SOFTWARE REQUIREMENT SPECIFICATION

Find Me Internship

Version 1.0

Shivam Patel (20CS057)
Hemil Patoliya (20CS063)
Kishan Prajapati (20CS065)
Pruthvi Raj (20CS068)

CSPIT CSE

NOVEMBER 7, 2022

A
Project Report
On
"MD Hostel"

Prepared by
Shivam Patel (20CS057)
Hemil Patoliya (20CS063)
Kishan Prajapati (20CS065)
Pruthvi Raj (20CS068)

Under the guidance of

Assistant Prof. Bela Shah

Submitted to

Charotar University of Science & Technology

Degree of Bachelor of Technology

in Computer Science & Engineering

CS348 : Software Group Project-III

Of 5th Semester of B.Tech

Submitted at

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Faculty of Technology & Engineering, CHARUSAT

Chandubhai S. Patel Institute of Technology

At: Changa, Dist: Anand – 388421

November 2022

DECLARATION BY THE CANDIDATE

We hereby declare that the project report entitled "**Find me Internship**" submitted by us to Chandubhai S. Patel Institute of Technology, Changa in partial fulfilment of the requirements for the award of the degree of **B.Tech Computer Science & Engineering**, from Department of Computer Science & Engineering, CSPIT, FTE, is a record of bonafideCS348 Software group Project-III carried out by me under the guidance of **Assistant Prof. Bela Shah**. I further declare that the work carried out and documented in this project report hasnot been submitted anywhere else either in part or in full and it is the original work, for theaward of any other degree or diploma in this institute or any other institute or university.

Signature of the candidates
(Shivam Patel – 20CS057)
(Hemil Patoliya – 20CS063)
(Kishan Prajapati – 20CS065)
(Pruthvi Raj – 20CS068)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Assistant .Prof. Bela Shah
Assistant Professor
Department of Computer Science & Engineering,
Chandubhai S Patel Institute of Technology (CSPIT)
Faculty of Technology (FTE)
Charotar University of Science and Technology (CHARUSAT) - Changa

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

CERTIFICATE

This is to certify that the report entitled "**Find Me Internship**" is a bonafied work carried out by **Shivam Patel (20CS057)** under the guidance and supervision of **Assistant Prof. Bela Shah** for the subject **Software Group Project - III (CS348)** of 5th Semester of Bachelor of Technology in **Computer Science & Engineering** at Faculty of Technology & Engineering (C.S.P.I.T.) – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred to the examiner.

Under the supervision of,

Ast .Prof. Bela Shah
Assistant Professor
Dept. of Computer Science & Engineering
C.S.P.I.T., CHARUSAT-Changa.

Dr. Amit Thakkar
Head CSE,
Dept. of Computer Science & Engineering
C.S.P.I.T., CHARUSAT-Changa.

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

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Assistant Professor
Dept. of Computer Science & Engineering
C.S.P.I.T., CHARUSAT-Changa.

Dr. Amit Thakkar
Head CSE,
Dept. of Computer Science & Engineering
C.S.P.I.T., CHARUSAT-Changa.

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This is to certify that the report entitled "**Find Me Internship**" is a bonafied work carried out by **Kishan Prajapati (20CS065)** under the guidance and supervision of **Assistant Prof. Bela Shah** for the subject **Software Group Project - III (CS348)** of 5th Semester of Bachelor of Technology in **Computer Science & Engineering** at Faculty of Technology & Engineering (C.S.P.I.T.) – CHARUSAT, Gujarat.

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Under the supervision of,

Ast .Prof. Bela Shah
Assistant Professor
Dept. of Computer Science & Engineering
C.S.P.I.T., CHARUSAT-Changa.

Dr. Amit Thakkar
Head CSE,
Dept. of Computer Science & Engineering
C.S.P.I.T., CHARUSAT-Changa.

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CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

CERTIFICATE

This is to certify that the report entitled "**Find Me Internship**" is a bonafied work carried out by **Pruthvi Raj (20CS068)** under the guidance and supervision of **Assistant Prof. Bela Shah** for the subject **Software Group Project - III (CS348)** of 5th Semester of Bachelor of Technology in **Computer Science & Engineering** at Faculty of Technology & Engineering (C.S.P.I.T.) – CHARUSAT, Gujarat.

