

DevSearch

A PROJECT REPORT

Submitted by

Malaviya Kamal Sureshbhai

210210107506

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

In

Computer Engineering

GOVERNMENT ENGINEERING COLLEGE,

BHAVNAGAR



Gujarat Technological University, Ahmedabad

April, 2024



Government Engineering College, Bhavnagar

**Nr. Sir BPTI Campus, Vidhyanagar, Bhavnagar-364002,
Gujarat ,India**

CERTIFICATE

This is to certify that project report submitted along with the project entitled **“DevSearch”** has been carried out by **Malaviya Kamal Sureshbhai (210210107506)** under my guidance in partial fulfilment for the degree of Bachelor of Engineering in **Computer Engineering**, 8th Semester of Gujarat Technological University, Ahmedabad during the academic year 2023-2024.

Date of Submission:

Name of Internal Guide:
Prof. K. R. Makvana
(Computer Department)
GEC, Bhavnagar

Head of Department:
Prof. K. P. Kandoriya
(Computer Department)
GEC, Bhavnagar



Date: 02.01.2024

Mr. Malaviya Kamal Sureshbhai,

Jai Vali Street Satodipara Chalala Amreli Gujarat -365630

Appointment Letter

Dear Mr. Malaviya Kamal Sureshbhai,

We are pleased to offer you a position as a **Software Developer** from 16th January 2024 at La Net Team Software Solutions Pvt Ltd, Surat.

You will be offered Full-Time employment, as a **Software Developer** with our organization located at **Surat, Gujarat**.

The company reserves the right to terminate your employment/training on grounds of misconduct or breach of terms and conditions of employment.

Congratulations and welcome to the team!

Best Wishes,
For La Net Team Software Solutions Pvt Ltd


Ms. Palak Sharma
(HR Executive)



WWW.LANETTEAM.COM



406 Luxuria Business Hub, Near VR mall, Surat-Dumas Rd, Surat, Gujarat-395007



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GUJARAT TECHNOLOGICAL UNIVERSITY

CERTIFICATE FOR COMPLETION OF ALL ACTIVITIES AT ONLINE PROJECT PORTAL
B.E. SEMESTER VIII, ACADEMIC YEAR 2023-2024

Date of certificate generation : 10 April 2024 (19:11:55)

This is to certify that, **Malaviya Kamal Sureshbhai** (Enrolment Number - 210210107506) working on project entitled with **Devsearch** from **Computer Engineering** department of **GOVERNMENT ENGINEERING COLLEGE, BHAVNAGAR** had submitted following details at online project portal.

Internship Project Report	Completed
---------------------------	-----------

Name of Student : M a l a v i y a K a m a l
Sureshbhai

Name of Guide : Mr. Kamlesh Ramji Makvana

Signature of Student : _____

*Signature of Guide : _____

Disclaimer :

This is a computer generated copy and does not indicate that your data has been evaluated. This is the receipt that GTU has received a copy of the data that you have uploaded and submitted as your project work.

*Guide has to sign the certificate, Only if all above activities has been Completed.



Training Certificate

This is to certify that **Mr. Malaviya Kamal Sureshbhai**, is working at La Net Team Software Solutions Pvt. Ltd. as a Software Developer Trainee from **16th January 2024** to **16th April 2024**

During the training, he was found to be sincere and hardworking.

We wish him all the best in his future endeavors.

Best Wishes:

La Net Team Software Solutions Pvt. Ltd.

A handwritten signature in black ink, appearing to read 'Damini'.

Ms. Damini Choat
(HR Manager)



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GUJARAT TECHNOLOGICAL UNIVERSITY
(Established under Gujarat Act No. 20 of 2007)
ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી
(ગુજરાત અધિનિયમ ક્રમાંક: ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Annexure 2

Feedback Form by Industry expert

Student Name: Malaviya Kamal Sweshthai Date:

Work Supervisor: Title:

Company/Organization: La Net Team Software Solution PVT LTD

Enrollment No: 210210107506

Internship Address: 406, Luxuria Business Hub, Surat - 395007

Dates of Internship: From 26/01/2024 to 26/04/2024

Please evaluate your intern by indicating the frequency with which you observed the following behaviors:

Parameters	Needs improvement	Satisfactory	Good	Excellent
Shows interest in work and his/her initiatives			✓	
Produces high quality work and accepts responsibility			✓	
Uses technical knowledge and expertise			✓	
Analyzes problems effectively			✓	
Communicates well and writes effectively			✓	

Overall performance of student intern: (Needs improvement/ Satisfactory/ Good/ Excellent):

Additional comments, if any:

Signature of Industry person with name and Stamp:

Mitesh SURAT
LA NET TEAM SOFTWARE SOLUTIONS PVT LTD.

Signature of the Faculty Mentor



Government Engineering College, Bhavnagar

Nr. Sir BPTI Campus, Vidhyanagar, Bhavnagar-364002,
Gujarat ,India

DECLARATION

I hereby declare that the Internship report submitted along with the Internship entitled **DevSearch** submitted in partial fulfilment for the subject of internship (3180701) for degree of Bachelor of Engineering in computer engineering to Gujarat Technological University, Ahmedabad, is a bonafide record of original project work carried out by me at **La Net Team Software Solutions Pvt. LTD.** under the supervision of **Mr. Viresh Mistry** and that no part of this report has been directly copied from any student's reports or taken from any other source, without providing due reference.

Name of the Student

MALAVIYA KAMAL SURESHBHAI

Sign of Student

ACKNOWLEDGEMENT

Firstly, I would like to thank **Mr.Vires Mistry**, for giving me the opportunity to do an internship within the organization. I would like to all the people that worked along with me in **La Net Team Software Solutions Pvt. LTD.** with their patience and openness they created an enjoyable working environment.

The satisfaction that accompanies that the successful completion of any task would be incomplete. The mention of people whose ceases cooperation made it possible, whose constant guidance and encouragement crown all efforts with success.

We are thankfully to **Prof. K. R. Makvana** who has given a nice guidance & support to us to fulfil and complete within duration. We express our gratitude to **Prof. K. P. Kandoriya**, Head of the Computer engineering Department. who have guided and directed us at every moment to fulfil our mission and produce this work in front of you. At last, to all users for their interest in our work.

We are thankful to **Dr. M. G. Bhatt** Principal of the Government Engineering College Bhavnagar, for extending their full support.

Kamal Malaviya

210210107506

ABSTRACT

DevSearch is a transformative platform tailored to the needs of software developers navigating the expansive realm of software development. Crafted with a blend of JavaScript, Django, and Python technologies, DevSearch serves as a beacon in the bustling landscape of coding projects and talent discovery.

The User Module within DevSearch offers a seamless experience for developers to engage with the platform's features. Users can effortlessly log in, customize their profiles, explore a diverse array of developers and projects, submit reviews, contribute their own projects, and engage in meaningful conversations through messaging. Robust authentication and security protocols ensure the integrity of user interactions, fostering a safe and collaborative environment.

For guests, DevSearch provides an inclusive experience, allowing them to peruse projects, explore the site's functionalities, sign up for access to additional features, and participate in discussions through messaging.

Meanwhile, the Admin Module empowers administrators with comprehensive tools to manage user accounts, oversee project submissions, moderate comments and reviews, handle messages, and generate insightful reports to track platform performance and user engagement.

In essence, DevSearch transcends the conventional boundaries of talent discovery and project showcasing in software development. It revolutionizes the way developers connect, collaborate, and thrive in the dynamic ecosystem of coding projects and expertise exchange.

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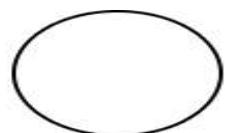
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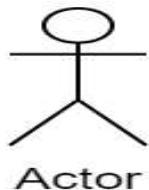
LIST OF SYMBOLS



Entity



Process



Actor



Direction

Directional
Connector



Data Store



Data Store

LIST OF ABBREVIATIONS

Abbreviation	Full Form
IDE	Integrated Development Environment
API	Application Programming Interface
UI	User Interface
UX	User Experience
JS	JavaScript
HTML	Hyper Text Markup Language
CSS	Cascading Style Sheet
JSON	JavaScript Object Notation
CI/CD	Continuous Integration/Continuous Deployment
CRUD	Create, Read, Update, Delete
DBMS	Database Management System
CSRF	Cross-Site Request Forgery
HR	Human Resources
JWT	JSON Web Token
SQL	Structured Query Language
UAT	User Acceptance Testing
QA	Quality Assurance

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Chapter

1

1. OVERVIEW OF THE COMPANY

1.1 History

1.2 Different Products

OVERVIEW OF THE COMPANY

1.1 HISTORY



Fig. 1.1.1: Organization logo

Company Name: La Net Team Software Solutions Pvt. LTD.

Address: 406, Luxuria Business Hub, Surat - Dumas Rd, near VR Mall, New Magdalla, Surat- 395007, Gujarat

Website: <https://www.lanetteam.com/>

La Net Team is a software outsourcing company based in India that provides cost-effective and high-quality software development services to its clients. The company is committed to delivering projects on time while adhering to stringent quality standards. La Net Team offers flexible and cutting-edge solutions that help its clients operate more efficiently and gain an edge over their competitors.

The company's services include website designing, e-commerce services, Android and IOS applications, graphic and logo design, website templates, website marketing, product development, and software development. La Net Team has a local presence that guarantees cost advantages, particularly for key locations where the company is situated.

La Net Team strives to upgrade its domain expertise to provide valuable business services to its clients. The company's primary goal is to help its clients focus on their business while leaving the responsibility of delivering the technology they need to run and make their business more competitive to La Net Team.

To ensure that its customers get exactly what they need, La Net Team offers a variety of solutions that can be customized, combined, or deployed right out of the box and integrated with existing enterprise applications. The company is ISO 9001:2008 certified and has been operating successfully since 2008, with a strong commitment to quality and high service orientation that has helped it grow at a fast pace.

La Net Team also offers a customer relationship management (CRM) web application called CRMONE that is developed using ReactJS. This web application is designed to help companies manage their customer relationships efficiently by providing a user-friendly platform for tracking customer interactions, managing leads, and monitoring customer satisfaction. By using the latest technology and best practices, La Net Team aims to create a web application that is intuitive and provides valuable insights into customer behavior and preferences.

1.2 DIFFERENT PRODUCTS

- [peaceloveworld](#)
- [CRM One – Customer Relationship Management solution](#)
- [UpFit - White-label nutrition plan creator that enables health & sports related website operators](#)

Chapter 2

2. OVERVIEW OF THE COMPANY DEPARTMENT

2.1 All Departments

2.2 Technical Specifications in department

2.3 Sequence of operators

2.4 Product stages

OVERVIEW OF THE COMPANY DEPARTMENT

2.1 All Departments

- HR Department
- Sales Marketing Department
- Development Department
- Testing Department

2.2 Technical Specifications in department

• **HR Department**

A HR department is tasked with maximizing employee productivity and protecting the company from any issues that may arise within the workforce. HR responsibilities include compensation and benefits, recruitment, firing, and keeping up to date with any laws that may affect the company and its employees.

• **Sales Marketing Department**

A sales and marketing department has the responsibility for deciding where the company should sell and what its prices should be. it's designed to make the life of you and your field sales team easier while increasing productivity and performance.

• **Development Department**

A Development department in different department like Web Development. Web development services help create all types of web-based software and ensure great experience for web users.

• **Testing Department**

Testing is the process of evaluating a system or its component(s) with the intent to find whether it satisfies the specified requirements or not. In simple words, testing is executing a system in order to identify any gaps, errors, or missing requirements in contrary to the actual requirements.

2.3 Sequence of operators

La Net Team Software Solutions Pvt. LTD. follows a systematic approach across its departments. The HR team focuses on recruitment, onboarding, and resource allocation. Sales engages with clients, generates proposals, and negotiates contracts.

Designing team collaborates with clients and internal teams for requirement analysis and iterative design.

Development team receives project requirements, allocates tasks to specialized teams, and executes coding and integration.

Testing team ensures quality through comprehensive testing, bug reporting, and user acceptance testing.

This structured sequence ensures a cohesive workflow from client interaction to the delivery of high-quality products.

2.4 Product stages

SCRUM PROCESS

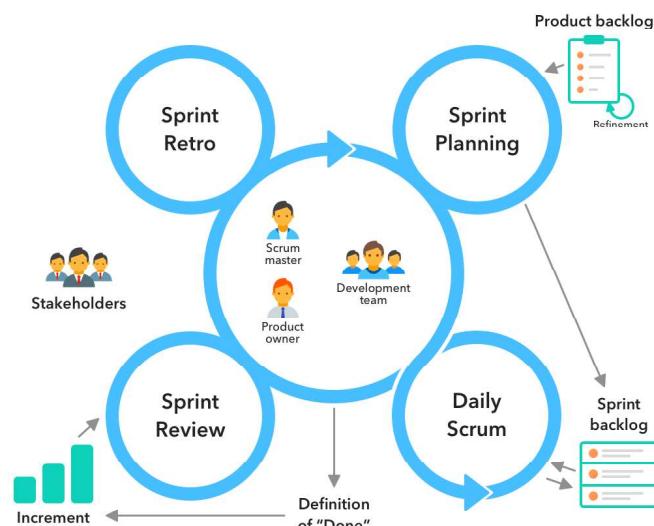


Fig.2.4.1: Production Stage

Chapter 3

3. INTRODUCTION TO INTERNSHIP

3.1 Project Summary

3.2 Purpose

3.3 Objective

3.4 Scope

3.5 Technology Review & Literature Review

3.6 Planning

3.7 Scheduling

INTRODUCTION TO INTERNSHIP

3.1 Project Summary

Table 3.1.1 Internship Summary Table

Project Title	DevSearch	
Aim	<p>DevSearch provides a centralized platform for developers to showcase their skills and projects, addressing the challenge of visibility in the expansive software development landscape. By enabling meaningful connections among developers, it fosters collaboration and overcomes obstacles to recognition in the dynamic field of software development.</p>	
Developed At	La Net Team Software Solutions Pvt. LTD	
Project Category	Web Application	
Tools	IDE Languages/Frameworks Database	PyCharm Python, Html,django Jinja, CSS, JavaScript SQL
Duration	12 Weeks (January 2024 to April 2024)	

3.2 Purpose

The purpose of DevSearch is to provide a centralized platform for developers to showcase their skills and projects, facilitating meaningful connections and collaboration within the software development community. By overcoming obstacles to recognition and visibility, DevSearch aims to foster a supportive environment for developers to connect with peers who share similar interests and expertise.

