

GROUP FINAL PROJECT

FULL STACK SKILLS BOOTCAMP

FULL-STACK APPLICATION DEVELOPMENT: FINAL PROJECT

- **Lesson Overview:**
- In this lesson, we will focus on:
 - Core feature development and integration
 - GitHub Workflow

OBJECTIVES FOR SESSION 3

- **Develop Core Features:**

Implement user input and data display features (e.g., forms, dashboards).

- Begin building APIs for data exchange between the backend and frontend.

- **Authentication System:**

Implement user registration, login, and logout functionality.

- Set up secure authentication mechanisms (e.g., tokens, sessions).

- **Frontend-Backend Integration:**

Establish seamless communication between React and the backend.

- Test and refine API calls for proper data flow.

- **Ensure Responsiveness:**

Begin applying responsive design principles to key pages.

EXPECTED OUTCOMES

1. Core Features in Progress:

1. At least one working feature showcasing user interaction and data handling.

2. Authentication Functionality:

1. Basic authentication system ready for testing.

3. API Integration:

1. Successful data exchange between frontend and backend for at least one feature.

4. Responsive Design:

1. Basic layouts that adapt to desktop, tablet, and mobile views.

KEY ACTIVITIES

- **Frontend Development:**
Create interactive components for user input and data display.
 - Implement state management (e.g., React Context or Redux).
- **Backend Development:**
Build APIs for key features.
 - Connect APIs to the database for dynamic data handling.

KEY ACTIVITIES

■ Authentication:

1. Set up backend authentication or integrate third-party libraries (e.g. JWT and bcrypt)
2. Create React components for registration, login, and logout workflows.

■ Integration:

1. Test frontend-backend communication using tools like Postman or built-in browser tools.

■ Responsive Design:

1. Use CSS frameworks or media queries to ensure proper layout on different devices.

CHALLENGES TO ADDRESS

- **Authentication Complexity:**
 - Handling secure token storage and session management.
- **API Communication:**
 - Debugging issues in data flow between frontend and backend.
- **Time Management:**
 - Balancing simultaneous development of multiple features.
- **Cross-Browser Compatibility:**
 - Ensuring designs work across browsers and screen sizes.

KEY DELIVERABLES

- **Core Feature Progress:**

1. At least one implemented and tested feature.

- **Authentication:**

1. Functional registration, login, and logout.

- **Frontend-Backend Communication:**

1. A working API endpoint integrated with the frontend.

- **Responsive Layouts:**

1. Mobile-friendly and responsive design applied to key pages.

NEXT STEPS

■ Prepare for Session 4:

1. Continue core feature development.
2. Refine and expand authentication functionality.
3. Begin handling edge cases and error messages in user interactions.
4. Assign testing responsibilities to ensure ongoing quality control.

GOOD LUCK!

"The best way to predict the future is to create it." –
Abraham Lincoln

Let's bring our ideas to life and build something
amazing!

QUESTIONS?