

PROJECT PROPOSAL

GROUP PROJECT

CST 292-2

Group No: CST-02

Internship Finder Platform

Computer Science & Technology

Department of Computer Science and Informatics

Faculty of Applied Sciences

Uva Wellassa University of Sri Lanka

2025

DECLARATION

We hereby declare that the project will be developed by us and will be our own effort and that no part will be plagiarized without citations under the supervision of Ms.D.P. Jayathunga, lecturer. This Project Proposal is submitted for the partial fulfillment of the requirement of the course unit CST292-2, Project I for the degree of Computer Science & Technology.

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1. Introduction

1.1 Project Title

Internship Finder System (Intern Spark)

1.2 Project Description

Due to a deficiency of centralized access to open employment, it is difficult for many recent graduates and students in Sri Lanka to find suitable internships. Students tend to go for unofficial sources or out-of-date approaches even when the need for qualified interns is on the increase for companies, which limits access, results in missed opportunities, and creates unequal exposure for various universities and geographies.

At the same time, businesses struggle to find and hire qualified applicants for internship positions. Managing applications, monitoring intern performance, and sustaining involvement with educational institutions become ineffective without an appropriate structure in place. Workforce development is developing potential is underutilized as a result of the gap between academic institutions and the business sector.

A web site called the Internship Finder System was created to fill this gap by bringing together enterprises, educational institutions, and students on a single, public platform. Students can search and apply to internship postings, build full-profiles, and get up-to-the-minute application status updates through the site. It offers enterprises the ability to manage applications, post internship vacancies, update company profiles, and communicate with existing interns.

Role-based student management for corporate representatives, institutional coordinators, and students is one of the core features. Automated alerts, real-time application tracking, and there are some other related features. Corporate representatives can manage internship postings efficiently and brand themselves using customized profiles. Academic institutions can track student interaction and ensure industry-academic collaboration.

At all, the system improves access, speeds up the internship procedure, and facilitates equitable, transparent, and effective internship opportunities across Sri Lanka.

1.3 Background and Motivation

The Internship Finder System is a centralized platform designed to bridge the gap between students, educational institutions, and businesses in Sri Lanka. It allows students to search and apply for internships, create detailed profiles, and receive realtime updates on their applications. Companies can efficiently post opportunities, manage applications, and connect directly with interns, while institutions can track student progress and foster industry collaboration. With features like automated notifications, role-based access, and performance tracking, this platform aims to streamline the internship process, promote transparency, and create equal access to career-building opportunities.

A factor that directly affects job seekers in the IT field is finding a company that is suitable for their intern. Many job seekers are learning towards IT related degrees. Therefore, there has been great competition in the job field. This web platform makes it easy for job seekers can easily find internship opportunities and for companies to post job vacancies. [1]

1.4 Problem in Brief

Nowadays, many students are pursuing IT-related degrees. Therefore, there has been great competition in the job field. Also, companies are trying to hire interns.

1.5 Proposed Solution

Using this platform, job seekers can find internships opportunities very easily and companies can hire interns with good skills.

1.6 Project Aim and Objectives

To develop a user-friendly web-based platform that streamlines the internship search and recruitment process by connecting job seekers with suitable opportunities and enabling employers to efficiently identify and shortlist qualified candidates.

1.6.1 Project Objectives

1. To create a centralized internship platform for job seekers and companies.

Develop a unified web-based platform that connects students seeking internships with companies offering opportunities, streamlining the entire internship process.

2. To allow job seekers to apply, track, and manage applications easily.

This objective ensures students can easily apply for internships, track application statuses, and manage all submissions through a simple, organized dashboard streamlining the entire process for better convenience and clarity.

3. To enable companies to post internships and manage applications effectively.

Allow companies to create profiles, post internship opportunities, and manage student applications through a dedicated dashboard, making the recruitment process more organized and efficient.