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Under the supervision of,

Ast .Prof. Bela Shah
Assistant Professor
Dept. of Computer Science & Engineering
C.S.P.I.T., CHARUSAT-Changa.

Dr. Amit Thakkar
Head CSE,
Dept. of Computer Science & Engineering
C.S.P.I.T., CHARUSAT-Changa.

Abstract

The proposed project is a website developed to help student find the internship. The system will serve as a platform for students to access the list of available companies offered by college which provide internship to students and apply for the company which meets their requirement by looking over the reviews given by students. Hence this projectoffers an effective solution to finding an internship, making the hectic and time consuming process easier for students.

Acknowledgement

We are privileged to have this opportunity to express our gratitude and acknowledgeeveryone's never ending support and valuable contributions for our project.

Prima facie, we would like to express my sincere thanks and gratitude to my Lab in charge Assistant Prof. Bela Shah , for the continuous support of our project study andrelated research, for his patience, motivation, and immense knowledge.

Our sincere thanks also goes to Principal Dr. Y.P.Kosta and HOD Sir Dr. Amit Thakkar who provided us an opportunity to work on this project and to be able to present the same.

Last but not the least, I would like to thank my friends and family for supporting us throughout this project and for always being a constant source of inspiration. We also place our sense of gratitude to everyone who supported us while development of this project and lent their hand in this project.

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Chapter – 1 Introduction

1. Introduction

1.1. Project Overview

Find me Internship is a website developed for CSE students to help them find the internship. The system will serve as a platform for students to access the list of available companies which provide internship to students and apply for the company which meets their requirement.

1.2. Purpose

The purpose of this project is to reduce the confusion of choosing an ideal internship for students by providing them all the necessary details of the company and their reviews.

Problems currently faced by students while looking for internship:

- Finding list of available companies for internship.
- Checking company profile, their requirements, location through different sources.
- Not many reviews available of company.
- Procedure to do internship in company apart from mentioned in university company list.

1.3. Scope

- The scope of this project is developing a system which will help students find an ideal internship based on their interest, location, technology, reviews etc.
- Help admin add company details easily.

1.4. Objective

To provide students a system which can help them find desired internship.

1.5. Tools and Technology Review

The tools and technologies used for developing this project are given as follows :

- Tools**:** VS code, Dbeaver
- Technology**:** React JS, Node JS, Express JS, Mysql

Chapter - 2 Project management

2. Project Management

2.1. Project Planning

2.1.1. Project Development Approach and Justification

The development approach used over here is incremental model. Here are the reason we choose agile approach as perfect fit for our project :

- Incremental model is preferred because of the way it divides the software development into sub increments and each sub increment is further developed by completing all the phases of SDLC successfully.
- It is easier to test and debug during a smaller iteration. In this model customer can respond to each built. Lowers initial delivery cost. Easier to manage risk because risky pieces are identified and handled during it'd iteration.
- Requirements of the system are clearly understood.
- It is flexible and less expensive to change requirements and scope.
- Throughout the development stages changes can be done

2.1.2. Project Effort and Time, Cost Estimation

- **Calculations**

PCA = 0.65 + 0.01 * 28 = 0.93
Adjustment Function Point = 0.93 * 65 = 60.45

Assuming that the 1 FP is equal to 100 lines of code in Javascript then, LOC (Lines of code) = 60 * 110 = 6600
Therefore, KLOC = 6600

Effort of the project is E = a * (KLOC) ^ b

For the Organic project the value of a is 3.2 and value of b is 1.05.

Therefore value of effort is = 3.2 * (6.600) ^ 1.05 = 3.2 * 7.2530 = 23.21 = 23 PM Hence, Effort = 23 Person Month

Duration of the project is M = a * (E) ^ b
a = 2.5, b = 0.38 for project in Organic Mode.
Hence, M = 2.5 * (23) ^ 0.38 = 8 Months
Suppose the average monthly salary of each software developer is Rs. 40,000. Total Cost of the project is = Rs. 40,000 * 4 People * 8 Months = Rs. 12,80,000.

