Stage: **F2**

Group symbol: **K02-20c**

Team: **1**

Project title: **Placement Management System**

Team members (*filled by PM, Team Leader*):

No	Name	Surname	Student ID	Role
1	Krishna Mukesh	Patel	270446	PM, Team Leader
2	Tiago	Fernandes	270439	Team member

2. Requirements specification **(F2)**

2.1. Functional Requirements Specification

Symbol	Type	Description	Significance	Source
1	User Interface	It allows students to register and create a profile	Must-have	Student
2	User Interface	It allows universities to register and create a profile	Must-have	University
3	User Interface	It allows students to search for available placements	Must-have	Student
4	User Interface	It allows universities to search for available students	Must-have	University
5	User Interface	It allows students to apply for a placement	Must-have	Student
6	User Interface	It allows universities to review and accept student applications	Must-have	University
7	User Interface	It allows students to track the status of their applications	Should-have	Student
8	User Interface	It allows universities to track the status of placement offers	Should-have	University
9	Business Logic	It validates student and university registration information	Must-have	Admin
10	Business Logic	It ensures students meet placement requirements	Must-have	Admin
11	Business Logic	It allows universities to set placement requirements	Must-have	University
13	Business Logic	It notifies students of new available placements	Could-have	Admin
14	Data Exchange	It allows universities to upload placement details and requirements	Must-have	University
15	Data Exchange	It allows students to upload academic transcripts and other required documents	Must-have	Student
16	Data Exchange	It stores and manage student and university profiles	Must-have	Admin

17	Data Exchange	It stores and manage placement applications and offers	Must-have	Admin
18	Data Exchange	It allows system administrators to generate reports on placement activity	Should-have	Administrator
19	Data Exchange	It allows system administrators to manage user accounts.	Should-have	Administrator
20	Data Exchange	It ensures system security and protect user data	Must-have	Admin

2.2. Non-Functional Requirements

Symbol	Type	Description	Significance	Source	Verification method
1	Efficiency	The system responds quickly to user requests and perform tasks efficiently, such as loading pages, processing queries, and retrieving data.	Must Have	Administrator	Stress testing to evaluate system performance under high traffic conditions and performance testing to measure response times and processing speed under different loads.
2	Usability	The system is easy to use, with a user-friendly interface, clear navigation, and intuitive design to ensure a positive user experience.	Must Have	End Users	Real-world usability testing to assess the system's ease of use and effectiveness in meeting user needs.
3	Scalability	The system handles increasing numbers of users, data, and concurrent requests without significant degradation in performance.	Should Have	Administrator	Scalability testing is used to determine a system's ability to handle increased loads and to identify performance bottlenecks.
4	Portability	The system is compatible with different web browsers, operating systems, and devices, such as desktops, laptops, tablets, and smartphones.	Should Have	End Users	Testing for compatibility across browsers, operating systems, and devices to ensure consistent performance and display across multiple platforms.

5	Reliability	The system is dependable, with minimal downtime, high availability, and robust error handling to ensure uninterrupted access and data integrity.	Must Have	Administrator	Reliability testing to measure system uptime, error rates, and recovery mechanisms in case of failures.
6	Maintainability	The system is easy to maintain and update, with well-structured and documented code, modular design, and efficient database schema.	Should Have	Administrator	Code review, documentation review, and database schema analysis to ensure maintainability and ease of future updates.
7	Availability	The system is available to users 24/7, with minimal scheduled maintenance windows and proactive monitoring to ensure high availability.	Must Have	Administrator	Logging and monitoring tools for tracking system availability, uptime, response times, and regular maintenance schedules.
8	Privacy	The system protects users' personal and sensitive information, such as login credentials, student records, and payment details, with strong encryption, authentication, and access controls.	Must Have	End Users, Administrator	Compliance with data protection regulations through security audits, vulnerability assessments, and penetration testing.
9	Safety	The system ensures the safety of users and their data by implementing security measures to protect against cyber threats, such as malware, hacking, and data breaches.	Must Have	End Users, Administrator	To mitigate risks and protect against cyber threats, security measures such as firewalls, antivirus software, intrusion detection will be used.

10	Standards	The system follows industry standards and best practices for web development, such as HTML, CSS, and PHP coding standards, database normalization, and secure coding practices.	Must Have	Administrator	Code review, compliance checks, and adherence to industry standards and best practices for web development.

2.3. Use Case Diagram