2.Methodology

2.1 Waterfall Methodology

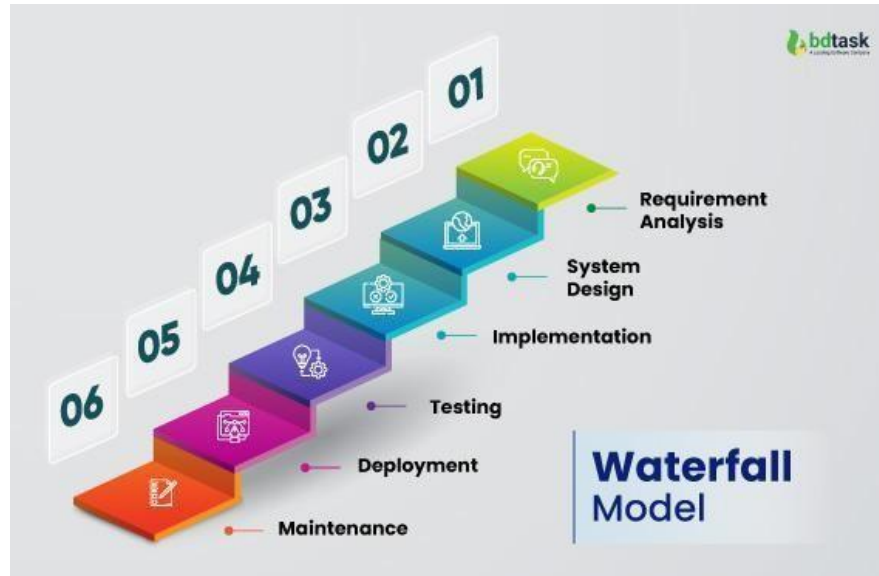


Figure 1: Waterfall Model

Implementing an Internship Finder platform, which serves dual user roles, job seekers searching for internships and companies posting opportunities benefits significantly from the Waterfall methodology. This model suits our project well due to its linear and sequential approach, ensuring each development stage is completed before the next begins. As the core functionalities (such as job posting, filtering, and applying) are well defined and not expected to change frequently, the Waterfall model provides a reliable structure for development.

By using the Waterfall methodology, we can meticulously plan from the outset and proceed step by step, reducing the risk of unexpected changes or disruptions later in the process. This approach helps ensure that the platform delivers what is expected in terms of functionality and user experience. It supports effective scheduling, resource allocation, and progress tracking, all of which are essential in delivering the project within scope and on time.

Additionally, the Waterfall methodology encourages thorough documentation and planning, which ensures clarity among team members and stakeholders. This clarity is specially important for a platform that serves multiple user types with distinct needs

and behaviors. With defined requirements and structured phases, the Waterfall approach allows us to manage complexity, reduce risks, and ensure high-quality output. [4]

2.1.1 Requirement Analysis

We start by gathering and documenting all requirements related to the internship finder. This includes features for job seekers (searching and applying for internships, profile management) and companies (creating job postings, viewing applicants, managing listings). We also analyze user roles, user flows, and system permissions, as well as compatibility with various devices and browsers. [2], [3]

2.1.2 System Design

During this stage, we design the system architecture, database schema, and user interface (UI) designs. The database is structured to handle student profiles, company accounts, job postings, applications, and messaging. Wireframes and mockups are created for key interfaces such as

- Student dashboard
- Internship listings and filters
- Application submission form
- Company dashboard for managing job posts
- Admin interface for platform oversight

2.1.3 Implementation

We develop the platform based on the finalized design specifications. Front-end interfaces are built upon React Js + Tailwind CSS and responsive frameworks. Back-end work involves integration with the database, PHP and user authentication. Core functionalities include:

- Student sign-up and profile maintenance

- Internship searching with filtering and keyword search
- Application loading status tracking
- Company posting of jobs and candidate administration
- Admin functionality and reporting modules

2.1.4 Testing

Testing this phase involves a number of levels of testing:

- Unit testing of individual modules such as login, job search, and posting functionality
- Integration testing to validate data passing across components
- User Acceptance Testing (UAT) involving actual users to receive feedback on usability, functionality, and performance
- Bug fixing and optimization based on test results

2.1.5 Deployment

After the system has passed all testing stages, it is deployed to a suitable web hosting environment. The platform is brought live for company and student users. Monitoring devices are installed in order to detect any performance issues, security issues, or usage patterns of users in the live stage.

2.1.6 Maintenance

Once it is deployed, we ensure that the system is constantly updated and upgraded on the basis of feedback and evolving requirements. Tasks include:

- Fixing bugs and updating features
- Monitoring system performance and security
- Providing technical support to users
- Scaling infrastructure as the user base grows

3.Requirements Identification

3.1 Functional and Non-functional requirements

3.1.1 Functional requirements

Job Seekers

User Registration and login

- Can sign up by required details.
- Can login by their email and password.
- Only logged user can browse the internships and apply for it.

Browse Internships

- They can search the internships by filtering the category (Remote , Onsite , hybrid) and job title that they want to work.

