A

INTERNSHIP REPORT

ON **"JAVA PROGRAMMING"**

SUBMITTED TO THE SAVITRIBAI PHULE PUNE UNIVERSITY
IN FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD
OF THE

THIRD YEAR COMPUTER SCIENCE AND DESIGN

BY

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UNDER THE GUIDANCE OF

Prof.R.S.Tambe

DEPARTMENT OF COMPUTER SCIENCE AND DESIGN
DR.VITHALRAO VIKHE PATIL COLLEGE OF ENGINEERING
YEAR 2023-2024

CERTIFICATE

This is to certify that internship report entitled

"JAVA PROGRAMMING"

Is submitted as fulfilment of curriculum of the T.E. of Computer Science and design

BY

MISS.ATHARE SAMRUDDHI SUNIL   SEAT NO:T190099902

Is a bonafide work completed under my guidance in partial fulfillment of the requirements for the Degree in Bachelor of Engineering in Third Year Computer Science & Design Engineering of Savitribai Phule Pune University, Pune in the academic year 2023-2024.
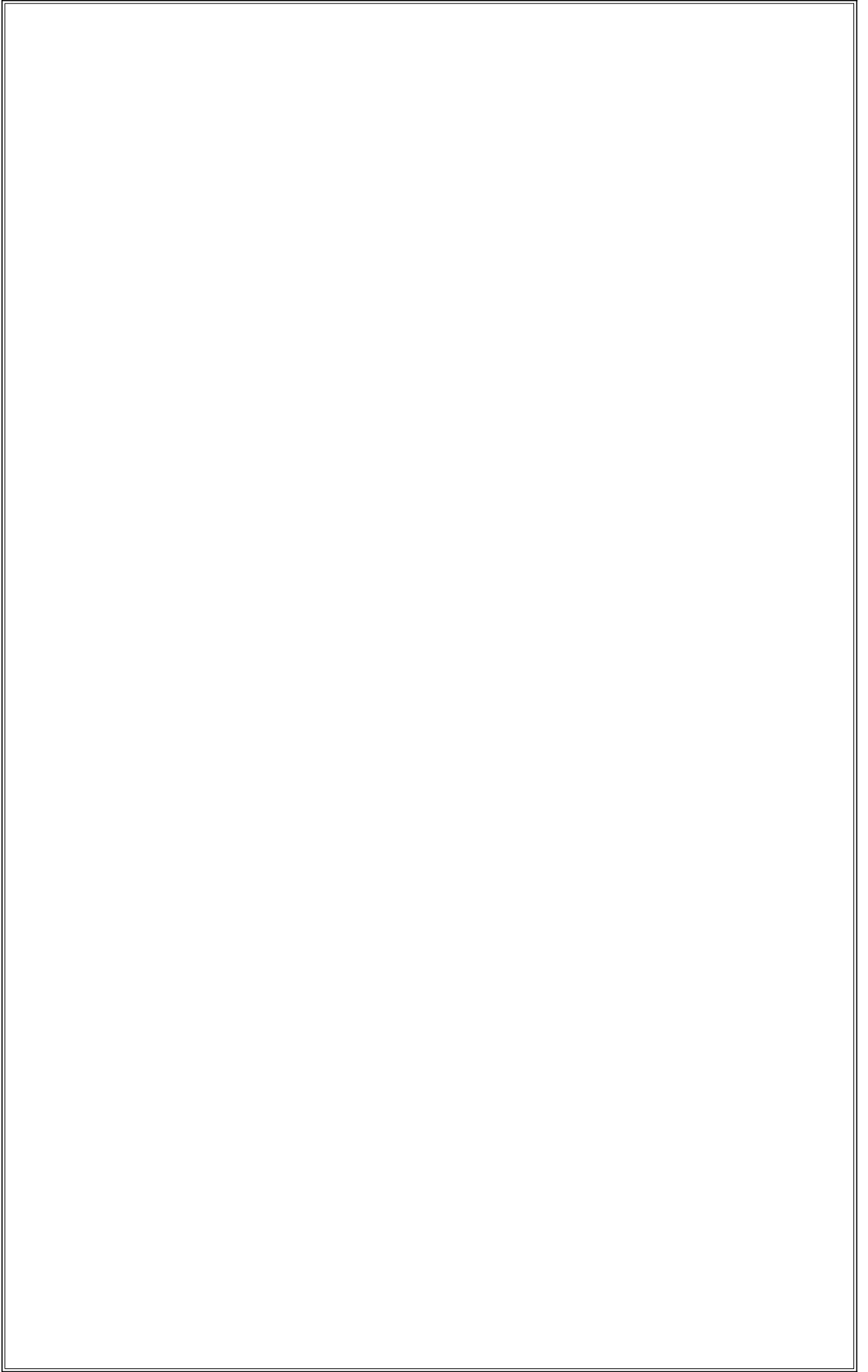
(Prof.R.S.Tambe)   (Prof.S.J.Wamane)   (Prof.R.S.Tambe)
Internship Guide   **Internship Coordinator**   **HOD**

