1. Setup Database:

* Create a MySQL database with tables for games, students, and slot bookings. Design the schema to efficiently store relevant information.
* Establish relationships between tables (e.g., a foreign key in slot bookings referencing the game and student tables).

2. JavaFX User Interface:

* Create JavaFX FXML files for each functionality (game registration, student registration, slot booking).
* Design the interface with appropriate labels, text fields, buttons, and other UI components.
* Use JavaFX controllers to handle user input and interactions.

3. Game Registration Management:

* Implement functionality to insert new game details into the database upon registration.
* Create a separate interface for modifying existing game details, and ensure changes are updated in the database.

4. Student Registration Management:

* Implement student registration functionality to insert new student details into the database.
* Develop a feature to modify student information and update the database accordingly.

5. Slot Booking:

* Design a slot booking system allowing students to select a game and book a slot.
* Implement logic to check for conflicts by querying the database to see if the selected slot is already booked.

6. Conflict Resolution:

* Handle conflicts by displaying an appropriate error message in case of a booking conflict.
* Provide a mechanism for users to choose an alternative slot.

7. User Interface Navigation:

* Develop a user-friendly navigation system to switch between different functionalities.
* Use buttons or a menu system to allow users to move seamlessly between game registration, student registration, and slot booking.

8. Database Integration:

* Integrate MySQL database connectivity into the JavaFX application.
* Implement Java Database Connectivity (JDBC) to interact with the database for CRUD (Create, Read, Update, Delete) operations.
* Ensure proper error handling for database connections and queries.