2.1.3. Roles and Responsibilities

Member Name	**Responsibility**	**E-Mail**
Shivam Patel	Database, Backend	20cs057@charusat.edu.in
Kishan Prajapati	UI Designer, Front End	20cs065@charusat.edu.in
Hemil Patoliya	Backend	20cs063@charusat.edu.in
Pruthvi Raj	Project Leader Front End	20cs068@charusat.edu.in

2.2. Resource allocation

Resouce N	Type	Initials	Groups	Max	Std Rate	Ovt. Rate	Cost/Use	Accure	Base
Shivam Pa	Work	S		100%	1000/hr	0.00/hr	0	Prorated	Standard
Hemil Pat	Work	H		100%	1000/hr	0.00/hr	0	Prorated	Standard
Kishan Pra	Work	K		100%	1000/hr	0.00/hr	0	Prorated	Standard
Pruthvi Ra	Work	P		100%	1000/hr	0.00/hr	0	Prorated	Standard

Fig-2.1 Resource allocation

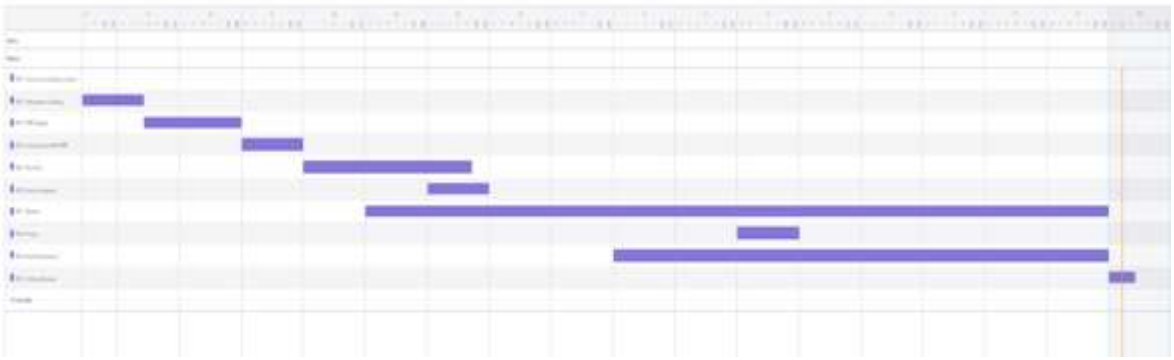


Fig-2.2 Gantt Chart

CHAPTER -3 System Requirement Study

3. System Requirement Study

3.1. User Characteristics

There are mainly two types of users using this system currently:

- Students: Access list of companies, view profile, add reviews, ask for company approval.
- Admin: Manage company profile and list.

3.2. Hardware and Software Requirement

3.2.1. Software Requirements

- OS :- Windows or IOS
- Ram :- 2GB or UP
- Memory :- 500MB

3.2.2. Hardware Requirements

- The user will require a Smartphone with Android or iOS operating system or PC with Web browser.
- The phone should have minimum 2GB Ram Or PC with Web-browser
- Connectivity to internet.

3.3. Assumptions and Dependencies

3.3.1. Assumptions

- The users have sufficient knowledge of smartphones, Computer.
- Smart phone or computer should have Internet connection capabilities.
- The users know the English language, as the user interface will be provided in English.

3.3.2. Dependencies

The information of all the users must be stored in a database that is accessible by the Online System.

- The company information security system must be compatible with the Internet applications.
- The Online System is connected to the computer and is running all 24 hours a day.

Chapter – 4 System Analysis

4. System Analysis

4.1. Study of Current System.

Currently there are few websites which help students find the internship like internshala and during looking over them we found few of the necessary features like registration, login, company list and profile.

4.2. Problems and Weakness in Current System

The current system is very basic version of the idea of implementation which is going to be implemented in a better way and efficient manner of representation.
The current system lacks the review section which is our core priority of this project. The reviews added by students help others to understand the working environment of company during internship.

4.2.1. Requirement of New System Functional Requirement

- **Student Side Functional Requirement**

  - Student Registration and login
    Input: Enter name, username, email, password.
    Output: Redirect to student dashboard
    Process: The user will be registered to system once he fills up all the required fields with valid input. The error message will be displayed in case of incorrect input

  - System dashboard
    Input: Login into system
    Output: List of companies with company details and rating.
    Process: The companies added by admin will be displayed here along with few details like company name and location.

  - Company profile
    Input: Click on company card
    Output: Complete detailed information of company.
    Process: All the data added by admin of company will be displayed here.

  - Add review
    Input: Click on button to add review in company profile
    Output: Review added.
    Process: The review added by student will be added to database and viewed in review list.