Place: DVVPCOE,A.NAGAR   **Date:**

ABSTRACT

The internship report highlights the major works carried out by the author in terms of academic and non-academic perspectives. The scope of this document is to identify and describe the analysis carried out, projects completed, and experience gained and focuses on the achievements as an intern. The quest to make life easier and processing faster has led to the computerization of various processes. Computer technology has transformed so many sectors especially the Educational sector in no small measure. In an effort to foster technology-driven education, www.vaultofcodes.in has been developing to make a common platform for instructors and students for utilizing their leisure time to share knowledge and increase knowledge. The author was sent to Java Developer to complete his internship. The author found him rather lucky by getting the chance to work in such an environment that java Developers provided and got introduced to some of the new terms, new technologies and new Languages. The projects that the author worked in certainly helped him by increasing his practical knowledge depth. The research and development projects were particularly helpful in widening his views regarding different java application development frameworks.

KEYWORD - *vaultofcodes, java development, New technology of java Development.*

ACKNOWLEDGEMENT

First I would like to thank HR, Head, of **Vaultofcodes** for giving me the opportunity to do an internship within the organization

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I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

MISS.ATHARE SAMRUDDHI SUNIL

TABLE OF CONTENT

Chapter 1

INTERNSHIP COMPANY DETAILS:-

Company Name : vaultofcodes

Contact No : 9011144920

Name Of The Supervisor : Mr. Om Natekar

Email : vaultofcodes@gmail.com

Address : Delhi

Information : VaultofCodes is at the forefront of online education, offering live training programs and courses that span the dynamic landscape of technology. Specializing in Web Development, Data Science and Analytics, UI/UX designing, App Development, Python, and Java Programming, we provide a comprehensive and hands-on learning experience for students and professionals alike.

Chapter 2

INTERNSHIP COMPLETION CERTIFICATE

Fig:Certificate

Chapter 3

INTRODUCTION

Listening is a core communication skill. It's fundamental for effective leadership. Internships are formal programs designed to provide practical experience in real world environment to students who are new to field. Internships help to build competent resume by giving students visible work experience Although colleges and universities assists students in finding the right Internship programs, it is the responsibility of the would-be interns to carefully examine internship programs, and see if those programs actually offer the training they need.

There is no standardized duration for how long an Internship program lasts but typically an Internship is the period of one month. During this period interns have the opportunity to explore their field of interest, find out what future they are diving and whether or not their skill sets match their path of career .Internship program provides a distinct platform to interns to build to their career, understand the workplace culture, gain vital work related experience, develop relevant skills, and also presents the opportunity to find permanent employment in the host company.

Some of the major benefits of Internship program to students include:

   • Students can learn about the workplace culture and gain much needed work experience.

   • Student can finally experience practical implementation of things they have been learning in the classroom

   • Students can build a strong foundation that will bolster their career

   • Good performance in the internship program can secure permanent employment with the host company

   • Some internship programs are paid programs meaning students can earn money while they get necessary exposure.