Profile Management

- Students can update their profile by adding their personal info, education, skills.

View Internship Details

- Can view the internship details such as company details, requirements for the job, deadline for the application.

Apply for Internships

- After viewing the details of the internship user can apply for the post.

Save Bookmarks

- Can bookmark the post so that they can access it easily .
- For the saved post they get a reminder for the deadline.

Track Application Status

- They can see whether they are short-listed/selected /rejected.

Notification Alert

- Users are notified through system for their further clarification about interview.

Company

Company Registration and login

- Can sign up by providing required details.
- Companies can login by their email and password.
- Only logged user can post internships and view the applicants profile.

Post Internships

- Companies can post internships with the relevant details .

Company Profile Management

- Companies can maintain a profile to publish their brand.

Manage Postings

- Can edit remove internship posts that they have posted.

Receive Applications

- Receive applications for their posted internships and applicants' profile can be viewed.

Update Application Status

- Update the application status (Short-listed/selected/rejected).

Admin panel

Manage users

- View users, remove users permanently who violate the platform's terms and conditions.

Track Activities

- Track the number of users, applications.

Content Management

- Manage the page contents (privacy policy and other contents related to the page).

3.1.2 Non-Functional Requirements

1.Performance:

React.js is used for the frontend to ensure a fast, responsive, and interactive user interface. It enables efficient rendering of components, smooth navigation, and a seamless user experience across devices.

2.Security:

- Authentication & Authorization: User authentication must be secure, integrating MySQL for login.
- User passwords are converted to hash-codes using bcrypt hashing -function algorithm before storing in the database.
- PHP is used as the backend server language to handle business logic, form processing, and secure communication between the frontend and the database.

3. Usability:

- **User-Friendly Interface:** The system should have an intuitive UI to ensure ease of use for both students and employers.
- **Mobile Responsiveness:** The platform must be accessible from both desktop and mobile devices.
- **Accessibility:** The system should comply with accessibility standards to support all users.

4. Scalability:

- The system should be scalable to accommodate future growth and increasing demand.

3.2. System requirements

3.2.1 Software Requirements

Frontend Development:

- **React.js:** Used to build a dynamic, modular, and responsive front-end interface.

Backend Development:

- **PHP:** Handles backend operations such as API creation, form processing, authentication, and database interaction
- **MySQL:** Stores and manages data such as user registrations, login credentials, and internship listings..

Version Control and Collaboration:

- **GitHub:** For efficient source code management, version tracking, and helps to work collaboratively.

3.2.2 Hardware Requirements

For Development:

- Processor: Intel Core i5 or AMD Ryzen 5 (or higher) for efficient processing.
- Memory (RAM): Minimum of 8 GB to handle development tools and testing environments.
- Storage: 256 GB SSD for fast data access and storing large project files.
- Graphics (Optional for AI/ML Tasks): Dedicated GPU (e.g., NVIDIA RTX 2060 or higher) for AI model training and rendering complex visualizations.

For End-Users:

- Operating System: Windows 10 or later, macOS, Linux, Android or IOS.
- Processor: Minimum Dual-core (Intel i3 or equivalent) for basic operations.
- Memory: At least 4 GB RAM for smooth user experience.
- Storage: 256 GB SSD for faster application load times.
- Display: Minimum 1080p resolution for optimal interface visibility.

3.3 User Roles

- Admin panel: Full access to manage users , internship listings and system settings.
Can manage users.
- Company : Can post internships and manage applications.
- Job seekers: Can create profile, upload resume, browse internships and apply for it.
- Guest User: Can view only the advertisement page, they have to register to browse the internships and apply for it.

4. Project Plan (Gantt chart)

Table 1: Gantt Chart

Task	Week														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Identify Topic and Gathering Requirements															
Requirements Analysis & specification															
User Interfaces, Database design															
Implementation and unit Testing															
Integration and System Testing															
Operation and Maintenance															
Documentation															

5.References

- [1] LinkedIn. 2025. *LinkedIn Jobs: Intern Jobs*. Retrieved March 19, 2025 from <https://www.linkedin.com/jobs/intern-jobs/?originalSubdomain=lk>
- [2] JobDaddy.lk. 2025. IT Internship Vacancies in Sri Lanka. Retrieved May 31, 2025 from <https://jobdaddy.lk/it-internship-vacancies-in-sri-lanka>
- [3] Topjobs.lk. 2025. *Topjobs - Sri Lanka Job Network - Jobs/Vacancies, Careers and Employment*. Retrieved March 19, 2025 from <https://www.topjobs.lk/applicant/vacancybyfunctionalarea.jsp?FA=HNS>
- [4] Bdtask. 2025. *Waterfall Model in Software Engineering*. Retrieved March 21, 2025, from <https://www.bdtask.com/blog/waterfall-model-in-software-engineering>