3.3 Objective

There are various goals we have in mind coming up with this project. We look forward to create the objectives of the DevSearch project are:

1. To provide a platform that connects developers with other developers, allowing them to showcase their skills and projects, and to collaborate and learn from each other.
2. To create a user-friendly platform that is easy to navigate and provides developers with a seamless experience.
3. To provide a platform for recruiters to search for potential candidates based on their skills and projects.
4. To create a centralized platform that allows companies to find and hire the right talent for their projects.
5. To promote the growth and development of the developer community by providing a platform for sharing knowledge and collaborating on projects.
6. To provide developers with a space to discover new projects and ideas, and to showcase their skills to a wider audience.
7. To create a vibrant community of developers who can share their knowledge and contribute to the growth and development of the developer community as a whole.

Overall, the objectives of the DevSearch3 project are focused on creating a platform that benefits both developers and recruiters, and promotes the growth and development of the developer community.

3.4 Scope

This system is found tested and examined for its successful processing. Future change in the environment or processing can be easily adopted by having simple change in coding. It is very user friendly, cost effective, feature rich and it provides very high level of security.

It protects the unauthorized users. Moreover, the system coding is so well designed those new operations can be easily incorporated without much modification.

3.5 Technology and Literature Review

Table 3.5.1 Technologies Used to Develop Project

Front End	javascript, html, jinja templates, CSS
Back End	django, Jinja
Database	SQL

JavaScript: A versatile programming language commonly used for web development to add interactivity and dynamic behavior to web pages. It's supported by all modern web browsers and allows for client-side scripting.

HTML: HyperText Markup Language is the standard markup language for creating web pages and web applications. It defines the structure and content of web pages using a variety of tags and attributes.

Jinja Templates: Jinja is a templating engine for Python, often used in web development frameworks like Flask and Django. Jinja templates allow developers to generate dynamic content in HTML files by incorporating Python-like syntax for logic and control structures.

CSS: Cascading Style Sheets is a style sheet language used for describing the presentation of HTML and XML documents. It controls the layout, colors, fonts, and other visual aspects of web pages, allowing for separation of content and presentation.

Python-Django: Django is a high-level Python web framework that facilitates rapid development of web applications. It follows the model-view-controller (MVC) architectural

pattern and includes features such as an object-relational mapper (ORM), URL routing, authentication, and templating.

SQL: Structured Query Language is a domain-specific language used for managing and manipulating relational databases. It allows users to perform tasks such as querying data, inserting or updating records, and defining the structure of databases and tables. SQL is essential for interacting with databases in web applications, including Django projects.

3.6 Planning

3.6.1 Project / Internship Development Approach and Justification

The software development models are the various processes or methodologies that are being selected for the development of the project depending on the project's aims and goals. There are many development life cycle models that have been developed in order to achieve different required objectives. The models specify the various stages of the process and the order in which they are carried out.

The selection of model has very high impact on the testing that is carried out. It will define the what, where and when of our planned testing, influence regression testing and largely determines which test techniques to use. According to our project requirements we chose scrum methodology to accomplish project in effective and timely manner.

3.6.2 Scrum Methodology

Scrum is an agile development methodology used in the development of Software based on an iterative and incremental processes. Scrum is adaptable, fast, flexible and effective agile framework that is designed to deliver value to the customer throughout the development of the project.

The primary objective of Scrum is to satisfy the customer's need through an environment of transparency in communication, collective responsibility and continuous progress. The development starts from a general idea of what needs to be

built, elaborating a list of characteristics ordered by priority (product backlog) that the owner of the product wants to obtain.

3.6.3 Scrum Methodology & Process

Scrum is precisely an evolution of Agile Management. Scrum methodology is based on a set of very defined practices and roles that must be involved during the software development process. It is a flexible methodology that rewards the application of the 12 agile principles in a context agreed by all the team members of the product.

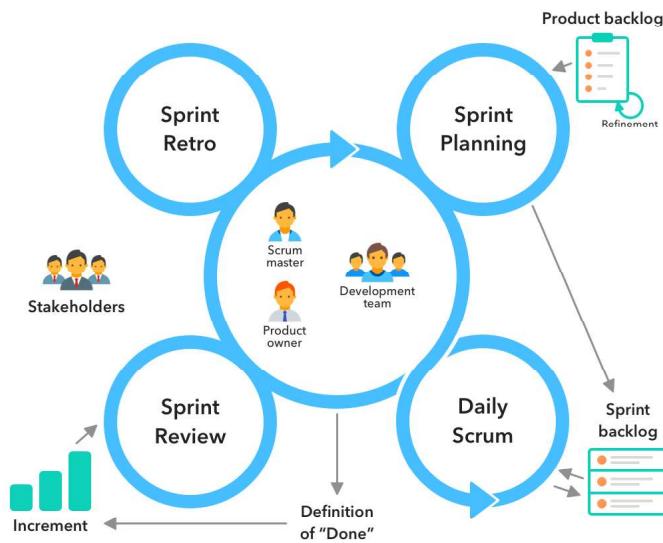


Fig. 3.6.3.1: Scrum Methodology & Process

Scrum is executed in temporary blocks that are short and periodic, called Sprints, which usually range from 2 to 4 weeks, which is the term for feedback and reflection. Each Sprint is an entity in itself, that is, it provides a complete result, a variation of the final product that must be able to be delivered to the client with the least possible effort when requested.

The process has as a starting point, a list of objectives/ requirements that make up the project plan. It is the client of the project that prioritizes these objectives considering a balance of the value and the cost thereof, that is how the iterations and consequent deliveries are determined.

On the one hand the market demands quality, fast delivery at lower costs, for which a company must be very agile and flexible in the development of products, to achieve short development cycles that can meet the demand of customers without undermining the quality of the result. It is a very easy methodology to implement and very popular for the quick results it gets.

Scrum methodology is used mainly for software development, but other sectors are also taking advantage of its benefits by implementing this methodology in their organizational models such as sales, marketing, & HR teams etc.

3.6.4 Roles and Responsibilities

- Scrum Master**

The person who leads the team guiding them to comply with the rules and processes of the methodology. Scrum master manages the reduction of impediments of the project and works with the Product Owner to maximize the ROI. The Scrum Master is in charge of keeping Scrum up to date, providing coaching, mentoring and training to the teams in case it needs it.

- Product Owner**

Product is the representative of the stakeholders and customers who use the software. They focus on the business part and is responsible for the ROI of the project. They translate the vision of the project to the team, validate the benefits in stories to be incorporated into the Product Backlog and prioritize them on a regular basis.

- Team**

A group of professionals with the necessary technical knowledge who develop the project jointly carrying out the stories they commit to at the start of each sprint.

3.6.5 Group Dependencies

- **Application development team**

Responsible for end-to-end development of the DevSearch Application, including backend functionalities using django, frontend interfaces using HTML, Jinja, CSS, and JavaScript .

- **Testing and Quality Assurance Team**

Work across all development teams to conduct unit tests, integration tests, and user acceptance tests for ensuring application reliability.

Conduct regular code reviews to maintain code quality and adherence to project standards.

- **Database Administration Team**

Responsible for designing, optimizing, and maintaining the Postgress database schema for efficient data storage and retrieval in the Recipe Book Application. Collaborates closely with the Development Team to ensure database integrity, security, and performance.

- **Project Management Team:**

Oversees the overall project execution, including scheduling, resource allocation, and progress tracking.

Facilitates communication and coordination between different teams to ensure smooth project delivery.

Manages project risks and escalates issues as necessary to ensure timely resolution.

3.7 Scheduling

Table 3.7.1 Gantt Chart

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Activity	January		February					March				April	
Planning and Research													
Design and Architecture													
Development													
Testing and Quality Assurance													
Optimization and Deployment													
Documentation and Training													
Project Handover													

Chapter

4

4. SYSTEM ANALYSIS

- 4.1 Study of Current System**
 - 4.2 Weakness of Current System**
 - 4.3 Requirement of New System**
 - 4.4 Feasibility Study**
 - 4.5 Use case Diagram**
 - 4.6 Data flow Diagram**
 - 4.7 List of main Modules**
 - 4.8 Features of New System**
 - 4.9 Selection of Hardware and Software**
-

SYSTEM ANALYSIS

4.1 Study of Current System

- **Developer Social Media Portfolio Platform:**

Initiated during my internship, my focus was on acquiring proficiency in both frontend and backend technologies, particularly Python-Django. With the freedom to select our projects, I opted to craft a unique platform catering to developers, merging elements of social media and portfolio showcasing.

Drawing from my observations of existing portfolio and talent discovery systems, I identified common features such as Profile Creation, messaging, and job search functionalities.

My envisioned project entailed the development of a sleek and minimalist web application, offering users the ability to register, explore new developers, and exhibit their own skills and projects effectively.

4.2 Weakness of Current System

1. The currently available systems for talent discovery or Portfolio sites have limited features like limited visibility of skills and limited Project Description.
2. Though it serves great usefulness in current times. It lacks user-friendliness.
3. Skills and Project pages should be made different.
4. Developers should be able to message each other.
5. Developers should be able to write reviews to other Projects.

4.3 Requirement of New System

1. A common system to store user details, project details, skills details, etc.
2. Explore other developers' profiles to find potential collaborators or mentors.
3. More of a user-friendly system so that no highly skilled users are required to operate
4. Security and Data Privacy. Search and Filter Functionality.
5. Admin Tools for developer profile management and easy maintenance and Updates

4.4 Feasibility Study

Table: 4.4.1 Activity of Proposed System

Title	Date	Status
Familiar with Technologies	16/01/2024 to 30/01/2024	Completed
Planning and Research	31/01/2024 to 05/02/2024	Completed
Design and Architecture	06/02/2024 to 11/02/2024	Completed
Data Gathering & Requirement Analysis	12/02/2024 to 14/02/2024	Completed
Design Diagrams	15/02/2024 to 17/02/2024	Completed
Data Dictionary	18/02/2024 to 22/02/2024	Completed
Database, Stored Procedure	23/02/2024 to 27/02/2024	Completed
Template Design, Reports	28/02/2024 to 02/03/2024	Completed
Coding/Implementation	02/03/2024 to 24/03/2024	Completed
Change Detection	25/03/2024 to 28/03/2024	Completed
Testing	29/03/2024 to 02/04/2024	Completed
Referencing the change	03/04/2024 to 08/04/2024	Completed

4.5 Use case Diagram

- User Use Case Diagram:

