

Introduction

This report explains the process behind designing and building a web-based application focused on internship management and student-company interactions. The main purpose of this platform is to simplify how students search and apply for internships, while also helping companies easily manage the listings and applications they receive.

To keep everything clear and organized, the application is split into two different sections one for students and one for companies. Each section was designed to serve its unique set of users with features tailored to what they need.

Problem Statement

Finding internships can be a frustrating and time-consuming process for many university students. Most of the time, students rely on scattered online listings, or outdated platforms that don't really cater to their specific needs. On the other hand, companies often receive unorganized applications or struggle to keep track of who applied and when making the whole process inefficient for both sides.

To address this issue, our group developed PEAR Internships, a web application designed to create a smoother experience for students looking for internships and companies offering them. The goal was to build a space where both users can interact through a system that's easy to use, well-organized, and responsive.

User Roles and Functionalities

Company User

Once companies log in, they can access several features, including:

- **Internship Management:** This allows companies to create, update, or remove internship listings. Fields include job title, description, duration, location, category, payment and fulltime/parttime.
- **Application Review:** Companies can see a list of all students who applied to their internships. They can then view resumes and update each student's application status as either Shortlisted, Accepted, or Rejected.
- **Profile Management:** Companies have the option to edit their profile details, such as company name, contact info and address.

Student User

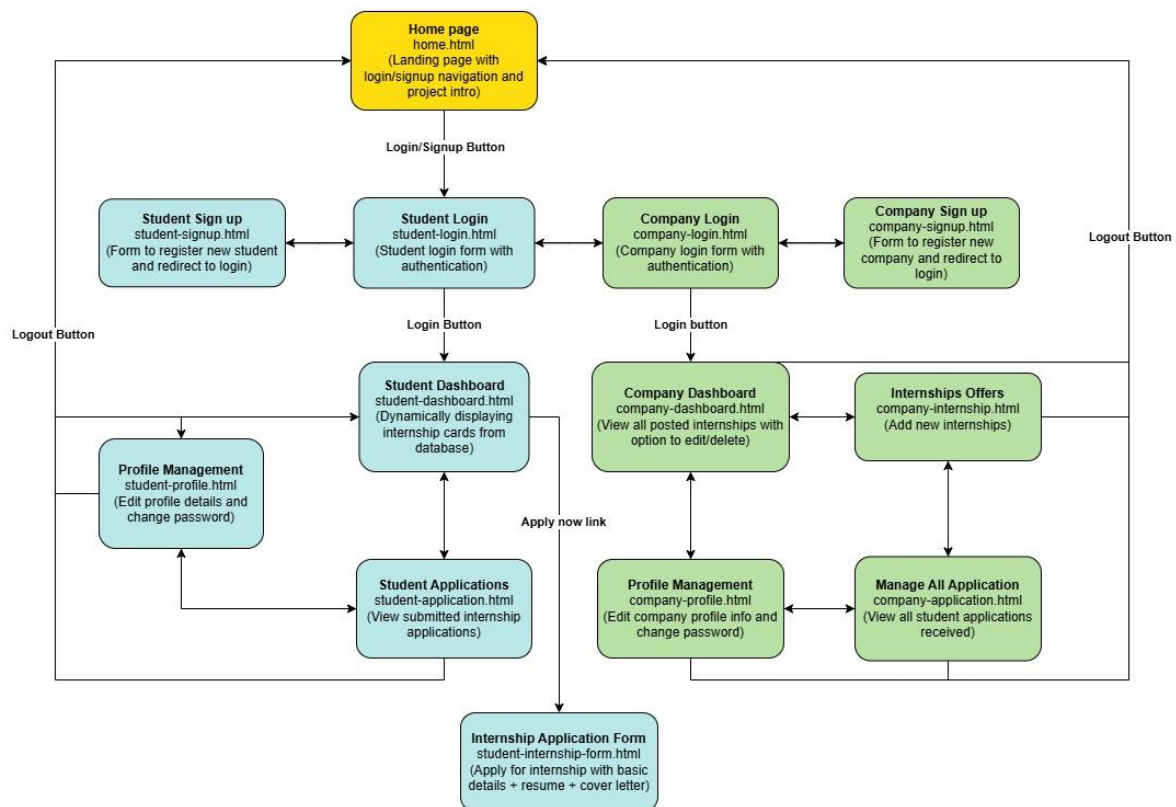
Students also have access to several important features:

- **Internship Browsing:** They can search through available internships using a search bar or filters like duration, location, category, payment and fulltime/parttime.
- **Internship Application:** Once a student finds an internship they like, they can apply by filling out a form and uploading their resume.

