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**Group 32**

**FDM Employee Portal**

**ECS506U Software Engineering  
Group Project**

**Requirements Elicitation Report**

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# 1. List of Requirements

## Functional Requirements

This section outlines the functional requirements for the Employee Portal web application at FDM. Functional requirements are detailed to specify essential features and data-related aspects, marked with a **"D"** for emphasis. Prioritisation between **core** and **optional** functions guides the development approach, ensuring a focused prototype.

The use case column correlates requirements with the use cases in the use case diagram. These requirements serve as a guide for development, aligning the platform's construction with FDM's organisational needs. The functional requirements allow for a robust and user-friendly Employee Portal.

ID	Requirement	Type	Priority	Use Case
1	Employees should be able to securely login and register on the employee portal.	Functional	Core	Login
2	Employees should be able to securely log in using a unique username and password.	Functional	Core	Login with Username and Password
3	All users should have the option to log in using their email address along with a password.	Functional	Core	Login with Email and Password
4	All new users should be able to register on the employee portal.	Functional	Core	Register
5	All users must be able to update their personal information without HR intervention.	Functional (D)	Core	Update Personal Information
6	Employees should have the ability to communicate with other employees, HR, or management through the portal.	Functional	Core	Communicate
7	All users should have the ability to communicate through direct messaging within the portal.	Functional	Core	Direct Messaging
8	All users should be able to engage in video conferencing for virtual meetings and discussions.	Functional	Core	Video Conferencing
9	Employees should be able to enrol in necessary training programs through the	Functional	Optional	Enrol in Program

	portal as part of the Recruit, Train, Deployment model.			
10	Employees should have the option to enrol in the Graduates Program.	Functional	Optional	Enrol in Graduates Program
11	All users should have the option to enrol in the Ex-Forces Program.	Functional	Optional	Enrol in Ex-Forces Program
12	All users should have the option to enrol in the Returners Program.	Functional	Optional	Enrol in Returners Program
13	Employees should have the capability to select preferred projects or assignments within their region or globally.	Functional	Optional	Select Project
14	Employees should be able to select projects within their specific region.	Functional	Optional	Select Project in a Region
15	Employees should be able to select projects on a global.	Functional	Optional	Select Global Project
16	The portal should offer a project feedback module where employees can rate and provide reviews for projects they've completed, including aspects such as project management, client communication, and overall experience.	Functional	Optional	Rate and Review Projects
17	All employees should be able to book and manage annual leave directly through the portal.	Functional	Core	Book Annual Leave
18	Employees should have access to a helpdesk or support system for quick resolution of common issues or questions.	Functional	Core	Access Support Desk
19	The portal should offer a dynamic FAQ section that evolves based on common queries and AI learning.	Functional	Core	Dynamic FAQ
20	The portal should provide real-time notifications to employees on internal updates and HR process changes through an internal newsfeed or notification system.	Functional	Core	Notify on Updates
21	Consultants should be able to submit their timesheets for the projects they are working on.	Functional (D)	Optional	Submit Time Sheets