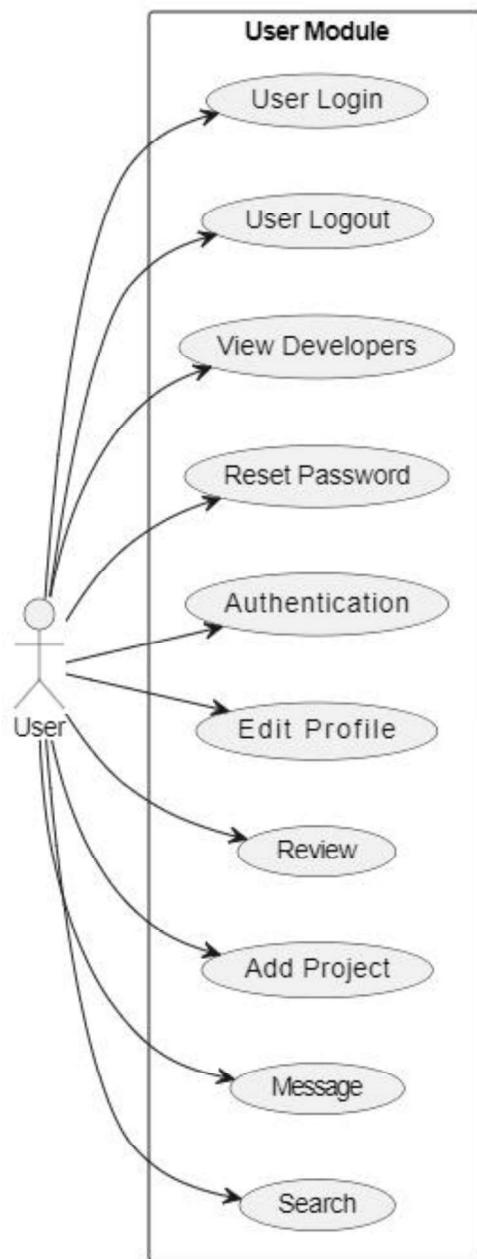


Fig.4.5.1: User Use Case Diagram

- **Guest Use Case Diagram:**

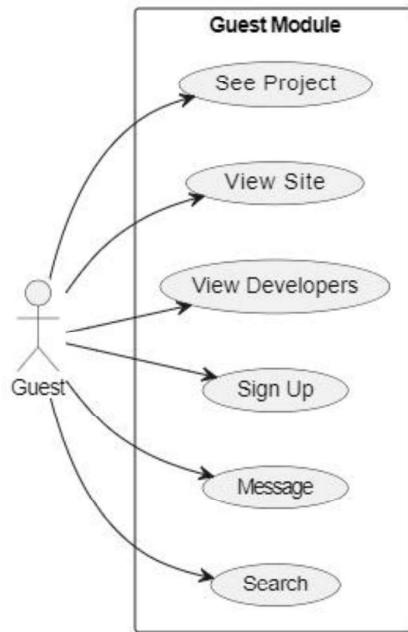


Fig.4.5.2: Guest Use Case Diagram

- **Admin Use Case Diagram:**

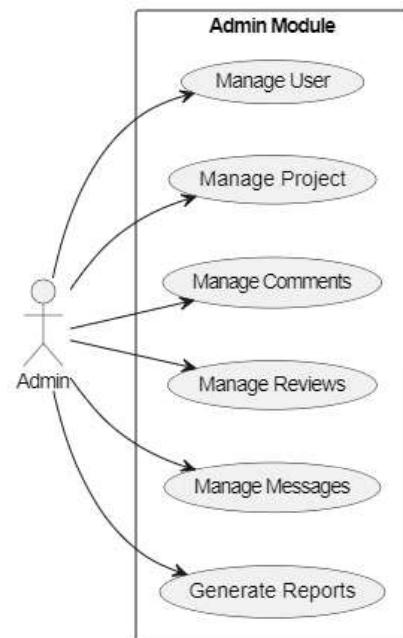


Fig.4.5.3: Admin Use Case Diagram

4.6 Data Flow Diagram

- **Level 0 DFD Diagram:**

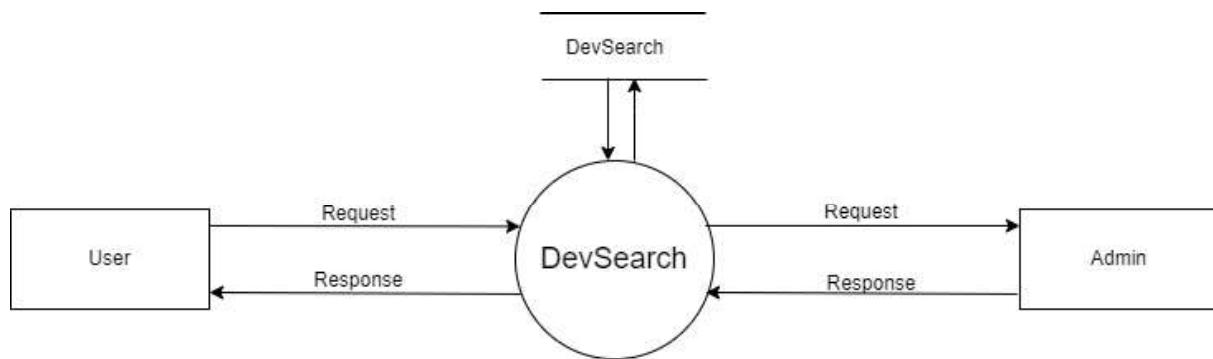
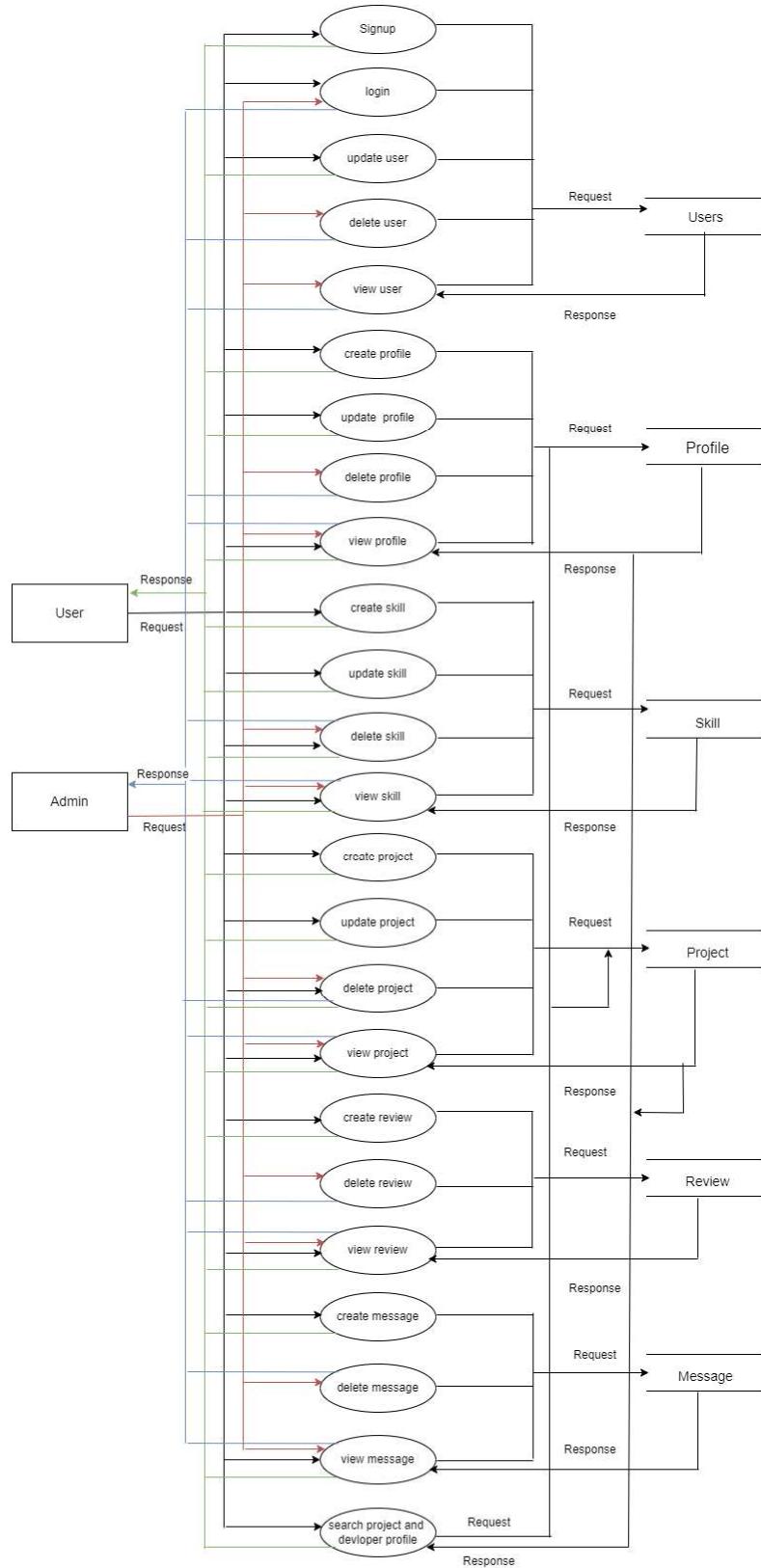


Fig.4.6.1: Level 0 DFD Diagram

- **Level 1 DFD Diagram:**

**Fig.4.6.2: Level 1 DFD Diagram**

4.7 List of Modules

- System consists mainly three main modules:
 - i. Admin
 - ii. User

4.8 Features of New System

Create comprehensive profiles highlighting their skills, projects, and work experience.

Explore profiles of fellow developers to identify potential collaborators or mentors.

Contribute to the community by sharing knowledge and expertise through the creation or participation in open-source projects.

Administrators are responsible for database management and regular updates, overseeing registered admins and their associated projects within the application.

The user interface is designed with common features akin to various websites, ensuring ease of navigation for users familiar with web browsing. Simply click on the navigation bar to access corresponding pages.

4.9 Selection of Hardware and Software

- **Hardware**
 - Development Machine Requirement (Average performance)
 - 8 GB RAM
 - 100 GB HDD
 - Internet
 - Client Machine Requirement
 - 4 GB RAM
 - 5 GB of HDD space
 - Network related tools
 - Host Machine Requirement
 - 32 GB RAM
 - 500 GB of HDD space
 - Network related tools

- **Software**

- Development Machine Requirements
 - PyCharm
 - Sql
 - PG Admin
 - Browser
 - Docker
 - Python(Django)
- Client Machine Requirements
 - Any machine with browser
- Host Machine Requirements
 - Gunicorn

Chapter 5

5. SYSTEM DESIGN

5.1 System Design and Methodology

5.2 Database Design

5.3 Interface Design

SYSTEM DESIGN

5.1 System Design and Methodology

We are using Scrum Methodology in development process.

Scrum is an agile development methodology used in the development of Software based on iterative and incremental processes. Scrum is adaptable, fast, flexible and effective agile framework that is designed to deliver value to the customer throughout the development of the project. The primary objective of Scrum is to satisfy the customer's need through an environment of transparency in communication, collective responsibility and continuous progress. The development starts from a general idea of what needs to be built, elaborating a list of characteristics ordered by priority (product backlog) that the owner of the product wants to obtain.

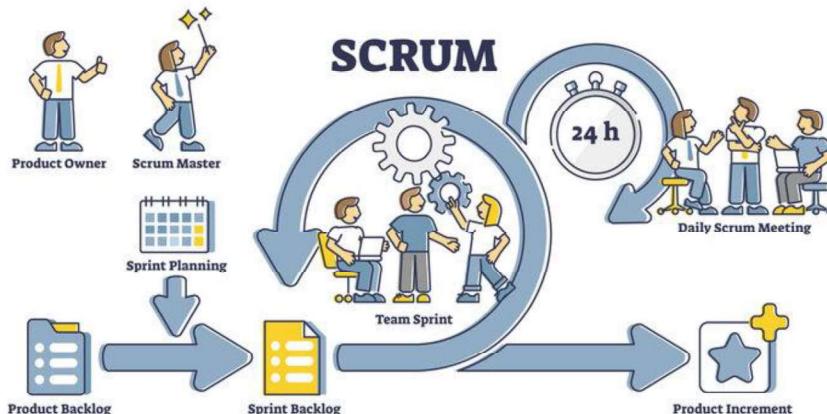


Fig. 5.1.1. Scrum Process

5.1.1 Scrum Methodology & Process

Scrum is precisely an evolution of Agile Management. Scrum methodology is based on a set of very defined practices and roles that must be involved during the software development process. It is a flexible methodology that rewards the application of the 12 agile principles in a context agreed by all the team members of the product.

Scrum is executed in temporary blocks that are short and periodic, called Sprints,

which usually range from 2 to 4 weeks, which is the term for feedback and reflection. Each Sprint is an entity in itself, it provides a complete result, a variation of the final product that must be able to be delivered to the client with the least possible effort when requested.

The process has as a starting point, a list of objectives/ requirements that make up the project plan. It is the client of the project that prioritizes these objectives considering a balance of the value and the cost there of, that is how the iterations and consequent deliveries are determined.

On the one hand the market demands quality, fast delivery at lower costs, for which a company must be very agile and flexible in the development of products, to achieve short development cycles that can meet the demand of customers without undermining the quality of the result.

Scrum methodology is used mainly for software development, but other sectors are also taking advantage of its benefits by implementing this methodology in their organizational models such as sales, marketing, & HR teams etc.

5.1.1 Different Roles in Scrum

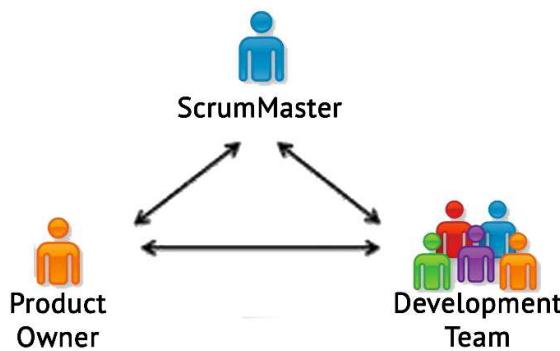


Fig 5.1.2. Different Roles in Scrum

5.2 Database Design

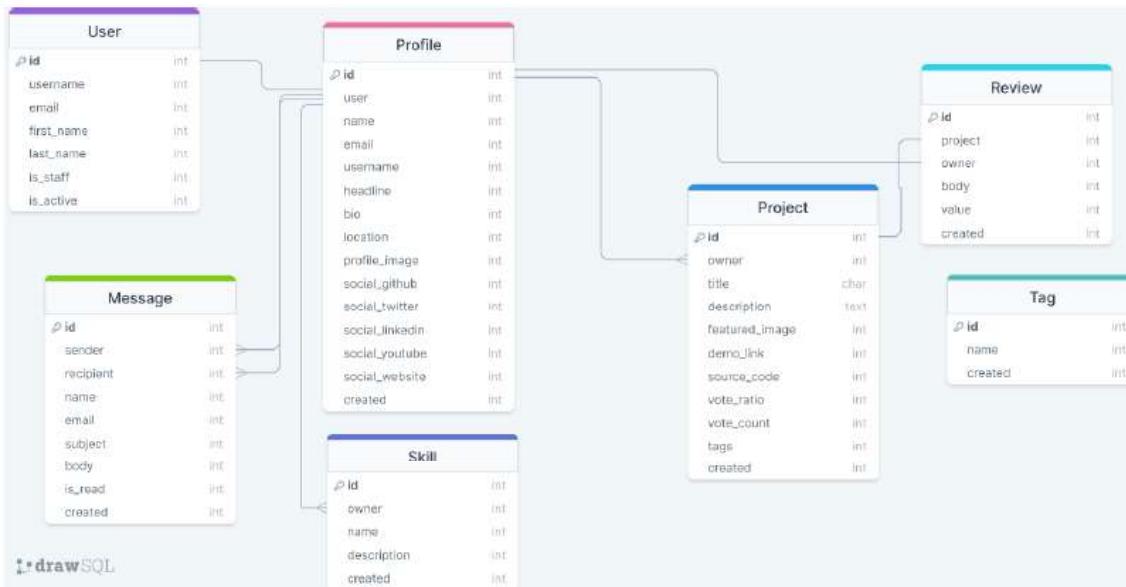


Fig 5.2.1 Database Structure of the project

Table 5.2.1 Users

SR.NO	COLUMN NAME	DATATYPE	CONSTRAINT
1.	id	UUIDField()	NOT NULL PRIMARY KEY AUTO INCREMENT
2.	username	CharField(255)	NOT NULL UNIQUE
3.	email	EmailField(255)	-
4.	firstname	CharField(255)	-
5.	lastname	CharField(255)	-
6.	Is_active	BooleanField(255)	Default(True)

Table 5.2.2 Profile

SR.NO	COLUMN NAME	DATATYPE	CONSTRAINT
1.	id	UUIDField()	NOT NULL AUTO INCREMENT PRIMARY KEY
2.	User	OneToOneField(User)	FOREIGN_KEY (user.id)
3.	name	CharField(255)	-
4.	email	EmailField(255)	-
5.	username	CharField(255)	-
6.	Short_intro	CharField(255)	-
7.	bio	TextField(200)	-
8.	location	CharField(200)	-
9.	profile_image	ImageField(200)	DEFAULT Image
10.	social_github	CharField(255)	DEFAULT NULL
11.	social_twitter	CharField(255)	DEFAULT NULL
12.	social_linkedin	CharField(255)	DEFAULT NULL
13.	social_youtube	CharField(255)	DEFAULT NULL
14.	social_website	CharField(255)	DEFAULT NULL
15	created	DateTimeField(255)	Auto_now_add