Chapter-4

PROBLEM/PROJECT STATEMENT

Java Development

During this Java development Internship, we were having 4 tasks , out of which we needed to complete all in every week of them for the Internship completion certification from vaultofcodes

Task 1: Perform a code review on a Java project

Description: Tasked with conducting a code review on a Java project. Code reviews are essential for ensuring code quality, identifying bugs, and promoting best practices within a development team. goal is to thoroughly review the provided codebase and provide constructive feedback to the developer(s).

Requirements:

Check for potential bugs, logic errors, or code smells. Identify any areas where the code could be improved or optimized.

Review comments and documentation within the code. Evaluate whether comments are clear, informative, and up-to-date, and whether documentation adequately explains the purpose and functionality of the code.

Consider the use of appropriate data structures, algorithms, and design patterns. Evaluate whether the code makes efficient use of resources and follows established design principles.

Task 2: Create a basic temperature converter application Description: You are tasked with building a simple temperature converter application using Java. The application should allow users to convert temperatures between Celsius and Fahrenheit.

Requirements:

Create a Java program that prompts the user to enter a temperature value and select the current temperature scale (Celsius or Fahrenheit).

Implement functionality to convert the entered temperature to the other scale based on the user's selection.Display the converted temperature to the user.

Allow the user to perform multiple conversions in a single program run.

Ensure that the program handles user input errors gracefully (e.g., non-numeric inputs, invalid temperature scales).

Write clear and concise code, including comments where necessary to explain your implementation.

Test the program to ensure it works correctly for different input values and temperature scales.

Task 3: Develop a basic To-Do List application Description: You are tasked with creating a simple To-Do List application using Java. The application should allow users to add tasks, mark tasks as completed, view the list of tasks, and remove tasks.
Requirements: Create a Java program that provides a menu-driven interface for interacting with the To-Do List application.

Implement functionality to add tasks to the To-Do List. Each task should have a description and a status (completed or not completed).

Implement functionality to mark tasks as completed or uncompleted based on user input.

Implement functionality to display the current list of tasks, including their descriptions and statuses.

Implement functionality to remove tasks from the To-Do List based on user input. Ensure that the program handles user input errors gracefully (e.g., invalid menu selections, nonexistent tasks).

Write clear and concise code, including comments where necessary to explain your implementation.

Test the program to ensure it works correctly for different operations and scenarios.

Chapter 5

SCOPE AND OBJECTIVE MOTIVATION

Upon successful completion of this module, the student would:

1. Demonstrate the application of knowledge and skill sets acquired from the course and workplace in the assigned job function/s;

2. Solve real life challenges in the workplace by analysing work environment and conditions, and selecting appropriate skill sets acquired from the course;

3. Communicate and collaborate effectively and appropriately with different professionals in the work environment through written and oral means;

4. Exhibit critical thinking and problem solving skills by analysing underlying issue/s to challenges;

5. Demonstrate the ability to harness resources by analysing challenges and considering opportunities;

6. Recommend ideas to improve work effectiveness and efficiency by analysing challenges and considering viable options;

Chapter 6

METHODOLOGICAL DETAILS

JAVA SCRIPT

JavaScript (JS) is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed. It is also being used in server-side programming, game development and the creation of desktop and mobile applications. JavaScript is a prototype-based scripting language with dynamic typing and has first- class functions. Its syntax was influenced by C. JavaScript copies many names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics. The key design principles within JavaScript are taken from the self and Scheme programming languages. It is a multi-paradigm language, supporting object-oriented, imperative, and functional programming styles.

Java Development Tools (JDT):

Eclipse's Java Development Tools (JDT) are among its flagship offerings, providing a comprehensive suite of features for Java developers. These tools encompass advanced code editing capabilities, such as content assist, code templates, and quick fixes, which streamline the coding process and promote code quality. Additionally, JDT integrates seamlessly with popular Java frameworks and libraries, facilitating rapid application development and deployment.

