
* Share your project by uploading it to a public GitHub repository.
* Provide the link to the GitHub repository.