Table 5.2.3 Project

SR.NO	COLUMN NAME	DATATYPE	CONSTRAINT
1.	id	UUIDField()	NOT NULL AUTO INCREMENT PRIMARY KEY
2.	owner	ForeignKey (Profile)	FOREIGN_KEY (profile.id)
3.	title	CharField (255)	NOT NULL
4.	description	TextField (255)	-
5.	featured_image	ImageField()	DEFAULT image
6.	demo_link	CharField (255)	-
7.	source_link	CharField (255)	-
8.	vote_ratio	IntegerField()	Default (0)
9.	Vote_count	IntegerField()	Default (0)
10.	tags	ManyToMany Field(Tag)	FOREIGN_KEY (Tag.id)
11.	created	DateTimeField()	Auto_new_add

Table 5.2.4 Message

SR.NO	COLUMN NAME	DATATYPE	CONSTRAINT
1.	id	UUIDField()	NOT NULL AUTO INCREMENT PRIMARY KEY
2.	sender	ForeignKey()	FOREIGN_KEY (profile.id)
3.	recipient	ForeignKey()	FOREIGN_KEY (profile.id)
4.	name	CharField(255)	-
5.	email	EmailField(255)	-
6.	subject	CharField(255)	-
7.	body	TextField()	-
8.	Is_read	BooleanField()	Default(false)
9.	created	DateTimeField()	Auto_new_add

Table 5.2.5 Skill

SR.NO	COLUMN NAME	DATATYPE	CONSTRAINT
1.	id	UUIDField()	NOT NULL AUTO INCREMENT PRIMARY KEY
2.	owner	ForeignKey()	FOREIGN_KEY (profile.id)
3.	name	CharField(255)	

4.	description	TextField()	-
5.	created	DateTimeField()	Auto_new_add

Table 5.2.6 Review

SR.NO	COLUMN NAME	DATATYPE	CONSTRAINT
1.	id	UUIDField()	NOT NULL AUTO INCREMENT PRIMARY KEY
2.	owner	ForeignKey()	FOREIGN_KEY (profile.id)
3.	project	ForeignKey()	FOREIGN_KEY (project.id)
4.	body	TextField()	-
5.	value	CharField(255)	Choices(vote type)
6.	created	DateTimeField()	Auto_new_add

Table 5.2.6 Tag

SR.NO	COLUMN NAME	DATATYPE	CONSTRAINT
1.	id	UUIDField()	NOT NULL AUTO INCREMENT PRIMARY KEY
2.	name	CharField(255)	-
3.	created	DateTimeField()	Auto_new_add

5.3 Interface Design

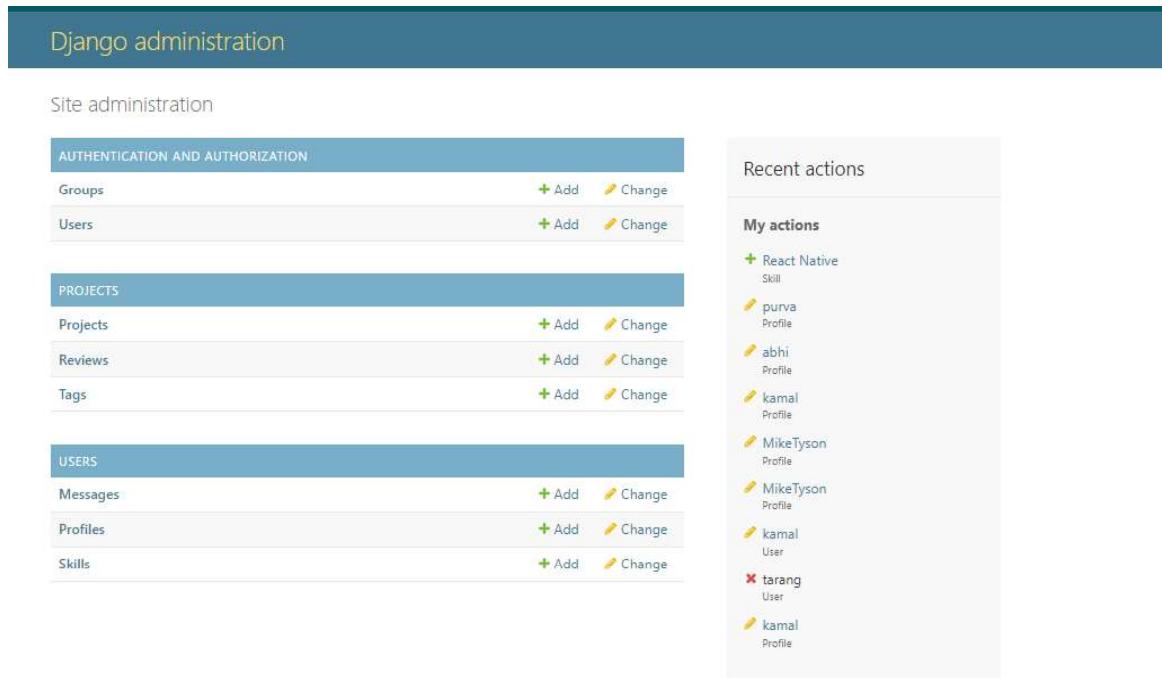


Fig 5.3.1 Admin Dashboard Landing Page

Django administration					
Home > Authentication and Authorization > Users					
Select user to change					
Action: <select>-----</select> <input type="button" value="Go"/> 0 of 6 selected					
USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS	
Deep	asd@gmail.com	Deep	Parmar	✘	
JayDhameliya	asdasdasd@M.COM	Jay	Dhameliya	✘	
MikeTyson	arsh@gmail.com	Mike	Tysson	✘	
abhi	goyaniabhi28@gmail.com	Abhi	Goyani	✘	
kamal	kamalmalaviya77@gmail.com	KAMAL		✓	
purva	malaviyakamal32@gmail.com	purva		✘	

Fig 5.3.2 Admin User Management

Description: The User Management page for admins allows easy control over user accounts, privileges, and profiles, enabling efficient management of user interactions and ensuring platform security and integrity.

The screenshot shows a user profile editing form for a user named 'kamal'. The form includes fields for User (dropdown), Name (KAMAL), Email (kamalmalaviya77@gmail.com), Username (kamal), Location (bhavnagar), Short intro (software dev), and Bio (a detailed paragraph about DevSearch). Below the bio, there are fields for Profile image (currently profiles/netflix_srcLT3U.png) and Social github (https://github.com/MalaviyaKamal).

User Profile	
User:	kamal
Name:	KAMAL
Email:	kamalmalaviya77@gmail.com
Username:	kamal
Location:	bhavnagar
Short intro:	software dev
Bio:	"DevSearch offers developers a vibrant platform to showcase their expertise and projects, fostering collaboration and networking opportunities within the community. With intuitive navigation and user-friendly features, users can effortlessly create detailed profiles highlighting their skills, experiences, and contributions. Explore a diverse array of developer profiles to discover potential collaborators or mentors, enriching your professional journey. Join DevSearch today to share your knowledge, contribute to open-source projects, and connect with like-minded developers worldwide. Empower your career in tech with DevSearch's innovative platform for talent discovery and collaboration."
Profile image:	Currently: profiles/netflix_srcLT3U.png <input type="button" value="Clear"/> Change: <input type="button" value="Choose File"/> No file chosen
Social github:	https://github.com/MalaviyaKamal

Fig 5.3.3 user profile admin management

The screenshot shows a skill management form for a skill named 'fullstack developer'. It includes fields for Owner (dropdown), Name (fullstack developer), and Description (django,flask,reastapi,react,java,script,bootstrap,css,html). At the bottom, there are buttons for SAVE, Save and add another, and Save and continue editing.

Skill Management	
Owner:	kamal
Name:	fullstack developer
Description:	django,flask,reastapi,react,java,script,bootstrap,css,html
<input type="button" value="SAVE"/> <input type="button" value="Save and add another"/> <input type="button" value="Save and continue editing"/>	

Fig 5.3.4 user Skill admin management

Change project

Ecommerce

Owner:    

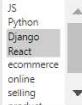
Title: Ecommerce

Description:
the majority have suffered alteration in some form, by injected humour, or randomised words which don't look even slightly believable. If you are going to use a passage of Lorem Ipsum, you need to be sure there isn't anything embarrassing hidden in the middle of text. All the Lorem Ipsum generators on the Internet tend to repeat predefined chunks as necessary, making this the first true generator on the Internet. It uses a dictionary of over 200 Latin words, combined with a handful of model sentence structures, to generate Lorem Ipsum which looks reasonable.

Featured image: Currently: Devsearch_Home.jpg    Change:  No file chosen

Demo link: arsh.com

Source link: yo.com

Tags: 
JS
Python
Django
React
ecommerce
online
selling
product
Hold down 'Control', or 'Command' on a Mac, to select more than one.

Vote total: 6

Vote ratio: 66

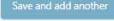
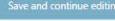
  

Fig 5.3.5 user project admin management

Change review

up

Owner: kamali    

Project: Ecommerce    

Body: deonjan

Value: Up Vote  

Fig 5.3.6 user review admin management

Chapter 6

6. IMPLEMENTATION

6.1 Implementation Platform

6.2 Module Specification

6.3 Output Screenshots

IMPLEMENTATION

6.1 Implementation Platform

- **PyCharm**

PyCharm, developed by JetBrains, is an open-source code editor designed for Python developers on Windows, Linux, and MacOS. It offers a range of features including debugging, syntax highlighting, code completion, snippets, refactoring tools, and integrated Git support. Users can customize themes, shortcuts, preferences, and extend functionality with plugins. In the Stack Overflow 2021 Developer Survey, PyCharm was recognized as a popular choice among developers, with a significant number reporting it as their preferred Python development environment.

- **Docker**

Docker is an open-source platform that allows developers to create, deploy, and run applications in containers. It provides a consistent environment across different systems, making it easier to package software and its dependencies into portable units called containers. Developers can efficiently build, ship, and run applications using Docker, enabling seamless deployment and scaling of applications. In the Stack Overflow 2021 Developer Survey, Docker was widely adopted, with developers appreciating its ability to streamline the development-to-production workflow and facilitate efficient application deployment.

- ***Git & GitHub***

Working with Git and other SCM providers has never been easier. Review different, stage files, and make commits right from the editor. Push and pull from any hosted SCM service. It provides Version Control, and Collaboration and Documentation.

6.2 Module Specification

This application is going to be used by mainly 3 kinds of user that deals with this application:

- 1. Admin**
- 2. User**

1. Admin

Responsibility of administrator is to manage the application database and update the data in database regularly. For e.g., manage the data of registered admins and their projects.

User who uses this portal should know how to operate the web. Because the webapp has common look and features like different websites.

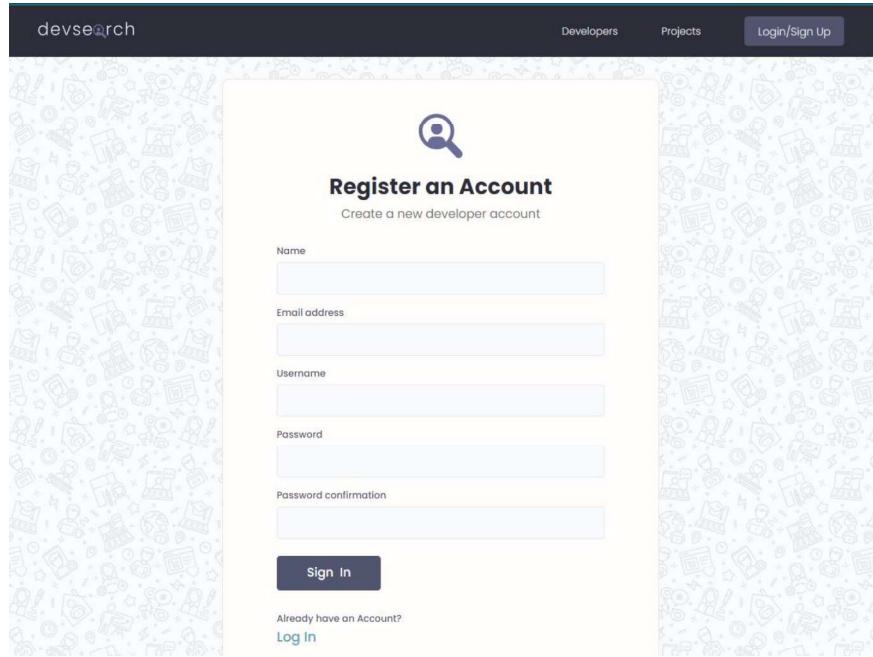
Just click navigation bar and corresponding page will open up.

2. User

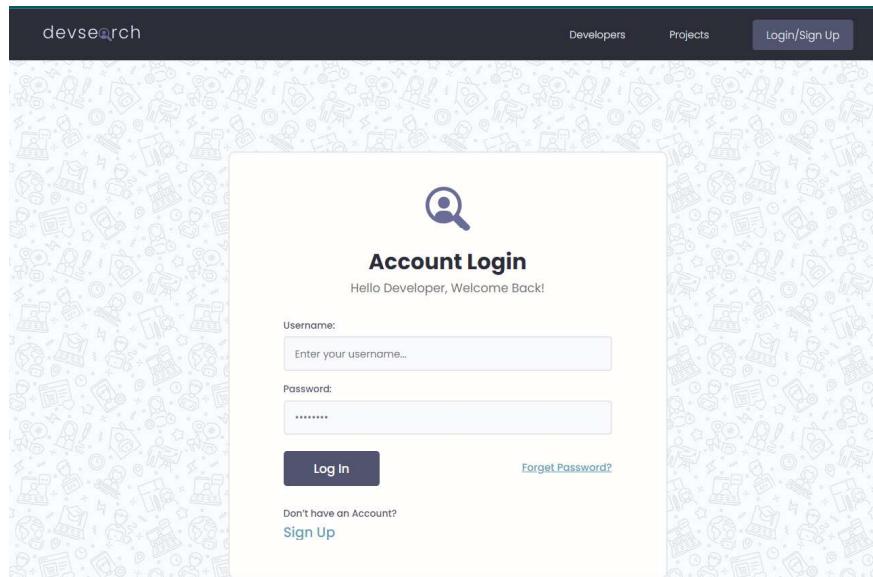
Users in DevSearch can perform various actions depending on their role and level of access. Here are some of the actions that users can perform:

1. Create a profile that showcases their skills, projects, and work experience.
2. Explore other developers' profiles to find potential collaborators or mentors.
3. Share their knowledge and expertise by creating or contributing to open-source projects.