- **Profile Management:** Students can view and update their personal information (like email, phone, or DOB) whenever they need to.
- **Application Tracking:** This feature helps students track the internships they've applied to and check the current status (Pending, Shortlisted, etc.).

These functionalities ensure that both users; companies and students have smooth, organized, and user-friendly experiences tailored to their needs.

Primary Structure of the Website



Technical Specifications

To build this full-stack web application, we used a combination of front-end and back-end technologies that work together to provide a responsive and dynamic experience.:

a. Frontend:

- **HTML:** Used to create the basic structure and content of each page for both the student and company sections.
- **CSS:** Responsible for the visual styling of the pages including colors, layout, and responsiveness on different screen sizes.

- **JavaScript:** Adds interactivity on the client side, such as form validations and dynamic content changes.

b. **Backend:**

- **Node.js:** The core server environment that runs the backend and handles all the HTTP requests from users.
- **Express.js :** A lightweight Node.js framework that we used for creating API routes and organizing backend logic.
- **MySQL :** The database that stores all our essential data student and company information, internship listings, and application records.

Design and Implementation

Company site

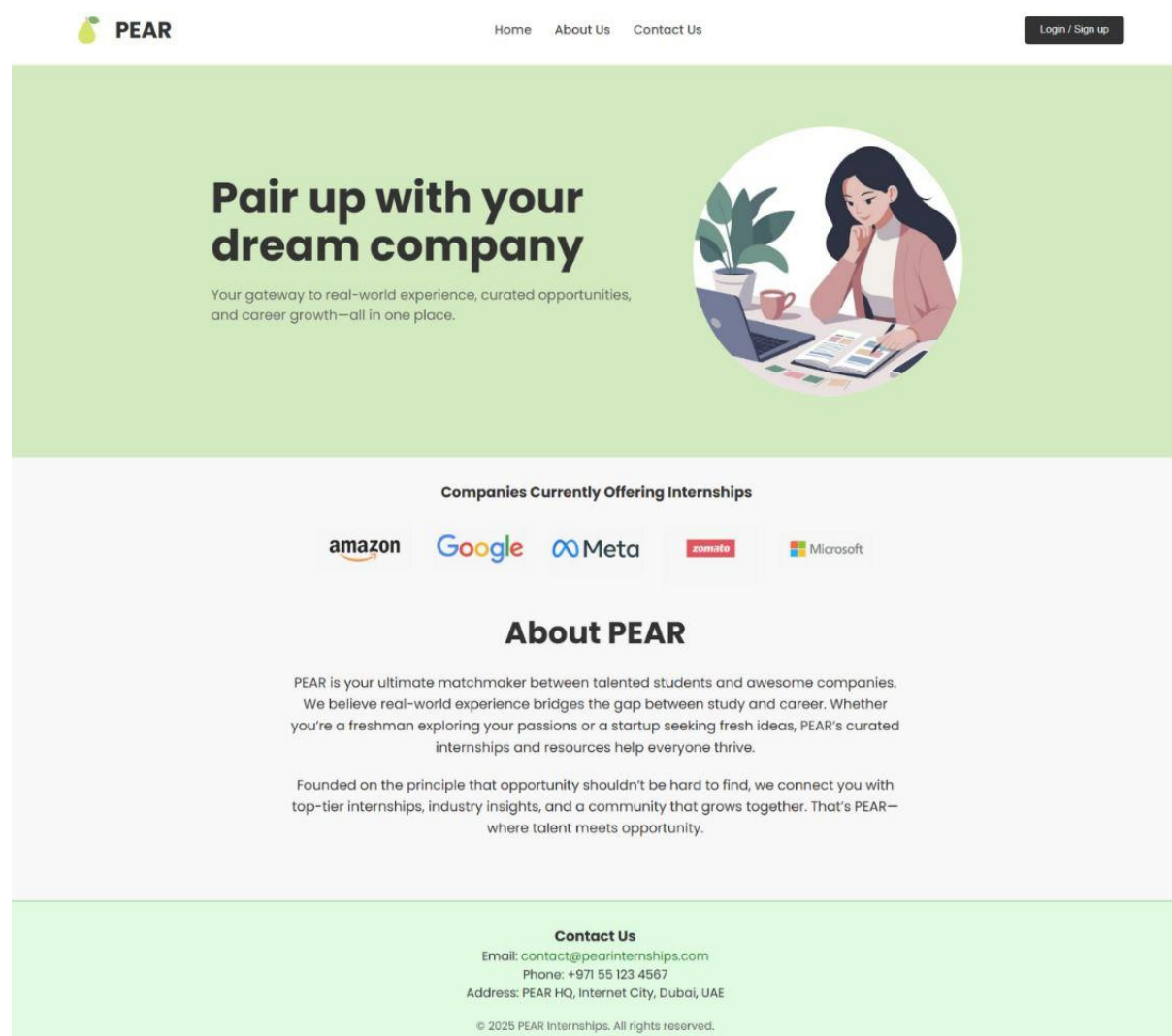
- **Home Page:** The homepage is simple and contains navigation links to Home, About Us, Login, and Signup. It acts as the entry point for company users.
- **User Authentication:**
 - **Company Sign-up Page:** A form allows companies to register by filling in fields like first name, last name, company name, industry, email, phone number, and password. The form data is sent using a POST request and stored securely in the MySQL database using Node.js.
 - **Company Login Page:** Once companies log in using their credentials, they are authenticated against the database. On success, they are taken to their dashboard.
- **Company Dashboard:** After login, companies are shown a dashboard where they can add internships, see who has applied, update their profile, and more. The dashboard uses Node.js to fetch and display data from the database.
- **Internship Posting Page:** This page includes a form with fields like title, location, salary, skills required, duration, and deadline. When submitted, the data is saved to the internships table in the database.
- **View Applications Page:** This allows companies to view all student applications submitted to their internships. Each entry shows the student's details and resume, and companies can change the status of each application.
- **Company Profile Page:** Companies can view and edit their profile details. Changes are saved using POST requests and SQL UPDATE queries.