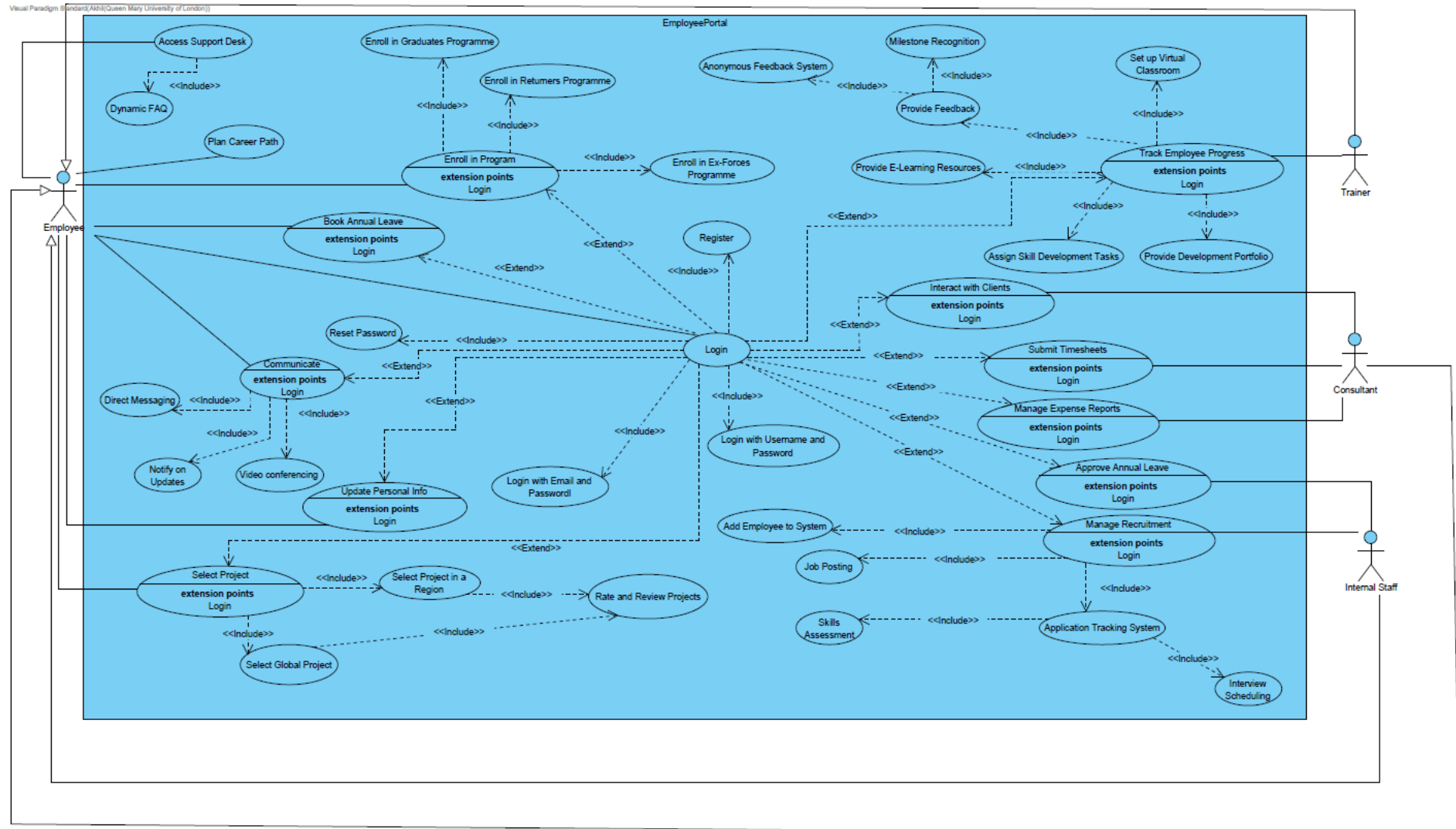
22	Consultants should have the capability to manage and report any work-related expenses through the portal.	Functional	Optional	Manage Expense Reports
23	Internal staff should be able to add new employees to the system for access to necessary resources and tools for their role.	Functional	Core	Add Employee to System
24	Internal staff should be able to manage the recruitment process through the portal, including posting job openings, reviewing applications, and scheduling interviews.	Functional	Core	Manage Recruitment
25	The portal should have the capability for HR staff to create and publish job postings, with fields for job descriptions, qualifications, and application instructions.	Functional	Core	Job Posting
26	Integration of an application tracking system that allows HR to monitor the status of candidates' applications throughout the hiring process.	Functional	Core	Application Tracking System
27	The portal should feature a skills assessment module where candidates and employees can take assessments, with results being stored and tracked over time.	Functional	Core	Skills Assessment
28	Development of an interview scheduling tool within the portal that allows candidates to book interview slots based on the availability of HR staff and hiring managers.	Functional	Core	Interview Scheduling
29	Trainers should be able to assign training to employees and track compliance through the portal.	Functional	Core	Assign Skill Development Tasks
30	Trainers should provide e-learning resources for employees to improve their skills through the portal.	Functional	Core	Provide E-learning Resources
31	Trainers should gather and analyse feedback on training sessions for continuous improvement through the portal.	Functional	Core	Provide Feedback
32	The portal should support the ability for consultants to interact with clients	Functional	Optional	Interact with Clients
33	Employees should be able to plan their career path within FDM through the portal.	Functional	Optional	Plan Career Path
34	Trainers should be able to use a virtual classroom feature to conduct and manage online training sessions.	Functional	Core	Set up Virtual Classroom

35	The portal should include a feature for recognising employee milestones.	Functional	Optional	Milestone Recognition
36	A feedback and improvement suggestion system that allows anonymous submissions to encourage candid feedback.	Functional	Core	Anonymous Feedback System
37	Implementation of a self-service password reset tool with security questions to reduce IT support tickets.	Functional	Optional	Reset Password
38	An integrated professional development portfolio for a trainer to track employee certifications, courses, and skills should be provided	Functional	Core	Development Portfolio
39	The portal should include an annual leave management system that allows managers to approve or decline leave requests, view team leave calendars, and manage department leave quotas.	Functional	Core	Approve Annual Leave
40	The portal should have a comprehensive employee progress tracking system that records training completion, performance reviews, goal achievements, and career milestones.	Functional	Core	Track Employee Progress