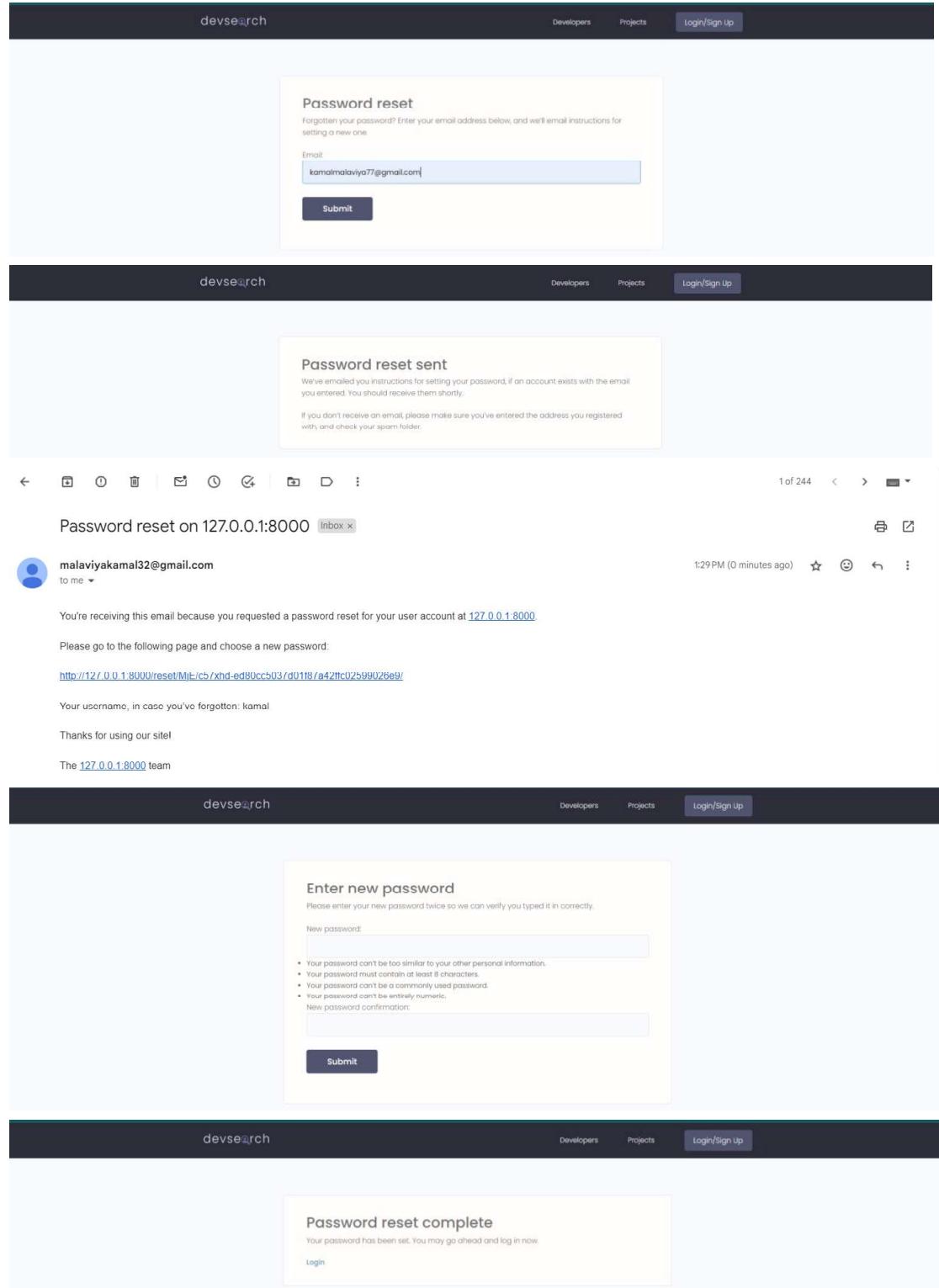
6.3 Output Screenshots

***Fig 6.3.1 Register Page***

Description: This is Screenshot of Register page from frontend which is shown at user side when user opens website this pages will display if user is already have an account than Login page have to submit else Register page for fresh users.

***Fig 6.3.2 Login Page***

Description: This is Screenshot of Login page from frontend which is shown at user side when if user is already have an account than Login page have to submit else Register page for fresh users.

***Fig 6.3.3 Reset Password***

Description: To reset your password, simply enter your email and submit the request. Once received, follow the link provided in the email to create a new password. After submitting the new password, you'll successfully reset it and gain access to your account.

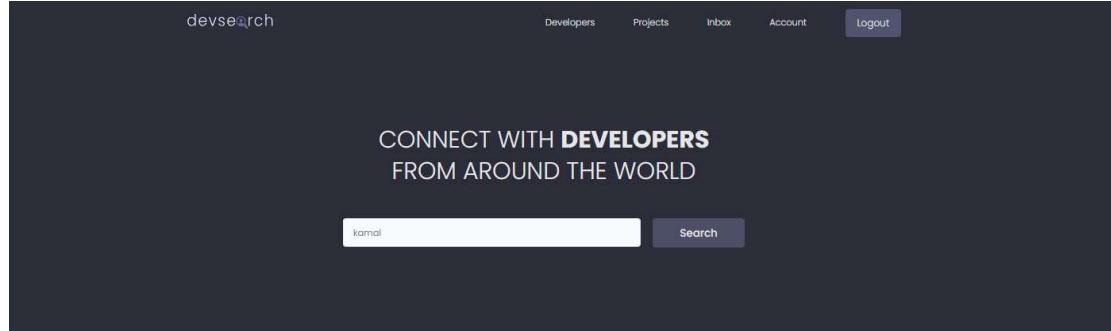
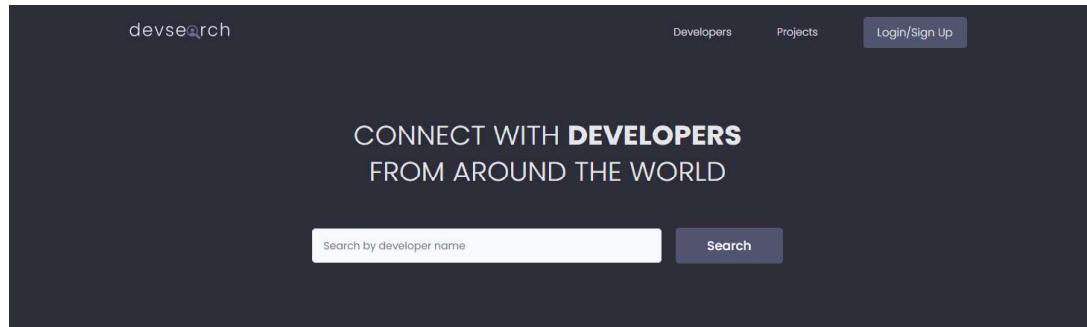


Fig 6.3.4 Home Page-intro and search functionality

Description: This is Screenshot of Home page from frontend which is shown at user side when user opens website we can provide search functionality base on project, Skill and Name people.

The screenshot displays two main sections of the devsearch application. The top section shows a search interface with a search bar containing 'Search by Project Title' and a 'Search' button. Below this, there are four project cards:

- NEW MESSAGES(2)**: Shows two new messages from Dennis Reiter and Md. Shafiqur Reza.
- Code Sniper**: A project by 'By' with 100% Positive Feedback (2) Votes. It uses Django and JS.
- codesniper**: A project by 'By' with 100% Positive Feedback (2) Votes. It uses React and Python.
- Mumble Social Networks**: A project by 'By' with 100% Positive Feedback (2) Votes. It uses React and Python.
- G Pay**: A project by Deep Parmar with 100% Positive Feedback (1) Vote. It uses Python.

The bottom section shows a search interface with a search bar containing 'ecommerce' and a 'Search' button. Below this, there is one project card:

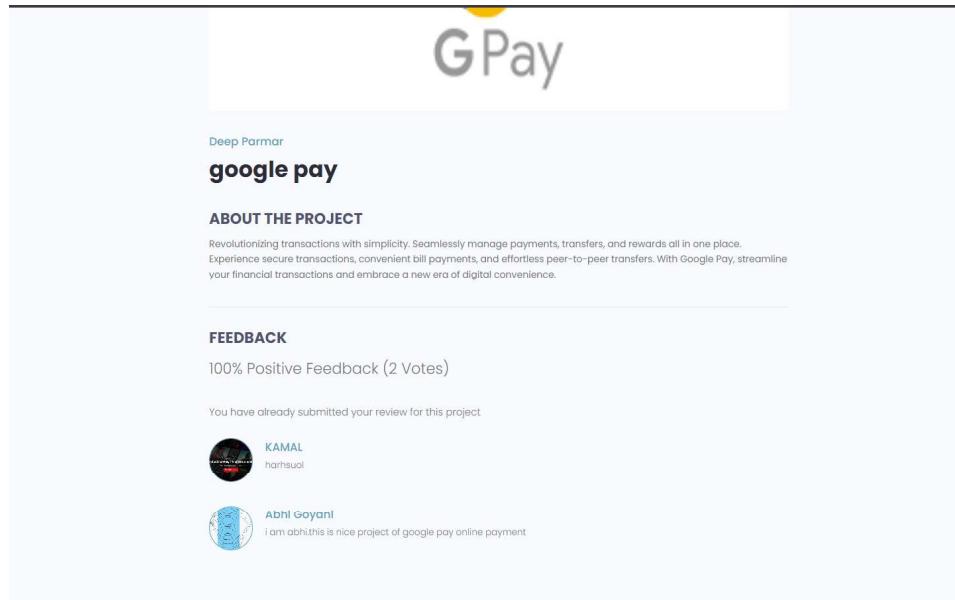
- Ecommerce**: A project by Mike Tyson with 66% Positive Feedback (6) votes. It uses React and Django.

A URL at the bottom left of the first section indicates the project page: <http://127.0.0.1:8000/projects/project/050112fe-0a77-4a58-bf96-0efde06bb24f/>

Fig 6.3.5 Project page and search project functionality

Description: This is Screenshot of project page from frontend which is shown at user side when user opens website we can provide search functionality base on project, Skill and Name people.

The screenshot shows a project page on the devsearch platform. At the top, there's a navigation bar with links for Developers, Projects, Inbox, Account, and Logout. Below the navigation, the page title is "Implementation". On the left, under "TOOLS & STACKS", there's a "Python" badge. Below it are "Source Code" and "Live Demo" links. The main content area features the Google Pay logo. Below the logo, the author is listed as "Deep Parmar" and the project name is "google pay". A section titled "ABOUT THE PROJECT" describes the project as revolutionizing transactions with simplicity, mentioning seamless management of payments, transfers, and rewards. A "FEEDBACK" section shows 100% positive feedback from one voter. A review by "KAMAL" (harhsuol) states: "I am gbbhi.this is nice project of google pay online payment!". There's also a "Add Review" button.

**Fig 6.3.6 Project detail page and feedback form**

Description: Explore projects effortlessly with our comprehensive project view feature. With just a click, users can access vital project details such as source code links, live project demonstrations, and insightful project descriptions. Additionally, users can provide feedback via a dedicated form, allowing developers to gather valuable insights. Through this intuitive interface, users can also view all feedback provided, fostering transparency and collaboration within our community.

NEW MESSAGES(0)

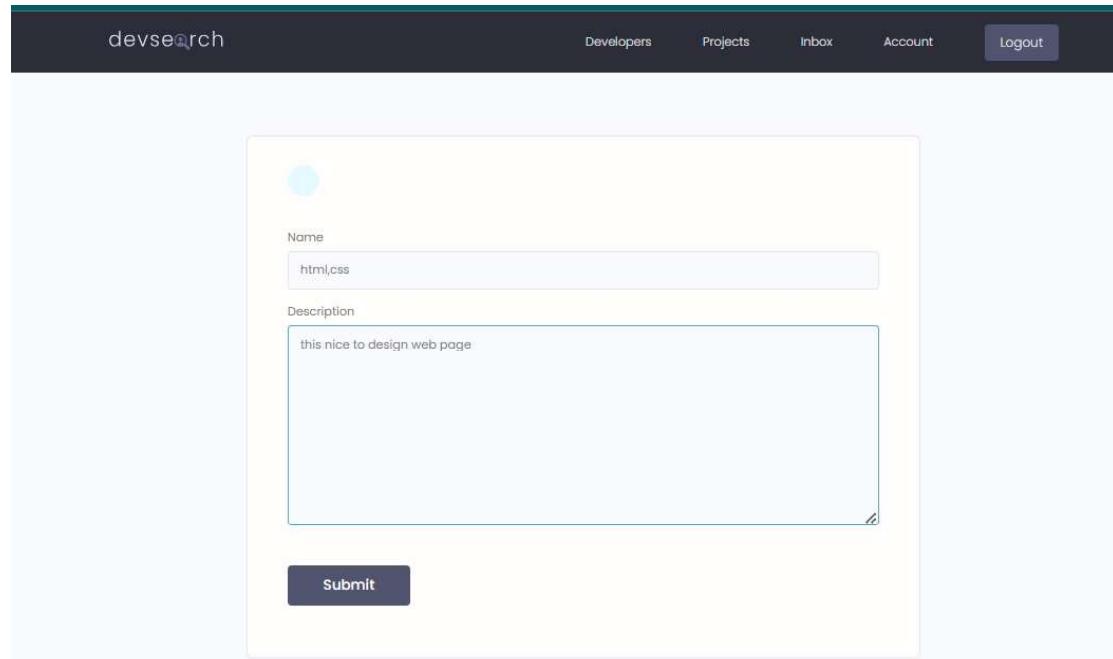
gec bhavnagar	explain your project ecommerce.	April 9, 2024, 9:44 a.m.
purva	how it work	March 21, 2024, 12:54 p.m.
goti	how it work	March 20, 2024, 7:47 a.m.
vivek	ecommerce	March 13, 2024, 1:30 p.m.