Student site

- **Home Page:** Students share the same homepage layout as companies but have access to their specific login, signup, and internship browsing options. The design is clean and easy to navigate.
- **User Authentication:**
 - **Student Sign-up Page:** The registration form includes first name, last name, email, phone number, date of birth, and password. The form data is stored in MySQL when submitted.
 - **Student Login Page:** Credentials are verified by checking the data in the students table. If correct, students are logged in and redirected to their dashboard.

- **Internship Browsing Page:** Internships posted by companies are pulled from the database and shown to students. Filters are available to sort internships by category, location, salary, etc. Each internship card contains an “Apply” button.
- **Internship Application Page:** Once a student clicks "Apply", they are shown a short form and a file upload option for their resume. This data is then saved in the applications table, and the file is handled using the Multer middleware in Node.js.
- **Student Profile Page:** This page shows the logged-in student's profile info, pulled directly from the database. Students can update their details as needed.
- **Application Tracker Page:** This page displays all the internships the student has applied for, along with their current status (e.g., Pending, Shortlisted, etc.). Data is fetched using Node.js and MySQL SELECT queries.

Webpages Design



StudentCompany

Welcome back!

Log In

Don't have an account? [Sign Up](#)

StudentCompany

Welcome back!

Log In

Don't have an account? [Sign Up](#)

StudentCompany

Create Company Account

Join us and hire the best talents!

Sign Up

Already a member? [Login now](#)

StudentCompany

Create Student Account

Join us and explore opportunities!

First Name

Last Name

Email Address

Phone Number

Major

University

dd/mm/yyyy

Password

Sign Up

Already a member? [Login now](#)

Dashboard

- Dashboard
- Internship Offers
- Manage All Applications
- Profile Management

Logout

Welcome to Your Dashboard!

Manage Existing Internship Offers								
Title	Description	Duration	Location	Category	Paid	Type	Actions	
Junior Tech intern	Join Apple as a Tech Junior Intern and work alongside world-class engineers to build innovative, user-focused technology that impacts millions—while sharpening your skills in coding, problem-solving, and real-world product development.	3	remote	tech	paid	fulltime	Edit	Delete
Data Analyst intern	As a Data Analyst Intern at Apple, dive into big data, uncover insights, and help shape smarter decisions through analytics, visualization, and real-world impact at a global scale.	5	onsite	tech	unpaid	parttime	Edit	Delete
Machine Learning intern	As an Intern at Apple, you'll contribute to cutting-edge projects in machine learning and artificial intelligence. Work with top-tier researchers and engineers to develop intelligent systems for real-world applications.	7	remote	ml	unpaid	parttime	Edit	Delete

Dashboard

Dashboard

Internship Offers

Manage All Applications

Profile Management

Logout

Create a New Internship Offer

Fill out the details

Internship Title

e.g. Software Engineering Intern

Description

Provide a detailed description of the internship, responsibilities, and requirements.