Visual UI Designers::

Eclipse incorporates visual editors and designers that simplify the creation of graphical user interfaces (GUIs) for Java applications. Notable tools include the WindowBuilder plugin, which enables developers to design UI components visually and manipulate them using a drag-and-drop interface. By providing real-time previews and layout customization options, Eclipse accelerates the UI design process and fosters collaboration between designers and developers.

Version Control Integration:

Eclipse offers robust integration with version control systems, allowing developers to manage source code repositories directly from within the IDE. Whether utilizing Git, SVN, CVS, or Mercurial, developers can perform version control operations seamlessly, such as committing changes, synchronizing repositories, and resolving conflicts. This tight integration enhances collaboration and facilitates agile development practices within distributed teams.
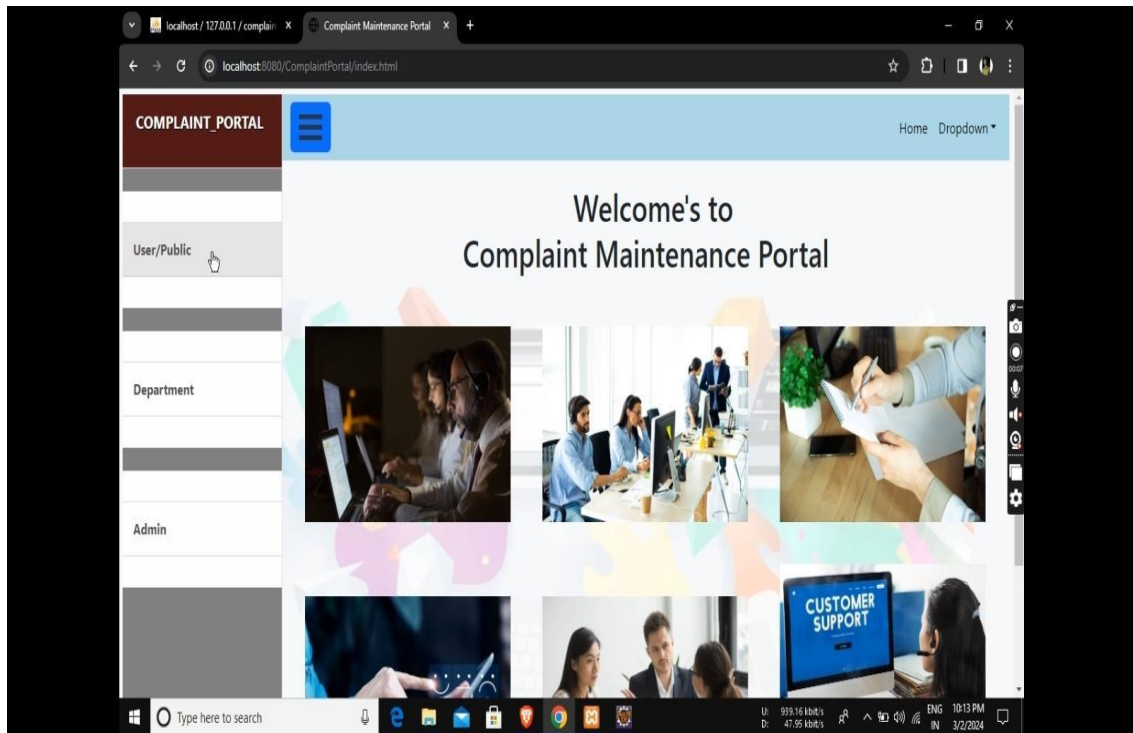
Chapter 7

