**COMP229 – Web Application Development**

Assignment 3

# Portfolio Application – Integrating the Backend APIs to the Frontend Connecting Frontend and Backend, CRUD Operation, Authentication, Login (User Roles), Forms, State Management. Ensuring Complete Full Stack Portfolio Application.

Due Week #10. 19th July 2025 @ 11:59 pm

# Portfolio – Frontend – API consumption From Backend, Connecting Frontend and Backend, CRUD Operation, Authentication, Login (User Roles), Forms, State Management.

**Maximum Mark: 100**

**Overview**: Integrating the Backend APIs to the Frontend, connecting the Frontend and backend, perform CRUD Operation at the Frontend base on user roles, updating the contact form, creating the education, project, Signin, Signup form etc. ensuring state management. Students should at this stage have a working Full Stack Portfolio Application.

# Instructions:

The Portfolio Application:

**PARTI – Reference Slides – Week5, Week6 slides.**

1. Create the backend Authentication code if you did not do that in Assignment2 and Test the API routes.

|  |  |  |
| --- | --- | --- |
| **Methods** | **Urls** | **Actions** |
| POST | auth/signin | Signin user |
| GET | auth/signout | Signout user |

a) use week6 slide – Authentication.ppt to complete the backend authentication code

b) Create the route, corresponding controller function and authentication backend code for user to sign in and sign out using JWT token.

c) create protected routes. etc.

**PARTII – Reference Slides – Week8, Week9, Week10 slides.**

1. Create the forms, SignUp, Signin, Education or Qualification, Project using react form ensuring state management. (Frontend).
2. Update the Contact form using react form ensuring state management.
3. Integrate the Backend APIs to the Frontend (API consumption).
4. Create and Perform CRUD Operations for the objects Contact, Education or Qualification e.t.c
5. Authentication and user roles. User and Admin role. The Admin should be able to perform the CRUD operation for each object while the user are only able to view/read.
6. Hardcode the Admin role credentials in your MongoDB database other users can signup and signin using the credentials created on signup.

**PARTIII – Reference Slides – Week6, Week8, Week9, Week10 slides.**

1. Ensure you have a functioning Full Stack Portfolio Application. All entries from the Frontend are saved or stored in the database, seamless connection and communication with Frontend and Backend.
2. Ensure your application is error free.
3. Push/update your code in GitHub

**SUBMITTING YOUR WORK**

Your submission should include:

1. A zip archive of your Portfolio Project files. Do not use .rar
2. A link to GitHub
3. A word doc. Showing the snapshots

This assignment is weighed **5%** of your total mark for this course. Late submissions:20% deducted for each day late.