**Case Study: Customer Support Ticketing System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a customer support ticketing system for a software company, allowing users to create new tickets, assign them to agents, and track their resolution.

**Functionalities:**

1. **Ticket Management:**
   * Create new support tickets
   * View ticket details
   * Update ticket information (e.g., status, priority)
   * Delete tickets
2. **Agent Assignment:**
   * Assign tickets to support agents
   * View agent details
   * Update agent information (e.g., availability, skillset)
3. **Ticket Resolution:**
   * Track ticket resolution status
   * Close tickets
   * View ticket history

**Database Schema:**

* **Ticket Table:**
  + ticket\_id (Primary Key)
  + customer\_name
  + issue\_description
  + status
  + priority
  + assigned\_agent\_id (Foreign Key references Agent Table)
* **Agent Table:**
  + agent\_id (Primary Key)
  + agent\_name
  + skillset
  + availability
* **TicketHistory Table:**
  + history\_id (Primary Key)
  + ticket\_id (Foreign Key references Ticket Table)
  + update\_date
  + update\_description

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing support tickets, assigning tickets to agents, and tracking ticket resolution.
* Ensure that the application accurately tracks ticket status, assigns tickets to agents based on their skillset and availability, and maintains a history of ticket updates.
* 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 to the coaches.