GUI Based Project - 9 Key Commands with Solutions

1. Creating the new project with JDK & IDE setup

Solution: Use an IDE like IntelliJ or Eclipse, set up a new Java project with JDK 11 or later. Configure build tools like Maven or Gradle if needed.

2. Define the project structure

Solution: Organize packages for model, dao, controller, util. Keep separation of concerns for easy maintenance and scalability.

3. Design the database schema for the project

Solution: Create an ER diagram or table schema. Define tables like users, transactions with primary keys and relationships.

4. Create a MySQL table

Solution: Use SQL commands to create tables. Example:

CREATE TABLE users (id INT PRIMARY KEY AUTO_INCREMENT, username VARCHAR(50), password VARCHAR(100));

5. Implement JDBC for database connectivity

Solution: Create a DBConnection class that loads the JDBC driver, establishes connection, and handles closing resources.

6. Create Model, DAO classes for the database operations

Solution: Model classes represent tables. DAO classes handle CRUD operations using prepared statements to interact with the database.

7. Aesthetics and Visual Appeal of the UI

Solution: Design a clean interface using JavaFX or Swing. Use consistent colors, fonts, and spacing for a professional look.

8. Component Placement and Alignment in the UI

Solution: Use layout managers (GridPane, VBox in JavaFX) for proper alignment. Ensure buttons, labels, and fields are logically placed.

9. Responsiveness and Accessibility of the UI

Solution: Make UI resizable and adaptable to different screen sizes. Use accessible fonts, labels,

and keyboard navigation where possible.