

**School of Computing**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 21CSC303J**

**Course Name: Software Engineering and Project Management**

| **Experiment No** | 3 |
| --- | --- |
| **Title of Experiment** | System, Functional and Non-Functional Requirements of the Project |
| **Name of the candidate** | Ponnuri Aniruddha |
| **Team Members** | Vamshi Gadde (RA2112704010017)  Y Shabanya Kishore (RA2112704010018) |
| **Register Number** | RA2112704010015 |
| **Date of Experiment** | 05/02/2024 |

**Mark Split Up**

| **S.No** | **Description** | **Maximum Mark** | **Mark Obtained** |
| --- | --- | --- | --- |
| 1 | Exercise | 5 |  |
| 2 | Viva | 5 |  |
| **Total** | | **10** |  |

**Staff Signature with date**

**Aim**

To identify the system, functional and non-functional requirements for the project.

**Team Members:**

| **S No** | **Register No** | **Name** | **Role** |
| --- | --- | --- | --- |
| **1** | **RA2112704010015** | Ponnuri Aniruddha | **Rep/Member** |
| **2** | **RA2112704010018** | Y Shabanya Kishore | **Member** |
| **3** | **RA2112704010017** | Vamshi Gadde | **Member** |

**Project Title: SRM RESEARCH HUB**

**System Requirements:**

Hardware

* Server infrastructure capable of hosting web services, managing databases, and storing sensitive data.
* Scalable storage solutions can handle increasing volumes of research papers and user data.

Software:

* Web server software and a database management system (such as MySQL or PostgreSQL).
* Frameworks and libraries designed for web application development

Compatibility:

* Compatibility with a variety of research paper file formats (for example, PDF and DOCX).

**Functional Requirements**

User Authentication and Authorization:

* Users should be able to register for accounts with a valid email address and password.
* Registered users should be able to log in to the website securely.
* The system should enforce password strength requirements and provide options for password recovery and account management.
* Different user roles (e.g., regular user, administrator) should have different levels of access permissions.

Research Paper Discovery and Search:

* Users should be able to browse and search for research papers by title, authors, publication date, keywords, and categories.
* The search functionality should support advanced filtering options to refine search results.
* Users should be able to view detailed information about each research paper, including abstracts, authors, publication details, and related metadata.

.Research Paper Upload and Submission:

* Registered users should have the ability to upload research papers to the platform.
* The upload process should include fields for entering metadata such as title, authors, abstract, keywords, and publication date.
* The system should validate uploaded papers to ensure they meet specified file format and size requirements.
* Uploaded papers should undergo review by administrators before being made publicly accessible.

User Interaction and Collaboration:

* Users should be able to bookmark or save research papers for later reference.
* Users should have the ability to create personal collections or folders to organize and manage saved papers.
* The system should support user comments, annotations, and discussions on individual research papers.
* Collaboration features such as sharing papers with colleagues or inviting collaborators should be available.

Administrative Tools:

* Administrators should have access to tools for managing user accounts, reviewing uploaded papers, and moderating user interactions.
* The system should provide administrative dashboards and reporting tools for monitoring platform usage and performance.

**Non-Functional Requirements**

Usability:

* The website should have a clean and intuitive user interface, with consistent navigation and layout across pages.
* Content should be organized logically, with clear labels and descriptive headings to aid user comprehension.
* The website should be responsive and mobile-friendly, adapting to different screen sizes and devices

Reliability:

* The system should be reliable and resilient, with mechanisms in place to detect and recover from failures automatically.
* Error handling and logging should be implemented to track system errors and provide useful feedback to users and administrators.
* Backup and recovery procedures should be documented and tested regularly to ensure data integrity and availability.

**Result**

Thus the requirements were identified and accordingly described.