6. Appendixes

• Use Case Diagram

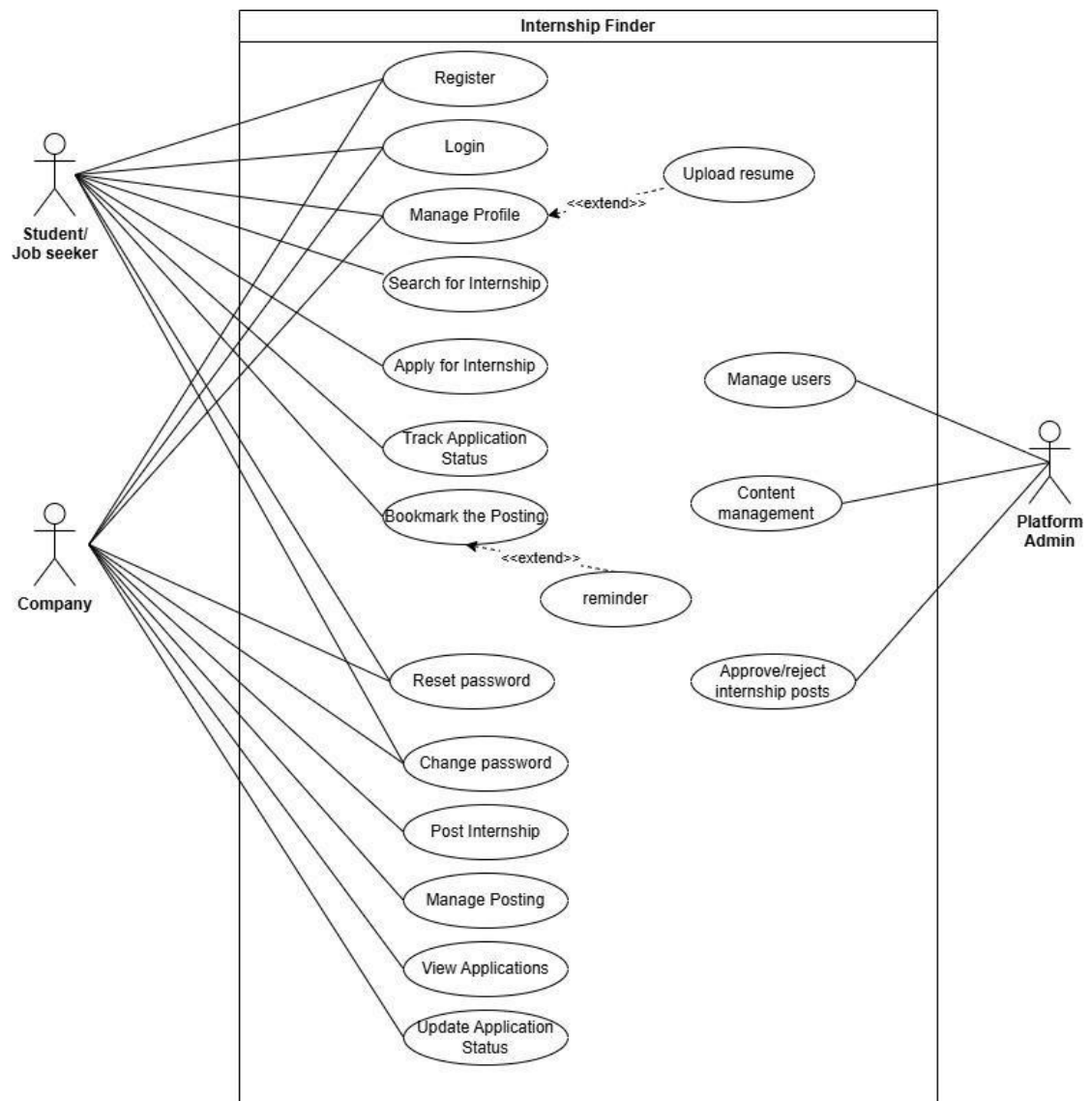


Figure 2: Use Case