  - View review
    Input: Click on view review button

Output: All the students reviews will be displayed for the particular company.
Process: The reviews and rating added by students will be fetched.

- **Manager Side Functional Requirement**

  - Admin login
    Input: Enter username and password
    Output: Admin logged in
    Process: The admin will be logged in into the system by entering correct credentials and Admin dashboard will be visible

  - Add company
    Input: Enter company details.
    Output: Company will be added to company list.
    Process: The admin will have to enter all the details regarding company in a form which will add the company at the user side in company list and profile.

  - Company Approval
    Input: Accept/Reject company approval.
    Output: Company added to company list if approved.
    Process: Company approved or rejected mail.

  - Manage Company details
    Input: Update or remove company details
    Output: Company data updated in company list and profile.
    Process: The company data is updated in database.

4.2.2. Non-function Requirement

- Black, yellow and grey color palette
- Mobile friendly
- Easy to understand system flow and navigation
- Reliable and secure system

4.3. Feasibility Study

4.3.1. Operational Feasibility

The project has been developed in such a way that it becomes very easy even for a person with little computer knowledge to operate it. This software is very user friendly and does not require any technical person to

operate .Thus the project is even operationally feasible.

4.3.2. Technical Feasibility

The technical feasibility in the proposed system deals with the technology used in the system.It deals with the hardware and software used in the system whether they are of latest technology or not and if it happens that after the system is prepared, a new version of the technology is released which is ued in this system then the system can be upgraded to latest technology version. This system use React JS, Express JS, Node JS and MySql for database. Thus Find Me Internhsip system is technically feasible.

4.3.3. Economic Feasibility

Economic analysis is the most frequently used method for evaluating the effectiveness of a new system. More commonly known as cost/benefit analysis. React JS, Node JS, Dbeaver and MySQL database are easily available on internet free of cost.