Fig 6.3.7 all message show in inbox

Description: developers can access a centralized inbox showcasing all received messages. From project inquiries to collaboration requests, every message is organized for efficient management.

The screenshot shows a user profile for "KAMAL". The "About Me" section contains a placeholder profile picture with an "edit" button, a bio about limited movies and TV shows, and the name "KAMAL" with a "Based in bhavnagar" note. The "Skills" section lists "fullstack developer" with technologies "django, flask, reactjs, react, javascript, bootstrap, css, html" and edit/delete buttons. The "Projects" section shows a thumbnail for a project titled "commerce" with the description "this nice project for selling online project" and edit/delete buttons.

The screenshot shows the profile edit page for "KAMAL". It includes fields for Name (KAMAL), Email (kamalmalaviya77@gmail.com), Username (kamal), Location (bhavnagar), Bio (a detailed description of DevSearch's purpose), Short intro (software dev), a Profile image section with a placeholder image and file selection, and a Social github section with a GitHub URL input field.

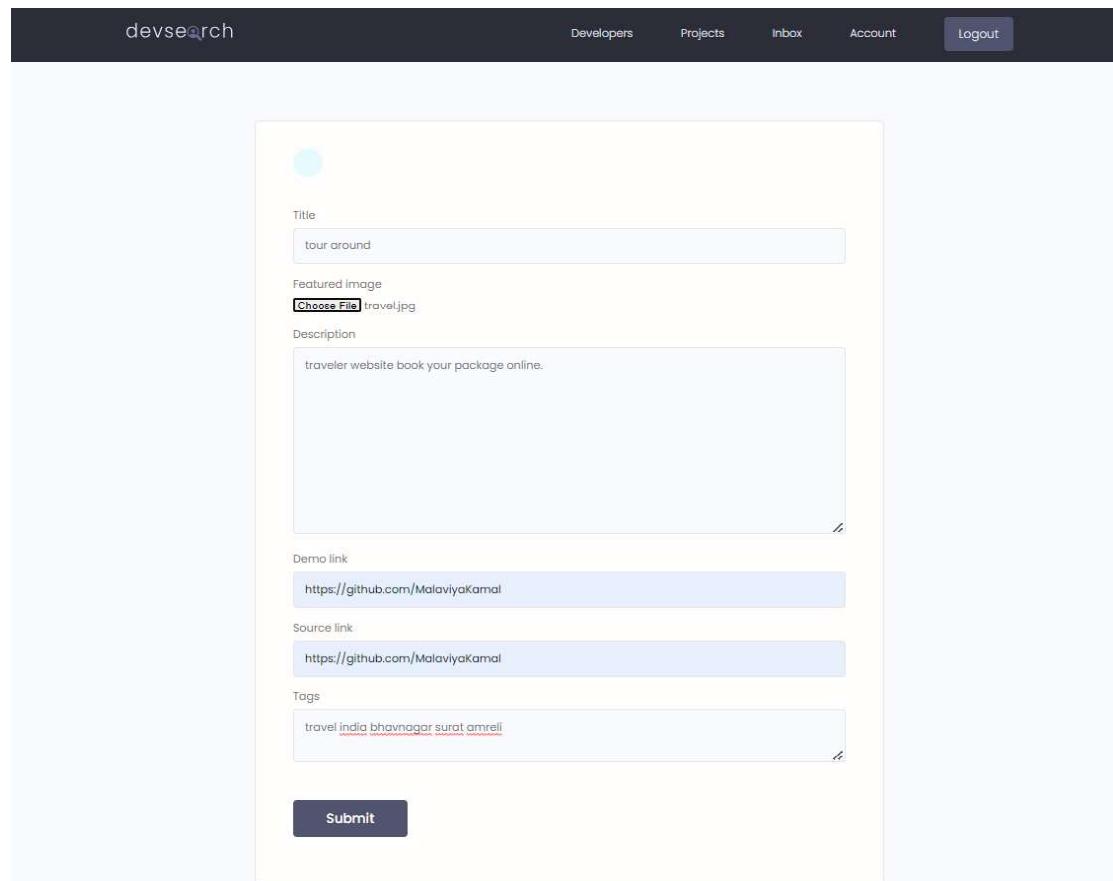


The screenshot shows a simple project creation form on the devsearch platform. The form includes fields for Name (html/css) and Description (this nice to design web page), with a Submit button at the bottom.

Name: html/css

Description: this nice to design web page

Submit



The screenshot shows a more complex project creation form on the devsearch platform. It includes fields for Title (tour around), Featured image (Choose File travel.jpg), Description (traveler website book your package online.), Demo link (<https://github.com/MalaviyaKamal>), Source link (<https://github.com/MalaviyaKamal>), and Tags (travel india bhavnagar surat amravati).

Title: tour around

Featured image: Choose File travel.jpg

Description: traveler website book your package online.

Demo link: <https://github.com/MalaviyaKamal>

Source link: <https://github.com/MalaviyaKamal>

Tags: travel india bhavnagar surat amravati

Submit

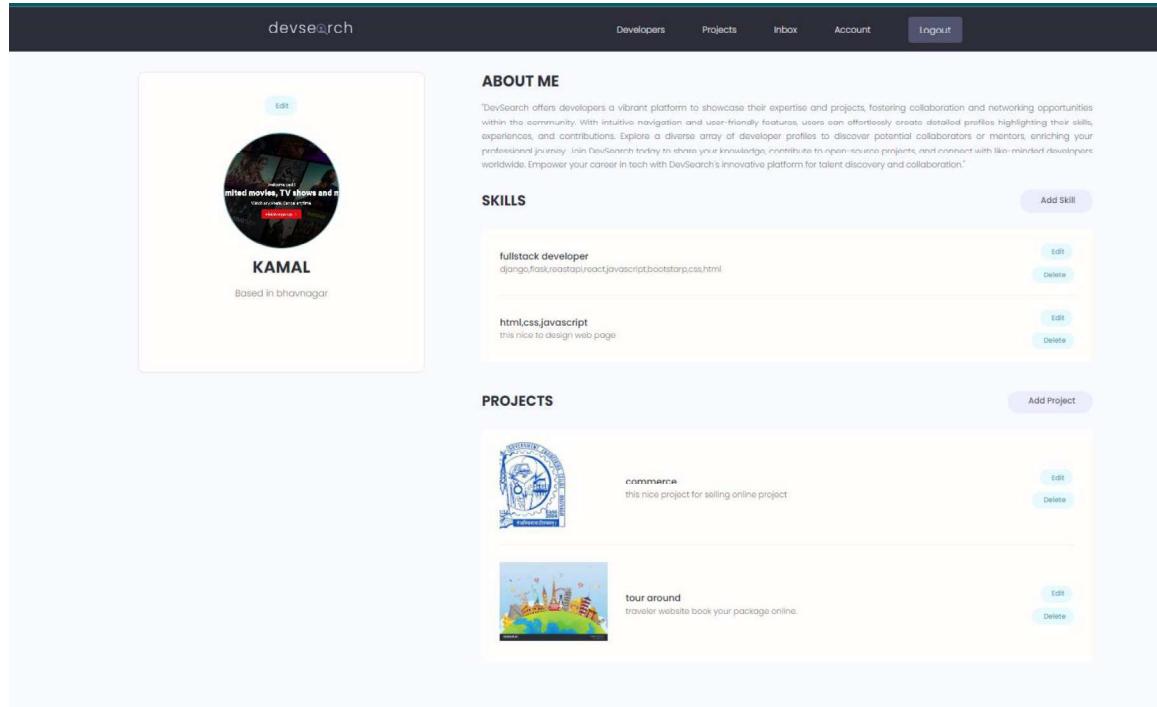


Fig 6.3.8 current user login all account detail and create skill,project

Description: Empower your development journey with our comprehensive account page. Upon login, developers gain access to a personalized hub where they can effortlessly manage their profile, projects, skills, and about section. Seamlessly create and update your profile to showcase your expertise. Share your latest projects with the community and highlight your skills to stand out. Craft a compelling 'about' section to let others know more about you. With our intuitive interface, taking control of your developer presence has never been easier

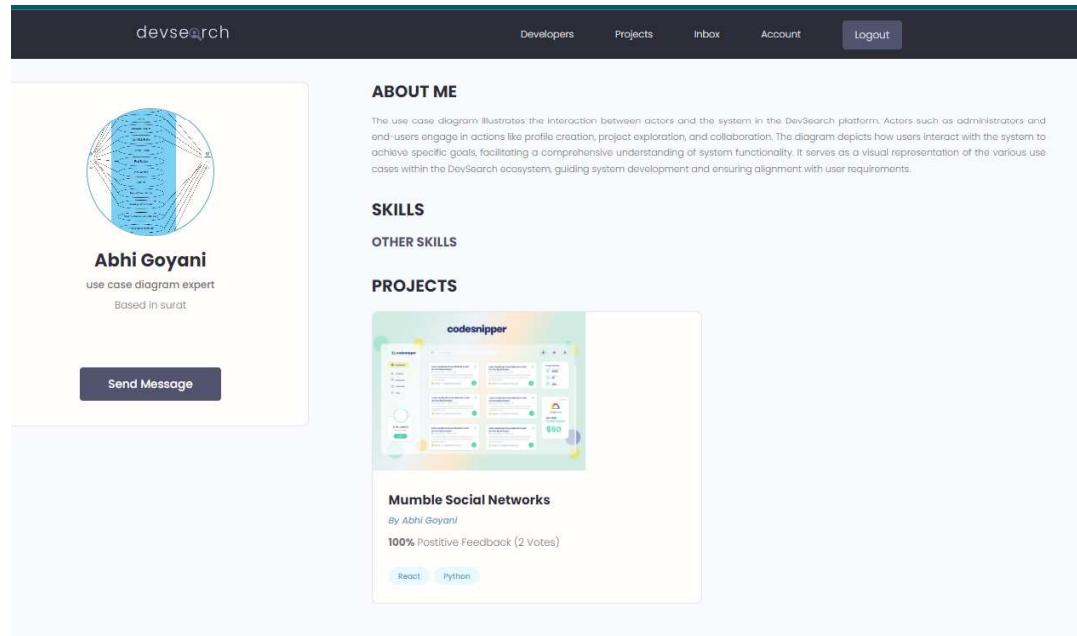
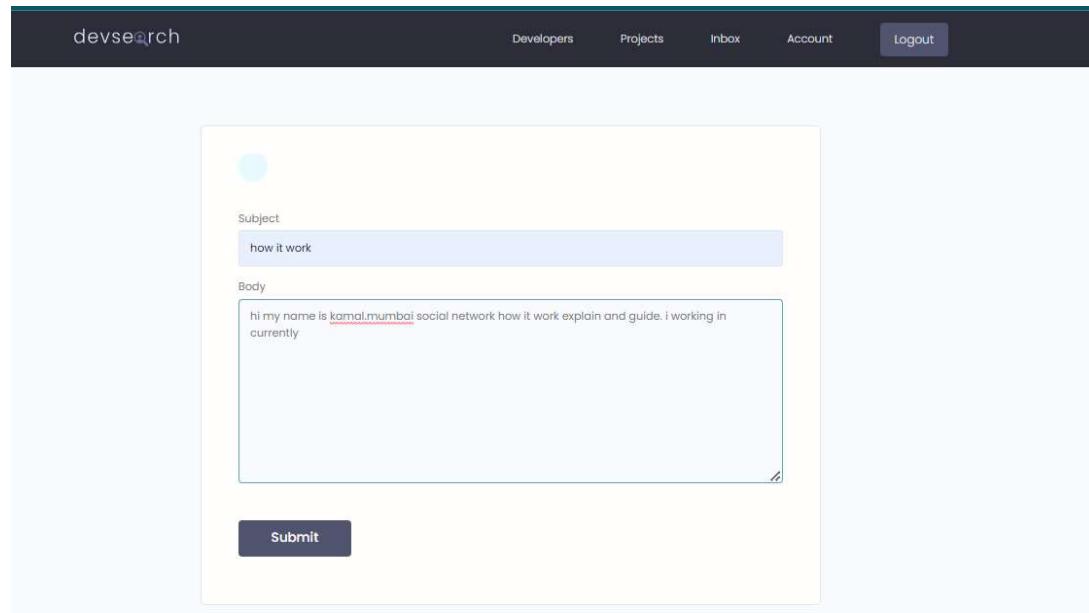


Fig 6.3.9 Developer(other) profile page detail

Description: Discover the Developer Profile Page exploring the expertise and projects of talented developers. Here, users can delve into comprehensive details, including the developer's name, bio, skills, and showcased projects. Gain insights into their proficiency and contributions, empowering seamless collaborations and connections within the community.



The top screenshot displays a list of new messages. The first message is from 'KAMAL' with the subject 'how it work' and timestamp 'April 9, 2024, 9:37 a.m.'. The second message is from 'mani' with the subject 'gshd' and timestamp 'March 5, 2024, 7:14 a.m.'.

The bottom screenshot shows a detailed view of the message from 'KAMAL'. The message title is 'how it work'. It was sent by 'KAMAL' on 'April 9, 2024, 9:37 a.m.'. The message content is: 'hi my name is kamal.mumbai social network how it work explain and guide. I working in currently'.

Fig 6.3.10 developer any login and any query to send message

Description: Engage in seamless developer-to-developer communication with our messaging feature. Easily send queries, share insights, and collaborate on problem-solving. Whether it's seeking advice or brainstorming solutions, our platform fosters efficient and effective communication to elevate your development journey.