Duration (Months)

e.g. 3, 6

Location

Select location

Category

Select a category

Payment

Select payment status

Type

Select internship type

Create Offer

Dashboard

Dashboard

Internship Offers

Manage All Applications

Profile Management

Logout

Manage All Applications

Search by student name

Internship	Student	Email	Phone	Date	CV	Status	Update
Applications for: Junior Tech intern							
Junior Tech intern	ana	ll@gmail.com	0585885323	2025-06-22	Download CV	Pending	Change
Junior Tech intern	joslin jolly	jj@gmail.com	0505125646	2025-06-22	Download CV	Pending	Change
Junior Tech intern	Marwa Khot	marwakhot007@gmail.com	0585885323	2025-06-22	Download CV	Pending	Change
Applications for: Machine Learning Intern							
Machine Learning Intern	jake swan	ll@gmail.com	0585885323	2025-06-22	Download CV	Pending	Change
Machine Learning Intern	Marwa Khot	marwakhot007@gmail.com	0585885323	2025-06-22	Download CV	Pending	Change
Applications for: Data Analyst intern							
Data Analyst intern	Marwa Khot	marwakhot007@gmail.com	0585885323	2025-06-22	Download CV	Pending	Change

Dashboard

Dashboard

Internship Offers

Manage All Applications

Profile Management

Logout

Profile Management

Edit Company Profile

Company Name

Apple

Email Address

apple@gmail.com

Address

USA

Save Profile

Change Password

Current Password

New Password

Confirm New Password

Change Password

Dashboard

Dashboard

My Applications

Profile Management

Logout

Dashboard

Dashboard

My Applications

Profile Management

Logout

Dashboard

Dashboard

My Applications

Profile Management

Logout

Search internships...

Filter Internships Category

- ☐ Tech
- ☐ Marketing
- ☐ Finance
- ☐ Design
- ☐ Web Development
- ☐ Machine Learning

Location

- ☐ Remote
- ☐ On-site
- ☐ Hybrid

Paid

- ☐ Paid
- ☐ Unpaid

Type

- ☐ Full-time
- ☐ Part-time

Clear Filters

junior tech intern

join apple as a tech junior intern and work alongside world-class engineers to build innovative, user-focused technology that impacts millions—while sharpening your skills in coding, problem-solving, and real-world product development.

[Apply Now →](#)

data analyst intern

as a data analyst intern at apple, dive into big data, uncover insights, and help shape smarter decisions through analytics, visualization, and real-world impact at a global scale.

[Apply Now →](#)

machine learning intern

as an intern at apple, you'll contribute to cutting-edge projects in machine learning and artificial intelligence. work with top-tier researchers and engineers to develop intelligent systems for real-world applications.

[Apply Now →](#)

data science intern

as a data science intern at microsoft, you'll work with large datasets to derive actionable insights that support product development and business strategy.

[Apply Now →](#)

front-end web development intern

work with microsoft's web experience team to build sleek, responsive user interfaces across high-impact products.

[Apply Now →](#)

financial analyst intern

join amazon's dynamic finance team and gain hands-on experience in budgeting, forecasting, and financial planning.

[Apply Now →](#)

Profile Management

Search...

Edit Student Profile

Full Name

Marwa Khot

Email Address

marwakhot007@gmail.com

Phone Number

0585885324

Major

computer science

University

University of wollongong

Date of Birth

12 / 02 / 2007



Save Profile

Change Password

Current Password

New Password

Confirm New Password

Change Password

My Applications

Internship Title	Company	Status	Date Applied
Junior Tech intern	Apple	Pending	2025-06-22
Data Analyst intern	Apple	Pending	2025-06-22
Machine Learning Intern	Apple	Pending	2025-06-22
Financial Analyst Intern	amazon2	Pending	2025-06-22

Apply for an internship

Full Name:

Email:

Phone:

Upload your CV here:

Drag & Drop your files or [Browse](#)

Cover Letter (Optional):

Submit