4.4. Activity/ Process in New System

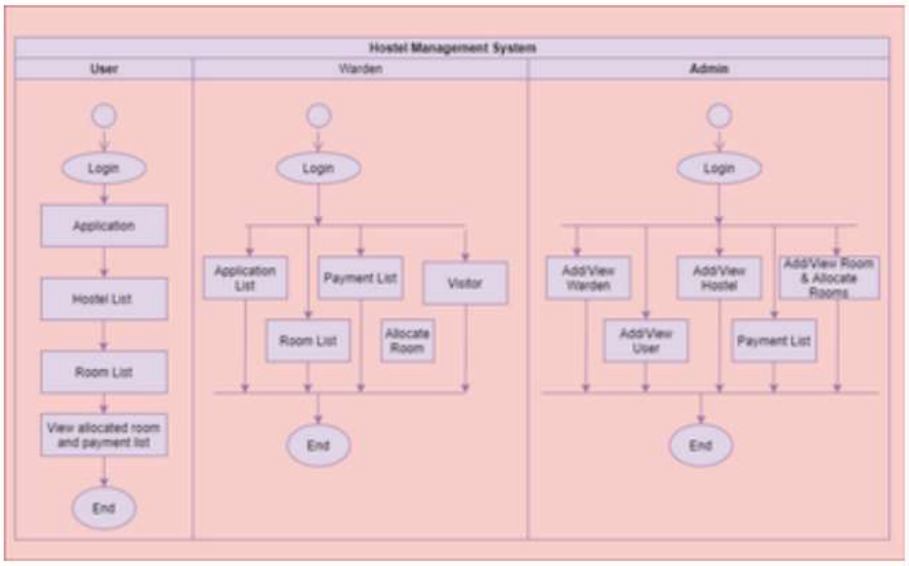


Fig-4.4.1

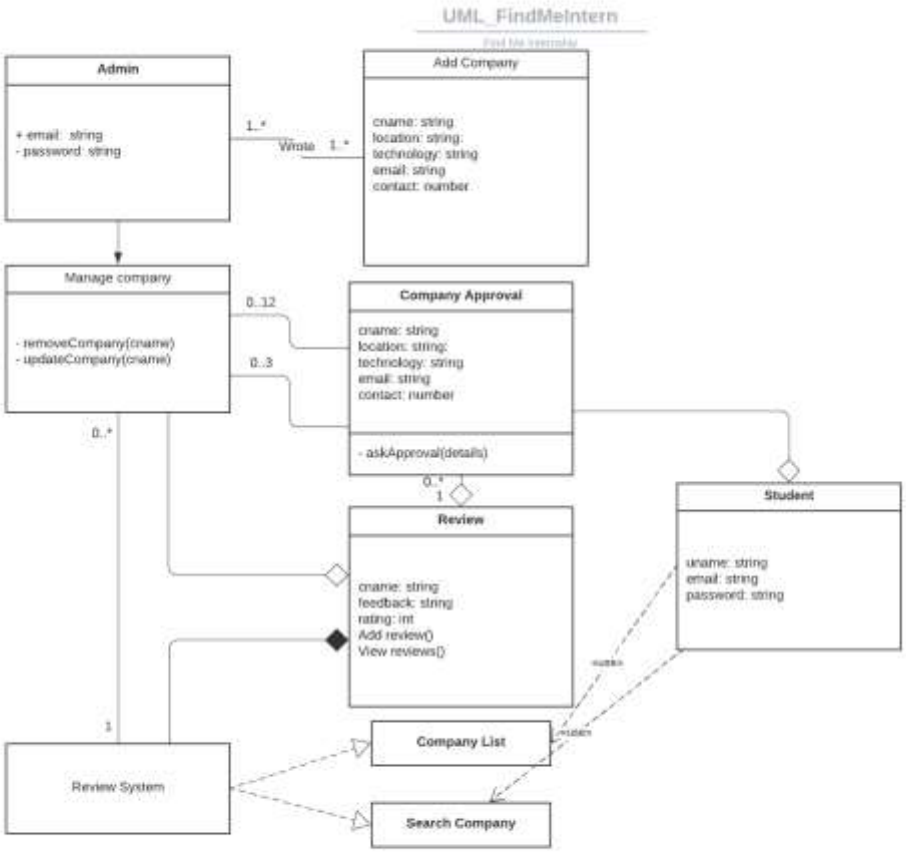
4.5. Features of New System

The follow features are implemented in our system:

- Login and Registration for Admin and Student
- Company list
- Detailed company profile
- Add review and rating
- View review
- Add company