The screenshot shows a message composition form. The recipient's information is pre-filled: Name 'gec bhavnagar' and Email 'gecbvn@gmail.com'. The subject is 'explain your project ecommerce.' The message body contains the text: 'In our project, the cart functions as a virtual basket where users can conveniently add desired items for purchase. Upon checkout, the payment process seamlessly integrates, offering various secure payment options. Through meticulous implementation, our system ensures a smooth transaction experience, enhancing user satisfaction and trust in our platform|'. At the bottom is a 'Submit' button.

The figure consists of three vertically stacked screenshots of the devsearch platform. The top screenshot shows a developer profile for 'KAMAL' (software dev, based in Bhavnagar). It includes sections for 'ABOUT ME', 'SKILLS' (fullstack developer, django, flask, nodejs, react, javascript, bootstrap, css, html), 'OTHER SKILLS', and 'PROJECTS' (a thumbnail for a project titled 'commerce' by KAMAL, with 0% positive feedback and tags: online, selling, product, ecommerce). A green banner at the top says 'Your message was successfully sent!'. The middle screenshot shows a list of 'NEW MESSAGES(1)' from users gec_bhavnagar, purva, goti, and vivek, with their respective messages and timestamps. The bottom screenshot shows a message compose screen with fields for 'subject', 'name', 'email', 'date&time' (April 9, 2024, 9:44 a.m.), and 'message' containing a detailed description of an ecommerce project's payment system.

Fig 6.3.11 guest user without login and any query to send message

Description: In our platform, guest users have the privilege to browse projects and raise queries seamlessly without the need for login. Through a user-friendly interface, they can send messages directly to developers, facilitating efficient communication. Developers receive these messages via email, ensuring prompt responses and fostering productive interactions, even without an active login.

Chapter 7

7. TESTING

- 7.1 Testing Plan**
 - 7.2 Testing Phases**
 - 7.3 Testing Strategy**
 - 7.4 Testing Cases**
-

TESTING

7.1 Testing Plan

7.1.1 Objective:

The testing plan for DevSearch aims to validate functionality, reliability, and security pre-launch. It ensures all features work seamlessly, user data is secure, and performance meets expectations. Objectives include feature validation, reliability assessment, security testing, and performance evaluation. Through rigorous testing, DevSearch aims to deliver a robust platform for developers, ensuring a seamless user experience.

7.1.2 Scope:

The testing scope for the DevSearch project spans all its components, covering frontend interfaces, API functionalities, user workflows, and administrative features. It aims to meticulously identify and resolve any discrepancies or issues across the entire platform, ensuring reliability, security, and optimal performance for all users. This comprehensive approach guarantees a seamless and satisfying experience for developers engaging with the DevSearch platform.

7.1.3 Tools and Frameworks:

The testing phases for DevSearch will utilize a tailored selection of tools and frameworks to ensure thorough testing across its Django-based platform:

1. pytest: Utilized for unit testing, ensuring the reliability and functionality of individual components.
2. Selenium WebDriver: Utilized for automated UI testing to validate user interactions and workflows seamlessly.
3. SQLMap: Deployed for comprehensive database security testing to identify and mitigate potential vulnerabilities within the Django application.
4. Locust: Utilized for load testing, assessing the application's performance under various user loads

7.1.4 Testing Documents:

Comprehensive documentation will be maintained throughout the testing phases of DevSearch, encompassing detailed test cases, exhaustive test plans, and meticulous test results. Regular reviews and updates of testing documentation will ensure alignment with evolving platform features and testing requirements, guaranteeing accuracy and reliability throughout the testing process.

7.1.5 Testing Schedule:

Testing activities for DevSearch will be meticulously scheduled throughout the development lifecycle, ensuring timely identification and resolution of issues.

Each testing phase will occur iteratively, aligning with development milestones to maintain a proactive approach towards quality assurance. Scheduled testing iterations will coincide with key development stages, allowing for continuous feedback and refinement of the DevSearch platform to ensure its robustness and reliability.

7.2 Testing Phases

Test cases will be designed to cover both positive and negative scenarios, ensuring comprehensive test coverage across all phases. Automated testing tools will be used to streamline testing efforts and ensure consistency in test execution. Testing activities will be conducted iteratively throughout the development lifecycle, with continuous testing integrated into the development process.

7.2.1 Testing Environment:

Testing will be conducted in a dedicated testing environment separate from the production environment to prevent disruption to live services.

The testing environment will replicate the production environment as closely as possible to ensure accurate test results and minimize discrepancies.

7.3 Testing Strategy

Table 7.3.1: Testing Strategy

Testing Phase	Description	Tools and Frameworks	Focus Areas
Unit Testing	Testing individual components, functions, and modules of the Flask backend in isolation.	pytest	Input validation, response status codes, data integrity
Integration Testing	Validating interactions between different backend modules and ensuring seamless integration of Jinja templates.	Pytest playwright	Communication between modules, template rendering, data exchange
End-to-End (E2E) Testing	Simulating user interactions and workflows across the entire platform.	Playwright	User journeys, UI interactions, form submissions, navigation
Performance Testing	Assessing system responsiveness and throughput under varying load conditions.	Locust	Response times, throughput, resource utilization
Security Testing	Identifying and mitigating potential vulnerabilities within the platform.	SQLMap	SQL injection, data encryption, authentication bypass
User Acceptance Testing (UAT)	Validating the platform's usability, functionality, and performance against user requirements.	Manual testing with stakeholders	Usability, functionality, performance
Regression Testing	Ensuring recent code changes or feature additions do not introduce regressions or break existing functionality.	pytest	Core functionalities, critical user journeys, areas prone to regression

7.4 Testing Cases

Testing: - Software testing is a critical element of software quality assurance and represents the ultimate review or specification, design and code generation.

Table 7.4.1 Test Case 01 – signup(Registration)

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCSU -001	User Signup	1. Navigate to the signup page.2. Fill in valid user registration details.3. Click on the signup button.	User registration details (Name, Email, Password, etc.)	User account created successfully with a success message displayed.	User account created successfully with success message displayed.	Pass
TCSU -002	Blank Fields Check	1. Navigate to the signup page.2. Leave one or more required fields blank.3. Click on the signup button.	Incomplete user registration details	Display appropriate error message for each blank field.	Appropriate error messages displayed for each blank field.	Pass
TCSU -003	Invalid Email Format	1. Navigate to the signup page.2. Enter an invalid email format (e.g.,	Invalid email formats	Show error message prompting for a valid email format.	Error message displayed for invalid email format.	Pass

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
		missing '@' symbol).3. Click on the signup button.				
TCSU -004	Password Length Check	1. Navigate to the signup page.2. Enter a password shorter than the required length.3. Click on the signup button.	Short password	Provide error message indicating the minimum required password length.	Error message displayed for short password.	Pass
TCSU -005	Existing Email Check	1. Navigate to the signup page.2. Enter an email that is already registered in the system.3. Click on the signup button.	Existing user email	Display an error message indicating that the email is already in use.	Error message displayed for existing email.	Pass
TCSU -006	Successful Redirect	1. After successful signup, redirect to the user profile page.2. Check if the user is redirected correctly.	User profile page URL	Ensure the user is redirected to the profile page after signup.	User is redirected to the profile page as expected.	Pass

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCSU -007	Account Verification	1. After signup, check for account verification steps (if any).2. Follow the verification process.3. Verify if the account is activated or needs further steps for activation.	Account verification process	Account is activated upon successful verification process.	Account is successfully activated.	Pass
TCSU -008	Database Entry	1. After successful signup, check the database for the new user entry.2. Verify if all user details are correctly saved in the database.	New user details in the database	Confirm that all user details are accurately stored in the database.	User details are correctly saved in the database.	Pass

Table 7.4.2 Test Case 02 – Login

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCLO -001	User Login	1. Navigate to the login page.2. Enter valid user login credentials.3 . Click on the login button.	User login credentials	User is logged in successfully and redirected to the dashboard.	User is logged in and redirected to the dashboard.	Pass
TCLO -002	Blank Fields Check	1. Navigate to the login page.2. Leave the email or password field blank.3. Click on the login button.	Empty email or password	Display appropriate error message for each blank field.	Error messages displayed for empty fields.	Pass
TCLO -003	Invalid Email Format	1. Navigate to the login page.2. Enter an invalid email format (e.g., missing '@' symbol).3. Click on the login button.	Invalid email format	Show error message prompting for a valid email format.	Error message displayed for invalid email format.	Pass
TCLO -004	Incorrect Password	1. Navigate to the login page.2. Enter a valid email and an incorrect password.3. Click on the login button.	Valid email, incorrect password	Display error message for incorrect password.	Error message displayed for incorrect password.	Pass
TCLO -005	Nonexistent User	1. Navigate to the login page.2. Enter an email that	Nonexistent email	Show error message indicating that the	Error message displayed for	Pass

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
		does not exist in the system.3. Click on the login button.		user does not exist.	nonexistent user.	
TCLO -006	Successful Redirect	1. After successful login, check if the user is redirected to the intended page.	Successful login	Ensure the user is redirected to the dashboard or profile page.	User is redirected to the expected page after login.	Pass
TCLO -007	Session Persistence	1. Log in to the system.2. Close the browser or log out.3. Reopen the browser and check if the user remains logged in.	Logged-in session	Verify the session persists after closing and reopening browser.	User remains logged in after closing and reopening.	Pass

Table 7.4.3 Test Case 03 – Forgot password

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCP-001	Navigate to Forget Password Page	1. Navigate to the login page.2. Find and click on the "Forgot Password?" link.3. Redirected to the forget password page.	N/A	Forget password page is accessible and displayed correctly..	As expected	Pass
TCP-002	Enter Email	1. On the forget password page, locate the email input field.2. Enter a valid email address associated with	Valid email address	User receives a password reset link via email.	As expected	Pass

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
		the account.3. Click on the "Reset Password" button.email or password field blank.3. Click on the login button.				
TCP-003	Check Email	1. Check the inbox of the provided email address.2. Look for an email from the platform containing the password reset link.3. Click on the reset link within the email.	Email inbox	User is directed to a page where they can reset their password.	As expected	Pass
TCP-004	Set New Password	1. On the password reset page, enter a new password.2. Confirm the new password by re-entering it.3. Click on the "Reset Password" button.	New password	Password is successfully reset and user is redirected to login.	As expected	Pass
TCP-005	Login with New Password	1. Attempt to log in using the newly set password.2. Enter the email address associated with the account.3. Enter the new password.4. Click on the "Login" button.	Email address and New password	User is able to successfully log in with the new password.	As expected	Pass

Table 7.4.4 Test Case 04 – Create profile

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCP-001	Navigate to Profile Page	1. Log in to the platform.2. Navigate to the profile page by clicking on the profile icon.	User login credentials	Profile page is accessible and displayed correctly.	As expected	PASS
TCP-002	Fill in Profile Details	1. On the profile page, locate the edit profile section.2. Fill in valid profile details (name, email, etc.).3. Save changes.	Valid profile information	Profile details are saved successfully.	As expected	PASS
TCP-003	Upload Profile Picture	1. Find the option to upload a profile picture.2. Upload a valid image file as a profile picture.3. Save changes.	Valid image file	Profile picture is uploaded and displayed correctly.	As expected	PASS
TCP-004	Add Bio	1. Locate the bio section on the profile	Bio text	Bio is saved and displayed on the	As expected	PASS

		page.2. Write a brief bio or description about yourself.3. Save changes.		profile page.		
TCP-005	Connect Social Media	1. Look for the option to connect social media accounts.2. Link relevant social media profiles (e.g., LinkedIn, GitHub).3. Save changes.	Social media URLs	Social media profiles are successfully linked to the profile.	As expected	PASS

Table 7.4.5 Test Case 05 –update profile

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCU-001	Navigate to Profile Update Page	1. Log in to the platform.2. Navigate to the profile update page by clicking on the profile icon.3. Click on the "Edit Profile" or similar button.	User login credentials	Profile update page is accessible and displayed correctly.	As expected	PASS

TCU-002	Update Personal Information	1. On the profile update page, locate the personal information section.2. Update any desired personal information fields (e.g., name, email, location).3. Click on the "Save Changes" or similar button.	Updated personal information	Personal information is successfully updated and reflected on the profile page.	As expected	PASS
TCU-003	Change Profile Picture	1. Find the option to change the profile picture.2. Upload a new valid image file as the profile picture.3. Click on the "Save Changes" or similar button.	New valid image file	Profile picture is successfully changed and displayed correctly.	As expected	PASS
TCU-004	Edit Bio	1. Locate the bio section on the profile update page.2. Edit the existing bio or add a new one.3. Click on the "Save Changes" or similar button	Updated bio text	Bio is successfully edited and displayed on the profile page.	As expected	PASS

TCU-005	Update Social Media Links	1. Look for the option to update social media links.2. Edit or add relevant social media URLs (e.g., GitHub, LinkedIn).3. Click on the "Save Changes" or similar button.	Updated social media URLs	Social media links are successfully updated and reflected on the profile.	As expected	PASS
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Table 7.4.6 Test Case 06 –create project

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCP-001	Navigate to Create Project Page	1. Log in to the platform.2. Navigate to the "Create Project" page.3. Click on the "Create Project" button or similar option.	User login credentials	"Create Project" page is accessible and displayed correctly.	As expected	PASS
TCP-002	Fill in Project Details	1. On the "Create Project" page, fill in all the required project details (title, description, demo link, source link, tags, etc.).2. Ensure all	Valid project information	Project details are saved successfully and user is redirected to the project page.	As expected	PASS

		mandatory fields are completed.3. Click on the "Save" or "Submit" button.				
TCP-003	Upload Featured Image	1. Find the option to upload a featured image for the project.2. Upload a valid image file as the featured image.3. Click on the "Save" or "Submit" button.	Valid image file	Featured image is uploaded and displayed correctly on the project page.	As expected	PASS
TCP-004	Add Demo Link	1. Locate the field to add the demo link for the project.2. Enter a valid demo link (if applicable).3. Click on the "Save" or "Submit" button.	Valid demo link	Demo link is added and displayed correctly on the project page (if applicable).	As expected	PASS
TCP-005	Add Source Link	1. Find the field to add the source link for the project.2. Enter a valid source link (if applicable).3. Click on the "Save" or	Valid source link	Source link is added and displayed correctly on the project page (if applicable).	As expected	PASS

