

# **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: ...4...From: ...20/02/2023.....to ...25/02/2023......

| Day/date               | Brief description of work performed              | No. of hours |
|------------------------|--|--------------|
| Monday                 | Models for insert data in remain tables          | 3            |
| 20/02/2023             | Controller and route to send data in tables      | 3            |
| Tuesday                | Perform crud operation for user table            | 3            |
| 21/02/2023             | Perform crud operation for role and deptnt table | 3            |
| Wednesday              | Uploading the file in request table              | 3            |
| 22/02/2023             | Validating the types of file stored in system    | 3            |
| Thursday               | Controller for validating strong password        | 3            |
| 23/02/2023             | Updating data stored in the system               | 3            |
| Friday                 | Deleting data stored in the system               | 3            |
| 24/02/2023             | Creating pivot role_user table                   | 3            |
| Saturday<br>25/02/2023 | Assign role to the user                          |              |
|                        | Assign department to the user                    |              |
| Total hours            |  | 30           |

| Sequence of activities for main job/assignment |                                       |                                   |  |  |
|--|---------------------------------------|-----------------------------------|--|--|
| Create data models for the remaining           | Develop controllers and routes to     | Implement CRUD operations for the |  |  |
| tables   | send data to the tables               | user table                        |  |  |
| Implement CRUD operations for the              | Develop functionality to upload files | Implement functionality to update |  |  |
| role and department tables                     | in the request table                  | data stored in the system         |  |  |
| Create a controller to validate the            | Develop a controller for validating   | Implement functionality to delete |  |  |
| types of files stored in the system            | strong passwords                      | data stored in the system         |  |  |
| Create a pivot table to handle the             | Develop functionality to assign roles | Develop functionality to assign   |  |  |
| assignment of roles to users and               | to users                              | departments to users.             |  |  |
| departments to users                           |                                       |                                   |  |  |

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

#### Details of main job

The main job involves building a web application that provides an interface for administrators to manage users, roles, departments, and requests. To achieve this, the developer needs to create models for each of these entities that will allow the application to store and retrieve data in a structured manner.

The developer also needs to create controllers and routes that will handle the various operations that the admin can perform, such as inserting new data, updating existing data, and deleting data from the tables. The CRUD functionality is essential here because it enables the admin to manipulate the data in a convenient and efficient manner.

In addition to CRUD functionality, the application also needs to be able to handle file uploads. Specifically, the request table should allow users to upload files, and the application should be able to validate that the uploaded files are of the correct type.

Security is also an essential consideration for the application. To ensure that user data is secure, the developer needs to create a controller that validates strong passwords. This controller should ensure that users are creating passwords that meet specific criteria, such as a minimum length or a requirement for including special characters.

Finally, to enable the assignment of roles and departments to users, the developer needs to create a pivot table that links users to the roles and departments they have been assigned. This table allows the admin to easily manage the relationships between users, roles, and departments.

Overall, the main job requires the development of a complex web application that incorporates multiple features and functions to enable efficient management of users, roles, departments, and requests.

| Name of Training Officer: |  |
|---------------------------|--|
| Signature:                |  |
| Checked date:             |  |