- Remove company
- Update company details
- Add admin for super admin

4.6. Class Diagram



4.7. Use case Diagram

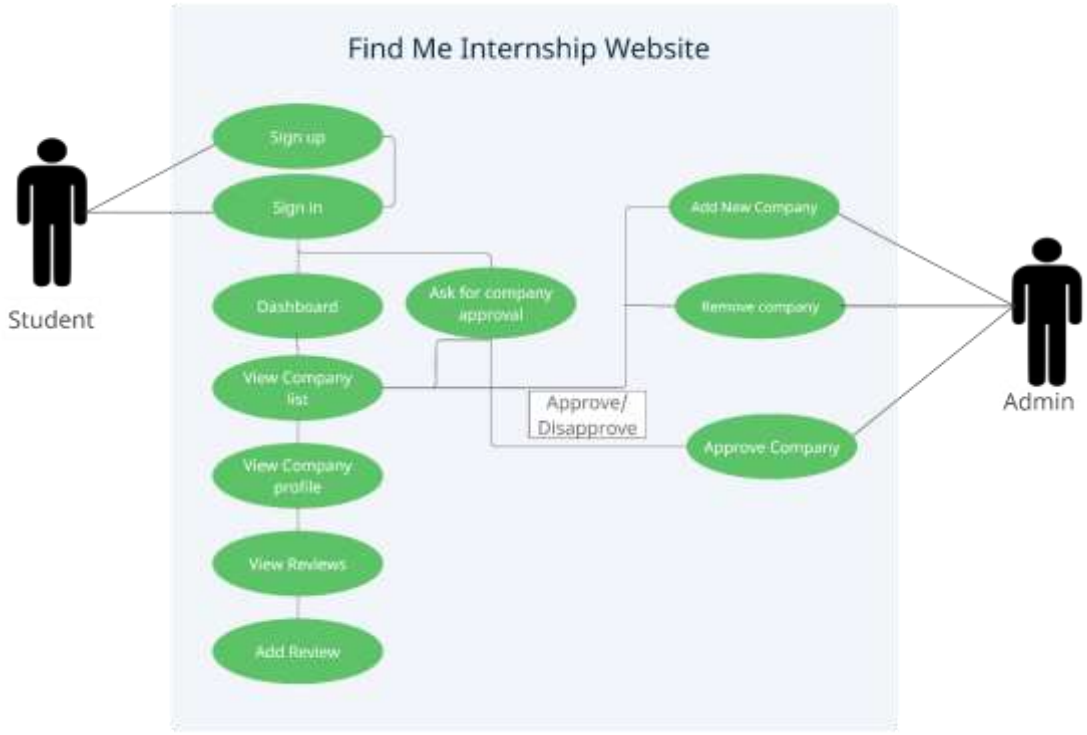
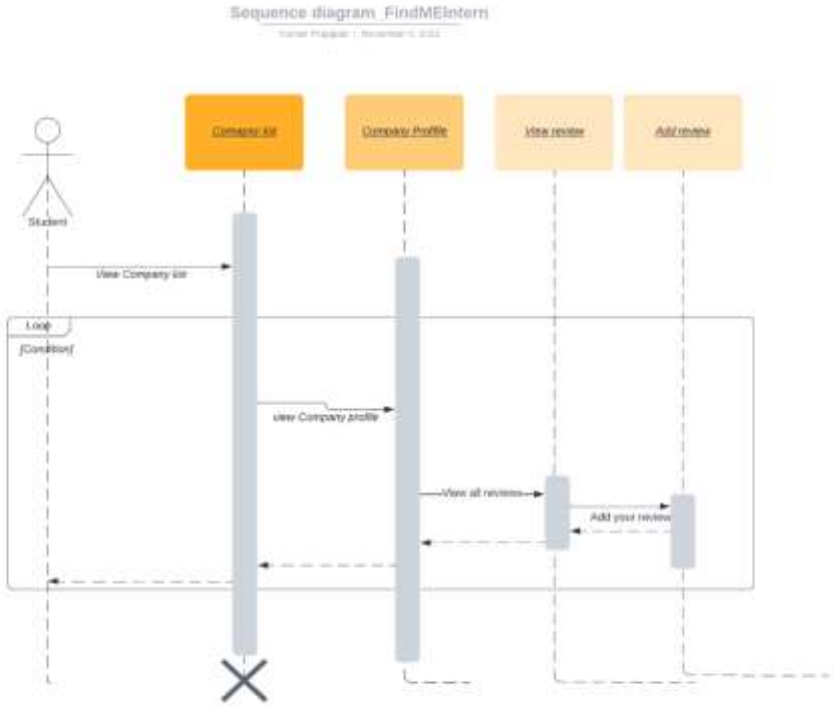
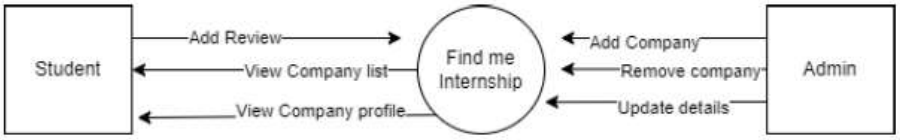