		"Submit" button.				
TCP-006	Add Tags	1. Locate the field to add tags for the project.2. Enter relevant tags that describe the project (e.g., programming languages, frameworks).3. Click on the "Save" or "Submit" button.	Relevant project tags	Tags are added and displayed correctly on the project page.	As expected	PASS

Table 7.4.7 Test Case 07 –update project

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TPU-001	Navigate to Edit Project Page	1. Log in to the platform.2. Navigate to the "Projects" section.3. Find the project to be edited.4. Click on the project to open its details page.5. Click on the "Edit" or similar option.	User login credentials	The project's details page should display correctly with an option to edit the project.	As expected	PASS
TPU-002	Update Project	1. On the project's edit	Updated project	Project details	As expected	PASS

	Details	page, update any relevant project details (title, description, demo link, source link, tags, etc.).2. Ensure all necessary fields are filled.3. Click on the "Save" or "Update" button.	information	should be updated successfully and saved.		
TPU-003	Change Featured Image	1. Find the option to change the featured image for the project.2. Upload a different valid image file as the featured image.3. Click on the "Save" or "Update" button.	Valid image file	The featured image should be updated with the newly uploaded image.	As expected	PASS
TPU-004	Update Demo Link	1. Locate the field to update the demo link for the project.2. Enter a new valid demo link (if applicable).3. Click on the "Save" or "Update"	New valid demo link	The demo link should be updated with the new link provided.	As expected	PASS

		button.				
TPU-005	Update Source Link	1. Find the field to update the source link for the project.2. Enter a new valid source link (if applicable).3. Click on the "Save" or "Update" button.	New valid source link	The source link should be updated with the new link provided.	As expected	PASS
TPU-006	Update Tags	1. Locate the field to update the tags for the project.2. Modify the existing tags or add/remove tags as necessary.3. Click on the "Save" or "Update" button.	Modified/ additional project tags	The tags should be updated accordingly and displayed correctly.	As expected	PASS

Table 7.4.8 Test Case 08 –delete project

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TDP-001	Navigate to Delete Page	1. Log in to the platform.2. Navigate to the "Projects" section.3. Find the project to be	User login credentials	The project's details page should display correctly with an option to	As expected	PASS

		deleted.4. Click on the project to open its details page.5. Look for an option to delete the project.6. Click on the "Delete" or similar option.		delete the project.		
TDP-002	Confirm Deletion Prompt	1. On clicking the delete option, a confirmation prompt should appear asking for confirmation to delete the project.2. Confirm the deletion by clicking on the "Delete" or similar option on the prompt.	N/A	A confirmation prompt should appear asking for confirmation before deleting the project.	As expected	PASS
TDP-003	Verify Project Deletion	1. After confirming the deletion, navigate back to the project listing page or refresh the page.2. Verify that the deleted project is no longer listed on the projects page.	N/A	The deleted project should not be visible or listed on the projects page after deletion.	As expected	PASS

TDP-004	Check Project Details	1. Verify that all project details (title, description, links, etc.) are deleted along with the project. 2. links related to the deleted project.	N/A	All project details should be completely removed from the database and platform after deletion.	As expected	PASS
TDP-005	Verify Vote Count	1. Check the vote count of the deleted project. 2. Verify that the vote count is decremented by one.	N/A	The vote count of the deleted project should be decremented by one if the project had any votes.	As expected	PASS
TDP-006	Check Tag Usage	1. Check the usage of tags associated with the deleted project. 2. Ensure that the tags are removed from the database if they are not used by any other project. 3. If tags are still in use, verify that they are correctly associated with other projects.	N/A	Tags associated with the deleted project should be removed from the database if not used by any other project.	As expected	PASS

Table 7.4.9 Test Case 09 –create skill

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCSK-001	Navigate to Skill Creation Page	1. Log in to the platform.2. Navigate to the "Skills" section.3. Look for an option to create a new skill.4. Click on the option to create a new skill.	User login credentials	The skill creation page should be accessible without errors.	As expected	PASS
TCSK-002	Enter Skill Details	1. On the skill creation page, fill in the required details for the new skill, including name and description.2. Ensure all mandatory fields are filled.3. Optionally, add additional details if applicable.	Skill details (Name, Description)	The skill details should be entered accurately and completely.	As expected	PASS
TCSK-003	Submit Skill Creation	1. After entering all required skill details, submit the skill creation	Completed skill creation form	A confirmation message or success indicator should be displayed,	As expected	PASS

		form.2. Look for a message that the skill has been successfully created.		indicating successful skill creation.		
TCSK-004	Verify Skill Creation	1. Navigate to the user's profile or dashboard where the list of skills is displayed.2. Look for the newly created skill in the list.3. Verify that the created skill details match the entered information during creation.	User profile or dashboard	The newly created skill should be listed with accurate details as entered during the creation process.	As expected	PASS
TCSK-005	Check Skill Owner	1. Verify that the owner of the newly created skill is correct and matches the user who created it.2. Ensure that no unauthorized user can create a skill on behalf of another user.	Owner information	The owner of the skill should be correctly attributed to the user who created it.	As expected	PASS

Table 7.4.10 Test Case 10 –update skill

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCUSK-001	Navigate to Skill Update Page	1. Log in to the platform.2. Navigate to the "Skills" section.3. Find the skill that needs to be updated.4. Click on the skill to open its details.5. Look for an option to edit or update the skill.6. Click on the option to update the skill.	User login credentials	The skill update page should be accessible without errors.	As expected	PASS
TCUSK-002	Modify Skill Details	1. On the skill update page, modify the necessary details for the skill, such as name and description.2 . Ensure all changes are accurately reflected in the update form.	Modified skill details	The skill details should be updated accurately and completely.	As expected	PASS
TCUSK-003	Submit Skill	1. After making all required	Updated skill details	A confirmation message	As expected	PASS

	Update	modification s, submit the skill update form.2. Look for a confirmation message or indication that the skill has been successfully updated.		or success indicator should be displayed, indicating successful skill update.		
TCUSK-004	Verify Skill Update	1. Navigate to the user's profile or dashboard where the list of skills is displayed.2. Find the updated skill in the list.3. Verify that the skill details (name, description, etc.) match the modified information after the update.	User profile or dashboard	The updated skill should be listed with accurate details as modified during the update process.	As expected	PASS

Table 7.4.11 Test Case 11—delete skill

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TCDS-001	Navigate to Delete Skill Page	1. Log in to the platform.2. Navigate to the "Skills" section.3.	User login credentials	The delete skill page should be accessible without	As expected	PASS

		Find the skill that needs to be deleted.4. Click on the skill to open its details. 5. Click on the option to delete the skill.		errors.		
TCDS-002	Confirm Skill Deletion	1. On the delete skill page, confirm the intention to delete the skill.2. Look for a confirmation dialog or confirmation message.3. Confirm the deletion action.	Confirmation dialog/message	A confirmation message or dialog should appear, asking for confirmation to delete the skill.	As expected	PASS
TCDS-003	Verify Skill Deletion	1. After confirming the deletion, navigate back to the user's profile or dashboard where the list of skills is displayed.2. Ensure that the deleted skill is no longer present in the list.	User profile or dashboard	The deleted skill should no longer be listed, indicating successful deletion.	As expected	PASS

Table 7.4.12 Test Case 12—Create Review

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TSCR-001	Navigate to Review Creation Page	1. Log in to the platform.2. Navigate to the page where reviews can be created (e.g., product detail page, service detail page).3. Find the option to write a review.4. Click on the option to write a review.	User login credentials	The review creation page should be accessible without errors.	As expected	PASS
TSCR-002	Fill Review Form	1. On the review creation page, fill in the required fields such as title, description, rating, etc.2. Provide valid input for each field.3. Optionally, provide additional details or comments.4. Submit the review form.	Review details (title, description, rating, etc.)	The review should be successfully submitted without any errors.	As expected	PASS
TSCR-003	Verify Review	1. After submitting the review	Page where review	The newly created review	As expected	PASS

	Creation	form, navigate back to the page where the review was created.2. Look for the newly created review.3. Verify that all the details provided in the review form are correctly displayed.	was created	should be displayed with all the details accurately represented .		
TSCR-004	Check Review Owner	1. Check the owner or author of the newly created review.2. Ensure that the owner of the review is correctly identified and matches the logged-in user who created it.	Owner/Author of the review	The owner of the review should match the logged-in user who created it.	As expected	PASS

Table 7.4.13 Test Case 13—Create Review

Step	Test Case Description	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
TSCM-001	Navigate to Message Creation Page	1. Log in to the messaging platform.2. Navigate to the page where messages can be	User login credentials	The message composition page should be accessible without errors.	As expected	PASS

		composed or created (e.g., inbox, message center).3. Find the option to compose a new message.4. Click on the option to compose a new message.				
TSCM-002	Fill Message Form	1. On the message composition page, fill in the required fields such as recipient, subject, and body.2. Provide valid input for each field.3. Optionally, attach files or add additional details.4. Send the message by submitting the form.	Message details (recipient, subject, body)	The message should be successfully sent without any errors.	As expected	PASS
TSCM-003	Verify Sent Message	1. After sending the message, navigate to the sent items or outbox.2. Look for the newly sent	Page where sent message is displayed	The newly sent message should be displayed with all the details accurately represented.	As expected	PASS

		message.3. Verify that all the details provided in the message form are correctly displayed.4. Check for attachments, if any, to ensure they are included.				
TSCM-004	Check Message Recipient	1. Check the recipient of the newly sent message.2. Ensure that the recipient of the message is correctly identified and matches the intended recipient specified during composition	Recipient of the message	The recipient of the message should match the intended recipient specified during composition .	As expected	PASS

Chapter 8

8. CONCLUSION AND DISCUSSION

8.1 Overall Analysis of Internship

8.2 Problem Encountered and possible solutions

8.3 Summary of Internship

8.4 Limitation and future Work

CONCLUSION AND DISCUSSION

8.1 Overall Analysis of Internship

The internship at La Net Team Software Solutions Pvt. LTD. has been invaluable, providing practical exposure to real-world software development projects. From planning to testing, I gained hands-on experience in development with Flask.

Working with cutting-edge technologies like django, Sql, JS and Jinja expanded my technical knowledge and adaptability for future projects.

Collaborating with experienced developers and project managers within the team has been instrumental in my professional growth. I had the chance to learn from their expertise, receive constructive feedback on my work, and contribute effectively to the project's success.

Furthermore, the internship provided me with insights into agile development methodologies, emphasizing iterative development and continuous improvement. This approach fostered a dynamic and collaborative work environment, enabling efficient problem-solving and decision-making throughout the project.

Overall, the internship improved my technical skills, communication abilities, and understanding of software development processes, preparing me for future endeavors.

8.2 Problem Encountered and possible solutions

- **Problem Encountered:**

1. Developer Discovery: With a growing community, developers might struggle to stand out or connect with relevant projects.
2. Platform Engagement: Encouraging users to actively participate beyond project browsing, fostering discussions, and collaboration.
3. Accessibility to Resources: Providing offline access to essential resources and project documentation for developers in low-connectivity environments.
4. Project Version Control: Managing updates and revisions to projects, ensuring transparency and accuracy across different versions.

- Possible Solutions:**

1. Enhanced Developer Discovery: Implement advanced search and filtering options based on developer skills, project types, and technology stacks. Enable developers to create detailed profiles showcasing their expertise and project portfolio.
2. Community Engagement Features: Introduce interactive features such as user profiles, project commenting, and ratings. Foster collaboration through discussion forums, project collaboration requests, and mentorship opportunities.
3. Offline Resource Accessibility: Develop a downloadable resource library containing essential documentation, tutorials, and coding examples. Implement offline mode functionality within the platform to allow access to cached content and essential features without an internet connection.
4. Project Versioning and Management: Introduce a version control system for projects, enabling developers to track changes, revert to previous versions, and view revision history. Implement moderation and review processes for project updates to maintain accuracy and quality assurance.

8.3 Summary of Internship

Table 8.3.1. Summary of project

Project Title	DevSearch
Aim	DevSearch provides a centralized platform for developers to showcase their skills and projects, addressing the challenge of visibility in the expansive software development landscape. By enabling meaningful connections among developers, it fosters collaboration and overcomes obstacles to recognition in the dynamic field of software development.
Developed At	La Net Team Software Solutions Pvt. LTD
Project Category	Web Application

	IDE	PyCharm
Tools	Languages/Frameworks	Python,HTML, Django, Jinja-template, CSS, JavaScript
	Database	SQL
Duration	13 Weeks (16 January 2024 to 16 April 2024)	

8.4 Limitation and Future Work

- **Limitation:**

1. Limited Developer Reach: The platform's outreach may be constrained to certain geographical areas, limiting developer participation.
2. Limited Project Diversity: The variety of projects available on the platform may be restricted, hindering diverse skill development opportunities.
3. dependency on Internet Connectivity: Users may face challenges accessing platform features in areas with limited internet connectivity.
4. Lack of Personalized Recommendations: The absence of personalized project recommendations tailored to individual skills and interests.
5. Incomplete Project Information: Projects may lack comprehensive details, impacting users' ability to make informed decisions.
6. Absence of Collaboration Features: The platform may lack collaborative tools for developers to work on projects collectively.

- **Future Enhancements:**

1. Expanded Geographical Reach: Extending the platform's reach to encompass a wider developer community across diverse regions.
2. Increased Project Diversity: Enhancing the variety of projects available on the platform to cater to a broader range of developer interests and skill levels.
3. Offline Functionality: Introducing features to allow developers to access essential resources and collaborate on projects offline.
4. Personalized Project Recommendations: Implementing algorithms to suggest projects based on developers' skills, interests, and past contributions.
5. Comprehensive Project Information: Providing detailed project descriptions, requirements, and objectives to facilitate informed decision-making for developers.
6. Enhanced Collaboration Tools: Introducing features for developers to collaborate on projects, share resources, and communicate effectively within the platform.

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APPENDIX

Attendance Report

Week wise work Report