### Non-Functional requirements

ID	Requirement	Type	Priority	Use Case
1	The EP will be able to support 5000+ sessions	Capacity	Core	All
2	The EP will use a web browser as its user interface	Compliance to standards	Core	All
3	The EP shall be available 24/7 Every day of the year	Availability	Core	All
4	The EP will contain up to 5000+ users in the database	Capacity	Core	All
5	The EP can allow user to login within 5 seconds	Performance	Optional	Login
6	The EP should work on different operating system	Compatibility	Optional	All
7	The EP must have a Mean time to repair that does not exceed 2 hours	Reliability	Core	All
8	The EP must have a user-friendly interface	Ease of use	Core	All
9	The EP must support easy integration of future functionalities	Extendibility	Core	All
10	EP can use role-based access control to limit access to sensitive data.	Security	Core	Login

## 2. Use-Case Diagram



## 3. Use-Case Description

### **USE CASE 1-**

#### Name

Add Employee to System

#### Brief Description

Internal staff, specifically HR, should be able to add new employees to the system for access to necessary resources and tools for their role.

#### Actors

Internal staff

#### Preconditions

Internal staff must be logged in.

#### Basic Flow

1. Internal staff logs into the system.
2. Internal staff goes to the recruitment section.
3. Internal staff enters all the details of the employee to be added.
4. Internal staff allocates the new employee to a specific role.
5. Internal staff clicks the Submit button.
6. System adds new employee to the system.

#### Alternate Flows

##### System fails to add new user to the system.

- 6.2 System shows an error message.
- 6.3 User is asked to try again.
- 6.4 System carries on with Basic Flow step 5.

##### An employee with matching details is already on the system.

- 3.1 System tells user that this employee already exists.

##### Option 1:

- 3.2 Internal staff realises that the employee has already been put into the system.
- 3.3 Exits

##### Option 2:

- 3.2 Internal staff realises they input the wrong data.
- 3.3 System carries on with Basic Flow step 3.

#### Post Conditions

- New employee is added to the system.
- New employee is able to access the employee portal.



## **USE CASE 2-**

### Name

Assign Skill Development Tasks

### Brief Description

Trainers should be able to assign training to employees and track compliance through the portal.

### Actors

Trainer

### Preconditions

Trainer must be logged in and employees must be on system.

### Basic Flow

1. Trainer logs into the system.
2. Trainer goes to the training section.
3. Trainer selects which development tasks they will assign.
4. Trainer selects which group of employees they will allocate the chosen development tasks to.
5. Trainer clicks the Submit button.
6. System adds these tasks to the corresponding employee's task lists.
7. System alerts the relevant users that a new task has been set for them to complete.
8. System sends a confirmation message to the trainer that the tasks have been provided to the employees and that they have been notified.

### Alternate Flows

#### System fails to allocate the tasks into the employees' task lists.

- 6.1 Trainer gets an error message from the system.
- 6.2 Trainer selects the correct tasks for the correct group of employees.
- 6.3 System carries on with Basic Flow step 5.

#### Employees are not notified that they have new tasks.

- 8.1 Trainer informs the system that employees have not been notified.
- 8.2 System carries on with Basic Flow step 7.

### Post Conditions

- Training development tasks are available for the employees to complete.
- Employees get notified that they have new tasks to complete.
- Trainers get a confirmation message that everything has gone through.

## 4. Risk Assessment

Risk	Likelihood	Severity	Impact	Preventative / Mitigating Actions
Architecture is not fit for purpose	Low	High	Doesn't meet user requirements or needs	Research if the frameworks are suitable
Architecture is infeasible	Low	High	Unfinished/ low quality product	Research budget friendly options
Design lacks flexibility	High	Medium	Doesn't meet user's need	Receiving constant feedback from clients and adjust our design respectively
Technology components have security vulnerabilities	Medium	High	Personal data leaked	Update and backup the application. regularly, use firewalls and anti-malware software.
Technology components are over-engineered	Low	Low	Unnecessary details	Receive feedback throughout group meetings to ensure everyone is on task
Technology components aren't reliable	Low	High	Unusable / unstable product	Research and test the components
Information security incidents	Low	Medium	Personal data leaked	Trusted developers have access to the application, implement HTTPS
System outages	Medium	High	Unusable / unstable product	We are going to use AWS to host our web server as it is reliable
Integration testing environments aren't available	Low	High	Hard to debug and change	Implement a Test-driven development (TDD) practice
Legal & regulatory change impacts project	Medium	High	Unusable product	Research about specific laws that span the different regions which FDM employ in
Members unable to work due to eye fatigue or RSI	Medium	Medium	Fall behind schedule	Take frequent breaks and do hand stretches