Fig-4.7.1

4.8. Sequence Diagram



4.9. Data Flow Diagrams (DFD)



DFD level 0

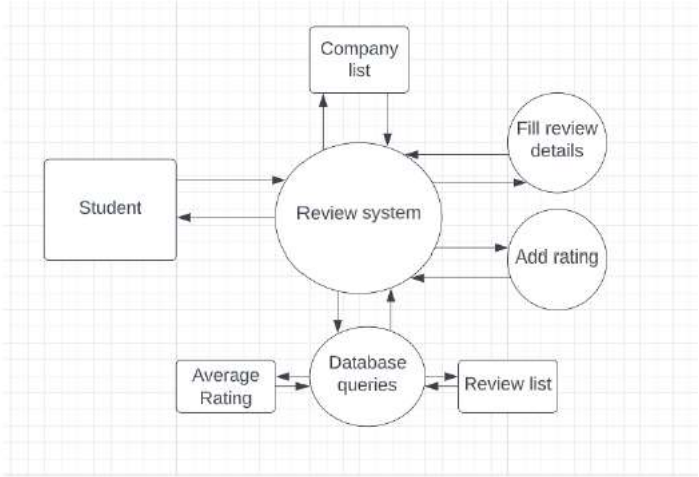


Fig-4.9.1

4.10. Activity Diagram

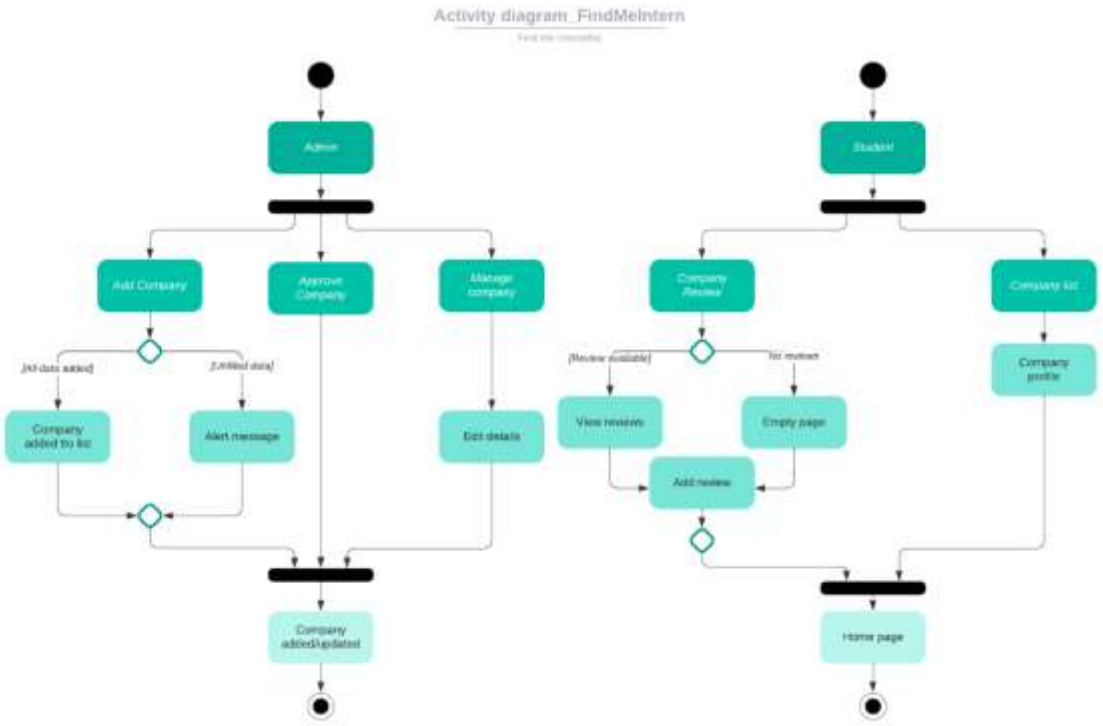


Fig 4.10

4.10.1. List of Main Modules of System

The list of main Modules of System are given as follows :

- Login and Registration
- Company list and profile
- Review module

Chapter-5 System Design

5. System Design

Data dictionary

Field name	Data type	Description	Char length	Required	Accept null
Username	varchar	Username of person	30	Y	N
Email	varchar	user email ID	30	Y	N
Password	varchar	user pass	20	Y	N
Company name	varchar	company name	100	Y	N
Location	varchar	location of company	100	Y	N
Technology	varchar	technology offered	100	Y	N
Rating	int	ratings given by students	5	Y	N
Review	varchar	revuew submitted by studen	500	Y	N
Description	varchar	description of company	500	Y	N
Type	int/varchar	type of internship	50	Y	N

5.1. Database design

Block_id	int
Block_name	varchar
Gender	varchar
Description	text
Status	varchar

Fig 5.1.1 Room Table

Allotment_id	int
Block_id	int
Course_id	int
Status	varchar

Fig 5.1.2 Room Allotment

Emp_id	int
Block_id	int
Login_id	varchar
Password	varchar
Emp_type	varchar
Emp_name	varchar
Gender	varchar
DOB	date
DOJ	date

Fig 5.1.3 Student Info

Fee_str_id	int
Course_id	int
Fee_type	varchar
Cost	float

Fig 5.1.4 Fees Module

Chapter-6 Implementation Planning

6. Implementation Planning

6.1. Implementation Environment

Implementation is the stage in the project where the theoretical design is turned into a working system and is giving confidence on the new system for the users that it will work efficiently and effectively. It involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the changeover, an evaluation of change over methods. Apart from planning major task of preparing the implementation are education and training of users.

6.2. Security Features

If we explore the side of security features , then , in network backup system no additional resources are needed. Implementation is the final and the most important phase. The most critical stage in achieving a successful new system is giving the users confidence that the new system will work and be effective. The system can be implemented only after thorough testing is done and if it is found to be working according to the specification. This method also offers the greatest security since the old system can take over if the errors are found or inability to handle certain type of transactions while using the new system

6.3. Coding Standards

- Proper and consistent indentation is important in producing easy to read and maintainable programs. Indentation should be used to:
- Emphasize the body of a control statement such as a loop or a select statement
- Emphasize the body of a conditional statement
- Emphasize a new scope block
- Variable shall have mnemonic or meaningful names that convey to a casual observer, the intent of its use. Variables shall be initialized prior to its first use.

Chapter-7 Testing

7. Testing

7.1. System Testing

As the part of system testing we execute the program with the intent of finding errors and missing operations and also a complete verification to determine whether the objectives are met and the user requirements are satisfied. The ultimate aim is quality assurance. Tests are carried out and the results are compared with the expected document. In the case of erroneous results, debugging is done. Using detailed testing strategies a test plan is carried out on each module. The various tests performed are unit testing, integration testing and user acceptance testing.

7.1.1. Unit Testing

The software units in the system are modules and routines that are assembled and integrated to perform a specific function. As a part of unit testing we executed the program for individual modules independently. This enables, to detect errors in coding and logic that are contained within each of the three module. This testing includes entering data that is filling forms and ascertaining if the value matches to the type and entered into the database. The various controls are tested to ensure that each performs its

action as required.

7.1.2. Integration Testing

Data can be lost across any interface, one module can have an adverse effect on another, sub functions when combined, may not produce the desired major functions. Integration testing is a systematic testing to discover errors associated within the interface. The objective is to take unit tested modules and build a program structure. All the modules are combined and tested as a whole. Here the registration and login module, review module and company module options are integrated and tested. This testing provides the assurance that the application is well integrated functional.

7.1.3. User Accepting Testing

User acceptance of a system key factor for the success of any system. The system is thoroughly tested by users who are going to use this system and the issues faced have been solved in the process.

7.2. Testing Table

Black Box Testing

Project Name: MD Hostel
Module Name: Login
Date of Creation: 12/10/2022

Test Case No.	Test Scenario	Pre-Condition	Test Steps	Test Case	Test Data	Expected Result	Actual Result	Post Condition	Status
1	Enter the First Name, Last Name, Email, Password, City, Phone No., Category	User must be accessing the SignUp Page	Enter the required data	Value entered is valid	Enter all required values for test cases	Display the successfully registered model	Display the successfully registered model	Redirect to the login module	PASS
				Value entered is not valid		Display the error messages according to the field	Display the error messages according to the field	Reload the registration module	PASS
				Value not entered		Display the error messages according to the empty field	Display the error messages according to the empty field	Reload the registration module	PASS

Project Name: MD Hostel
Module Name: Registration
Date of Creation: 16/11/2022

Test Case No.	Test Scenario	Pre-Condition	Test Steps	Test Case	Test Data	Expected Result	Actual Result	Post Condition	Status
1	Enter the Email and Password	User must be pre-registered	Enter the required data	Value entered is valid	Enter all required values for test cases	Display the Dashboard	Display the Dashboard	Redirect to the Dashboard	PASS
				Value entered is not valid		Display the error messages according to the field	Display the error messages according to the field	Reload the login module	PASS
				Value not entered		Display the error messages according to the empty field	Display the error messages according to the empty field	Reload the login module	PASS
2	Forget Password	User must be pre-registered	Enter the registered phone number	Enter the registered phone number	Enter all required values for test cases	Display the model to enter new password	Display the model to enter new password	Display the successfully updated password	PASS
				Enter the invalid phone number		Display the error message to enter valid phone number	Display the error message to enter valid phone number	Reload the login module	PASS

Chapter – 8 Conclusion

Find me Internship is a website which will help students find the internship based on various factors like company's location, technology etc by providing them the feature to add a review or view students reviews regarding their internship in a particular company. The website will also serve as a platform for admin to manage the company detailed information and help him to keep track of company.

Chapter - 9 Limitations and Future Enhancement

The system has following Limitations

- Company approval and NOC section is in progress.
- Alert message action are yet to be implemented on some section of website.
- Server connection loss is faced during some events.

Future Enhancements in the system

- Stronger database server connectivity.
- Better UI design.