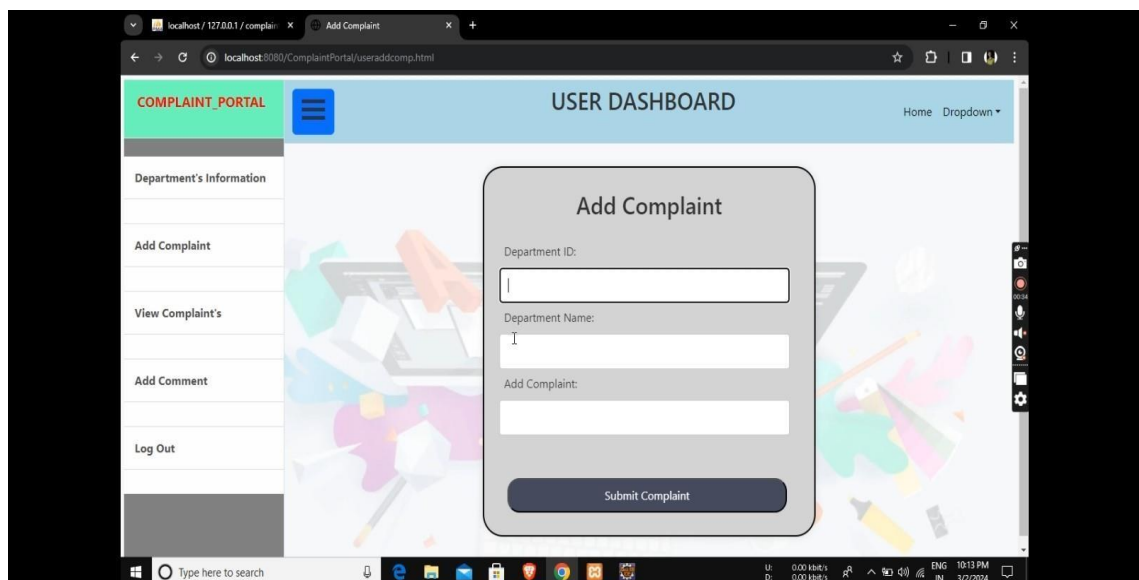## RESULTS-SCREEN SHOT OF PROJECT

Fig.HOME PAGE
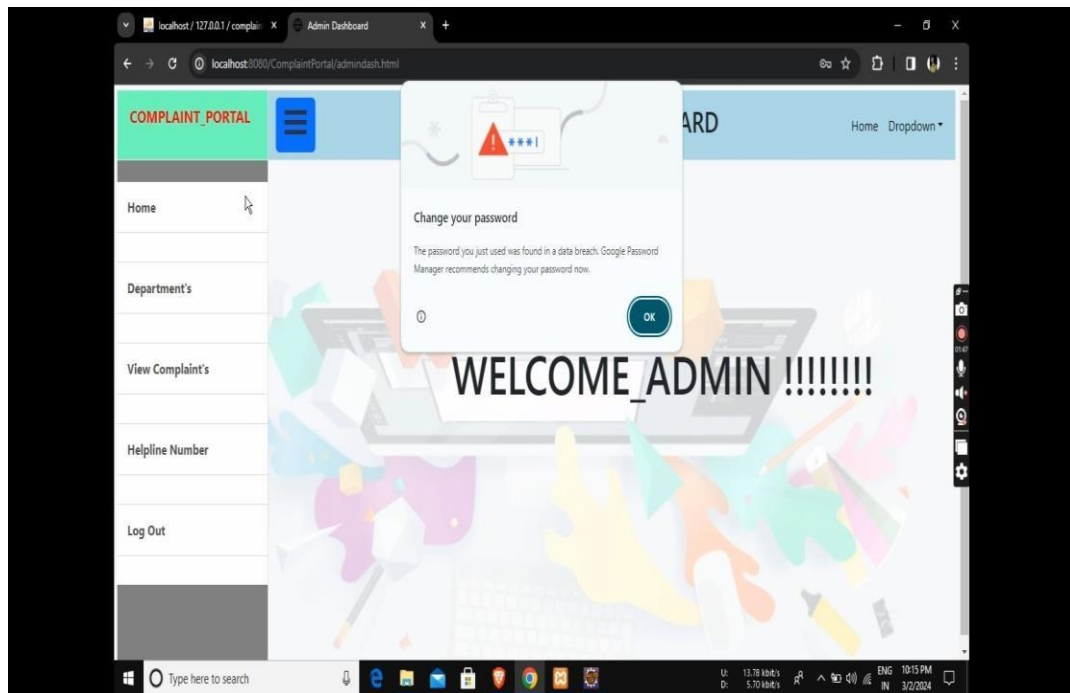

Fig.Dashboard
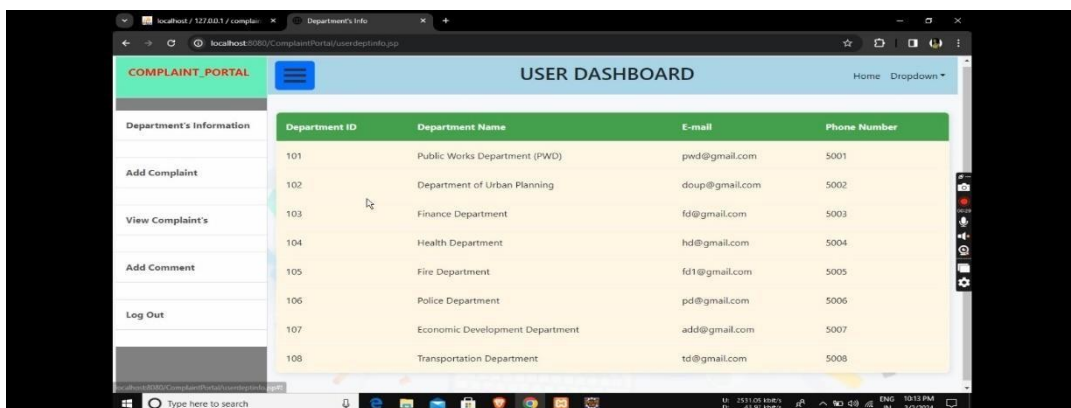
Fig.Admin Page

Fig .User Dashboard 8

Chapter 8

FUTURE SCOPE

Cloud Computing and Microservices:
Explore cloud computing platforms like Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform (GCP), and learn how to build scalable and resilient applications using Java-based microservices architecture.

Data Science and Big Data:
Combine your Java skills with data science and big data technologies like Apache Hadoop, Apache Spark, or Apache Kafka. Java is widely used in big data processing and analytics, offering opportunities in areas such as data engineering and machine learning.

Cybersecurity:
As cybersecurity becomes increasingly important, there is a growing demand for professionals with Java programming skills to develop secure software and applications. Consider specializing in cybersecurity and exploring roles in application security or secure coding practices.

Freelancing and Entrepreneurship:
Use your Java expertise to work as a freelance developer or start your own software development venture. Freelancing offers flexibility and autonomy, allowing you to work on diverse projects and build a portfolio of work.

Further Education:
Use your Java expertise to work as a freelance developer or start your own software development venture. Freelancing offers flexibility and autonomy, allowing you to work on diverse projects and build a portfolio of work.

Chapter 9

CONCLUSION

My internship at Valutofcodes provided an immersive learning experience in Java programming, covering a comprehensive overview of the language and its applications. Through hands-on projects and mentorship, I deepened my understanding of Java syntax, object-oriented programming principles, and data structures.

Moreover, I had the opportunity to apply Java concepts to real-world scenarios, enhancing my problem-solving skills and coding proficiency. From developing standalone applications to contributing to web development projects using Java frameworks, each task broadened my technical expertise and prepared me for future challenges in the field.

Beyond technical skills, this internship also emphasized the importance of teamwork and collaboration in software development. Engaging with peers and mentors, I learned effective communication strategies and project management techniques, fostering a holistic approach to problem-solving.

As I conclude my internship journey, I am grateful for the invaluable experiences and mentorship provided by the team at Valutofcodes. Armed with a solid foundation in Java programming and a wealth of practical insights, I am excited to embark on the next chapter of my career with confidence and enthusiasm.

Chapter 10

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