

# **COLLEGE OF SCIENCE AND TECHNOLOGY**

# **SCHOOL OF ICT**

#### **DEPARTMENT OF COMPUTER AND SOFTWARE ENGINEERING**

**ACADEMIC YEAR: 2021-2022** 

### **LOG BOOK**

Name of student: ...BIZIYAREMYE ALPHOSNSE.....Reg. No.....220011657.....

Department/Programme: .....COMPUTER AND SOFTWARE ENGINEERING (CSE).....

Name of company/Organization...RWANDA ENERGY GROUP (REG).....

Weekly Report No: ...5...From: ...27/2/2023....to...4/03/2023.....

Day/date	Brief description of work performed	No. of hours
Monday	Design header for home page in front end	3
2702/2023	Design menu for homepage on frontend	3
Tuesday 28/02/2023	Design login form in front end	3
	Design signup form in react	3
Wednesday 01/03/2023	Uploading the file in request table	3
	Connect add request backend to request from in front end	3
Thursday 02/03/2023	Connect login backend to front end and save needed data on local storage	3
	Design user dashboard	3
Friday 03/03/2023	Design adding request form in front end in user dashboard	3
	Connecting add request form to the request controller in backend	3
Saturday	Design and connect front end for student user to track their application	
	Student user logout	
Total hours		30

Sequence of activities for main job/assignment			
Design and implement the header for	Design and implement the menu for	Implement the student user logout	
the homepage in the frontend	the homepage in the frontend	functionality.	
Design and implement the login	Design and implement the signup	Design and implement the frontend	
form in the frontend using React and	form in the frontend using React and	for student users to track their	
HTML.	HTML.	application status.	

Note: Absence of trainee must be indicated on the log book

## Details of main job

Building a web application with multiple features and functionalities requires a comprehensive approach that involves several processes and tools. These processes and tools include frontend and backend development, data storage and retrieval, data validation, user authentication, and testing and debugging.

Connect the login backend to the frontend and save the necessary data on local storage. This involves creating a controller and a route in the backend to handle the login request, as well as using Axios or Fetch to send the request from the frontend. Once the user is authenticated, the necessary data such as the user's name and token should be saved on local storage for future use.

The frontend of the web application involves designing and implementing various user interface components, such as the header, menu, login, and signup forms. This process requires knowledge of HTML, CSS, and JavaScript to create an intuitive and visually appealing interface that ensures a positive user experience.

The backend of the web application involves developing controllers and routes to handle requests and responses. This process involves designing and implementing models for data storage and retrieval and performing CRUD operations for tables such as users and requests. The use of frameworks such as Node.js and Express can simplify this process and make it more efficient.

To enable file upload functionality, the application may require the use of libraries or APIs such as multer or AWS S3. Additionally, data validation and security features such as strong password validation and user authentication are necessary to ensure the integrity and privacy of user data.

Testing and debugging are critical processes in ensuring that the application is fully functional and free of errors before deployment. Testing involves creating and running tests to ensure that the application functions as expected, while debugging involves identifying and resolving errors and issues that arise during testing.

In summary, building a web application with multiple features and functionalities requires expertise in several areas, including frontend and backend development, data storage and retrieval, data validation, user authentication, and testing and debugging. The use of frameworks, libraries, and APIs can simplify and streamline the development process, making it more efficient and effective.

Name of Training Officer:
Signature:
Checked date: