VISVESVARAYA TECHNOLOGICAL UNIVERSITY,
BELAGAVI

Internship Report

on

"HealthEdge Software Inc."

A report submitted in partial fulfilment of the requirements for the award a degree of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

Submitted by

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Under Supervision of

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Associate Professor

Computer Science and Engineering

ALVA'S
Education Foundation

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MOODBIDRI-574225, KARNATAKA

2023 – 2024

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MOODBIDRI-574225, K A R N A T A K A

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the Internship report on "HealthEdge Software Inc." submitted by JAYESH L KORADE (4AL20CS054) is work done by her and submitted during the academic year 2023–24, in partial fulfilment of the requirements for the award of the degree of BACHELOR OF ENGINEERING in COMPUTER SCIENCE AND ENGINEERING

BP.

Internship Mentor
Department of CSE

BP. 14/5/24.

Internship Coordinator
Department of CSE

Head of the Department
Department of CSE

Examiners

Name	Signature
1)	
2)	

i

Acknowledgement

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to Managing Trustee **Mr. Vivek Alva** and Principal **Dr. Peter Fernandes, Alva' Institute of Engineering and Technology, Mijar** for the facilities provided to accomplish this internship.
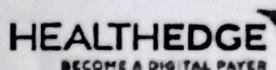
I would like to thank my Head of the Department **Dr. Manjunath Kotari, Professor, Department of Computer Science and Engineering** for his constructive criticism throughout my internship.

I would like to thank my internship Coordinator **Dr. Bramha Prakash H P, Associate Professor, Department of Computer Science and Engineering** for his guidance throughout my internship.

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

JAYESH L KORADE
4AL20CS054

INTERNSHIP CERTIFICATE

HEALTHEDGE
BECOME A DIGITAL PAYER

Date: January 19, 2024
To,
   Jayesh Korade

Cell: 8108675793

Subject: Internship Letter
Dear Jayesh

With reference to application and subsequent selection process, we would like to congratulate you on being selected for internship program at HealthEdge Technologies India Private Limited w.e.f. February 15, 2024 on the following terms & conditions:

1. The period of your internship shall be of 6 months commencing from February 15, 2024 to August 16, 2024.
2. During the said period, you will be paid Rs. 35,000 /- per month per month (less TDS) as stipend & shall not be entitled to any other benefits, allowances, facilities that are applicable to other permanent employees.
3. Your ordinary place of work shall be at the Company's offices in Bangalore/Pune. Your working hours will be from 10:00 AM to 7:00 PM from Monday to Friday. Saturday and Sunday will be weekly off.
4. your point of contact will be Mr. Soma Shekhar .
5. Your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts through hands-on application of the knowledge you learned in class. The project details and technical platform will be shared with you on or before commencement of training.
6. You will abide by rules & regulations of the company enforced from time to time.
7. Your internship will be purely on contractual basis & the same needs to be continued till the completion of internship period.
8. On the day of joining, you will have to sign a 'Non-Disclosure Agreement and Invention Assignment Agreement', which will bind you from disclosing classified information without prior consent from competent authority in the organization.
9. You shall make your own arrangement for transport to & from the office.
10. The above terms and conditions are subject to government rules and their changes as and when applicable.
11. We are open to hire you; based on your performance during internship and requirement of the company. The compensation part will be decided later.

Please review & sign this letter as a token of your acceptance.

Warm Regards,
For the Company,

Ujala Sabharwal

Ujala Sabharwal

Senior Director – India People

Accepted and Agreed:

ABSTRACT

The evolution of HealthEdge since its inception in 2005 exemplifies a commitment to revolutionize the healthcare industry's administrative processes. With a focus on accuracy, efficiency, and innovation, HealthEdge introduced HealthRules Payer, a groundbreaking Core Administrative Processing System (CAPS) that garnered recognition from industry leaders like Gartner. Over the years, HealthEdge has continued to push boundaries, expanding its offerings to address diverse customer needs and facilitate digital transformation for health plans.Today, HealthEdge's flagship solution suite, HealthRules Payer, encompasses three cutting-edge, cloud-based solutions. These solutions target key value streams within health plans, optimizing administrative costs, managing medical expenses, and enhancing member care for improved outcomes. By seamlessly integrating claims processing with advanced payment integrity and comprehensive care management tools, HealthRules Payer facilitates streamlined operations, reduced costs, and elevated patient care standards. This abstract encapsulates HealthEdge's journey towards reshaping healthcare administration and fostering a future of enhanced efficiency, cost-effectiveness, and patient-centric care.

DAILY LOGS

DAY	DATE	TOPICS COVERED
Day 1-Day10	11/04/2022 – 21/04/2022	Company Intro
Day 11-Day 16	22/04/2023 – 27/04/2023	Office Round Up
Day 17-Day 20	28/04/2023 – 31/04/2023	Office Ethics & Behavior
Day 21-Day 25	01/05/2023 – 05/05/2023	Git Master Class
Day 26- Day 32	06/05/2023 – 12/05/2023	Java Master Class
Day 33-Day 45	13/05/2023 – 25/05/2023	Industrial Requirements

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INTERNSHIP OBJECTIVES

The objective of this study is to examine the transformative journey of HealthEdge, a pioneering healthcare technology company, from its founding in 2005 to its current position as a leader in innovative Core Administrative Processing Systems (CAPS) for health plans. This analysis aims to elucidate how HealthEdge's flagship solution suite, HealthRules Payer, has evolved to meet the evolving needs of the healthcare industry, driving improvements in accuracy, efficiency, and innovation. By exploring the key components and functionalities of HealthRules Payer, this study seeks to demonstrate its role in optimizing administrative processes, managing medical expenses, and enhancing member care for improved patient outcomes and quality. Through a comprehensive examination of HealthEdge's journey and the capabilities of HealthRules Payer, this study aims to provide insights into the potential benefits of adopting advanced healthcare technology solutions for health plans striving for digital transformation and improved operational efficiency.

CHAPTER 1

INTRODUCTION

In an era where digitization has revolutionized numerous sectors, healthcare has remained relatively untouched by its transformative potential. However, as the healthcare landscape becomes increasingly complex with evolving compliance requirements and shifting payment models, there's a growing imperative for healthcare payers to embrace digitalization. The concept of becoming a digital health payer necessitates the adoption of modern digital healthcare software that not only enhances consumer experiences but also fosters agility within payer businesses. This shift towards digitization is crucial to meet the escalating expectations of health consumers for greater access, transparency, and efficiency in their interactions with healthcare providers. Central to the concept of a digital payer is the transformation of the member experience. Instead of encountering disjointed and confusing interactions via traditional channels, members now demand seamless access to self-service tools and the ability to engage directly with knowledgeable representatives, mirroring the streamlined experiences they've come to expect from retail giants like Amazon and Google.

HEALTHEDGE

Fig-1.1 Logo of HealthEdge

CONTACT DETAILS:

Websites: healthedge

Headquarters:

Bangalore

Year Founded:

2005

Company Type:

Companies specializing in healthcare technology or HealthIT are at the forefront of digitizing healthcare payer services. These companies offer innovative software solutions tailored to enhance operational efficiency and improve consumer experiences for both payers and members. Their platforms encompass a range of functionalities, including claims processing, member engagement, provider interactions, care management, and data analytics. By leveraging digital tools such as self-service portals, mobile applications, and predictive analytics, these companies empower payers to streamline processes, optimize care delivery, and drive better outcomes. Overall, they play a crucial role in facilitating the digital transformation of healthcare payer operations, enabling greater agility, transparency, and value across the healthcare ecosystem.

Address:

SJR Primus, 7th Floor, No.1
Industrial Layout, 7th Block,
Koramangala, Bengaluru,
Karnataka 560095
Email - info@healthedge.com
Phone - 1 (781) 285-1300

CHAPTER 2
PROJECT DETAILS

2.1 PROJECT AREA/DOMAIN:

The goal of this internship is to develop and understand JAVA.

2.2 PROBLEM STATEMENT:

Java is a versatile and powerful programming language that has been a cornerstone of software development for over two decades. Developed by Sun Microsystems (now owned by Oracle Corporation), Java was designed with the principle of "write once, run anywhere" in mind, meaning that Java programs can be compiled into platform-independent bytecode, which can then be executed on any device with a Java Virtual Machine (JVM).

2.3 EXPLANATION OF WORKING OF PROPOSED IDEA:

1. **User Set Clear Goals:** Determine why you want to learn Java and what you aim to achieve with your newfound skills. Whether it's building applications, pursuing a career in software development, or simply expanding your programming knowledge, having clear goals will help guide your learning journey.

2. **Understand Basic Concepts:** Start by grasping the basic concepts of programming such as variables, data types, operators, control structures (if-else, loops), and methods. Familiarize yourself with fundamental programming principles before diving into Java specifics.

3. **Learn Object-Oriented Programming (OOP):** Java is an object-oriented programming language, so understanding OOP principles is crucial. Learn about classes, objects, inheritance, polymorphism, and encapsulation. Practice implementing OOP concepts in Java to solidify your understanding.

4. **Choose Learning Resources:** Select learning resources that suit your learning style and pace. Options include online courses, tutorials, textbooks, video lectures, and coding platforms. Popular resources include Oracle's Java Tutorials, Codecademy, Udemy, Coursera, and books like "Head First Java" by Kathy Sierra and Bert Bates.

5. **Practice Regularly:** Practice coding regularly to reinforce your understanding of Java syntax and concepts. Start with small programs and gradually move to more complex projects as you gain confidence. Utilize online coding platforms, IDEs, and Java development tools to write and run your code.

6. **Work on Projects:** Engage in project-based learning to apply your knowledge to real-world scenarios. Work on projects of varying complexities, such as building a simple calculator, creating a todo list application, or developing a basic web application using Java Servlets or JavaFX.

7. **Debugging and Troubleshooting:** Learn to debug and troubleshoot your Java code effectively. Understand common errors and exceptions, and learn how to use debugging tools provided by IDEs to identify and fix issues in your code.

8. **Collaborate and Seek Feedback:** Collaborate with others on Java projects to gain experience working in a team environment. Seek feedback from peers, mentors, or online communities to improve your coding skills and learn best practices.

9. **Stay Updated:** Java is continuously evolving, so stay updated with the latest developments, best practices, and trends in the Java ecosystem. Follow reputable blogs, forums, and news sources to stay informed about new features, updates, and advancements in Java programming.

10. **Practice Patience and Persistence**: Learning Java (or any programming language) takes time and patience. Be persistent, embrace challenges, and don't be afraid to make mistakes. Learning from mistakes is an essential part of the learning process. Stay motivated and celebrate your progress along the way.

CHAPTER 3

METHODOLOGY

3.1 Java

1. **Java Understanding Fundamentals**: Begin by familiarizing yourself with the basic concepts of Java programming language, such as variables, data types, operators, control structures (if-else, loops), and methods. Utilize online tutorials, textbooks, or video lectures to grasp these fundamental concepts.

2. **Object-Oriented Programming (OOP)**: Delve into the principles of Object-Oriented Programming (OOP), which is fundamental to Java. Learn about classes, objects, inheritance, polymorphism, and encapsulation. Practice implementing simple classes and exploring inheritance hierarchies to solidify your understanding.

3. **Practice with Code**: Practice coding regularly to reinforce your understanding of Java syntax and concepts. Start with small programs and gradually move to more complex projects as you gain confidence. Utilize online coding platforms, IDEs (Integrated Development Environments), and Java development tools to write and run your code.

4. **Project-Based Learning**: Engage in project-based learning to apply your knowledge to real-world scenarios. Work on projects of varying complexities, such as building a simple calculator, creating a todo list application, or developing a basic web application using Java Servlets or JavaFX.

5. **Utilize Resources**: Take advantage of a wide range of resources available for learning Java, including online courses, tutorials, documentation, and community forums. Websites like Oracle's Java Tutorials, Codecademy, Udemy, and Coursera offer comprehensive Java courses suitable for learners of all levels.

6. **Read Books and Documentation**: Supplement your learning by reading Java programming books and official documentation. Books like "Head First Java" by Kathy Sierra and Bert Bates, "Effective Java" by Joshua Bloch, and "Java: The Complete Reference" by Herbert Schildt are highly recommended for beginners and intermediate learners.

7. **Debugging and Troubleshooting**: Learn to debug and troubleshoot your Java code effectively. Understand common errors and exceptions, and learn how to use debugging tools provided by IDEs to identify and fix issues in your code.

8. **Version Control and Collaboration**: Familiarize yourself with version control systems like Git and platforms like GitHub. Practice using Git for version control and collaborate with others on Java projects to gain experience working in a team environment.

9. **Review and Reinforce**: Regularly review your learning progress and reinforce your understanding by revisiting key concepts and completing coding challenges and quizzes. Reflect on your learning journey and identify areas for improvement.

10. **Continuous Learning**: Java is a vast and evolving language, so commit to continuous learning and stay updated with the latest developments, best practices, and trends in the Java ecosystem. Engage with the Java community through forums, meetups, and conferences to expand your knowledge and network with fellow Java developers.

CHAPTER 4   IMPLEMENTATION

4.1 SOURCE CODE

```
type versioned Martini
    /**
     * The system-generated numeric identifier for instance.  This is not
     * visible to users.
     */
    generated instance unique identifier martiniIdentifier: GeneratedIdentifier
    /**
     * Martini's unique, external identifier
     */
    attribute hecId: HecId
    /**
     * Martini's Type
     */
    attribute optional martiniType : MartiniTypeDomain
    /**
     * Martini's description
     */
    attribute optional description: String
end type Martini
attribute type MartiniTypeDomain specialize String
      length 2
      values
       "1" "shaken",
       "2" "stirred"
      end values
end attribute type


<databaseChangeLog
     xmlns="http://www.liquibase.org/xml/ns/dbchangelog"
     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
     xsi:schemaLocation="http://www.liquibase.org/xml/ns/dbchangelog
http://www.liquibase.org/xml/ns/dbchangelog/dbchangelog-3.5.xsd"
     logicalFilePath="oltp/upgrade/r21.8/oltp_PAYOR-12348_205_5">
<changeSet id="oltp_PAYOR-12348_205_5_v1" author="awalke" context="generated">
<comment>Add new table for Martini</comment>
<sql>
        CREATE SEQUENCE seq_martini START WITH 1 INCREMENT BY 100 NOCYCLE
ORDER;
</sql>
<sql>
     CREATE TABLE Martini(
     martini_id number NOT NULL,
     hec_id varchar2( 50 ) NOT NULL,
     martini_type_txt varchar2( 2 ),
     dsc varchar2( 50 ),
     ver_id number NOT NULL,
     cvc_type_cd varchar2( 2 ) DEFAULT 'c' NOT NULL,
```

```
        inst_active_cd varchar2( 1 ) DEFAULT 'a' NOT NULL,
        concept_fulfilled_cd varchar2( 1 ) DEFAULT 't' NOT NULL,
        ver_eff_dt timestamp NOT NULL,
        ver_expire_dt timestamp NOT NULL,
        endor_eff_dt timestamp NOT NULL,
        endor_expire_dt timestamp NOT NULL,
        tx_cnt number NOT NULL,
        last_tx_dt timestamp NOT NULL,
        last_tx_user_txt varchar2( 50 ) NOT NULL
        )
        TABLESPACE ${table.tablespace};
</sql>
</changeSet>
</databaseChangeLog>
```
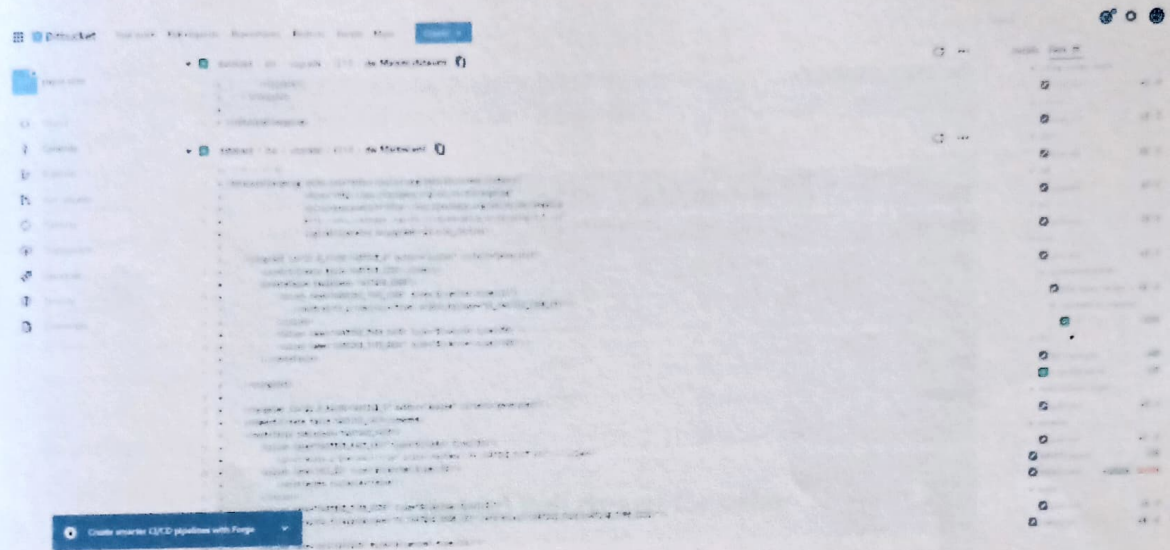
4.2 SNAPSHOTS

Fig-4.2.1 Code Repositories

Fig-4.2.2 Jenkins Pipeline

Fig-4.2.3 Pull request for codes
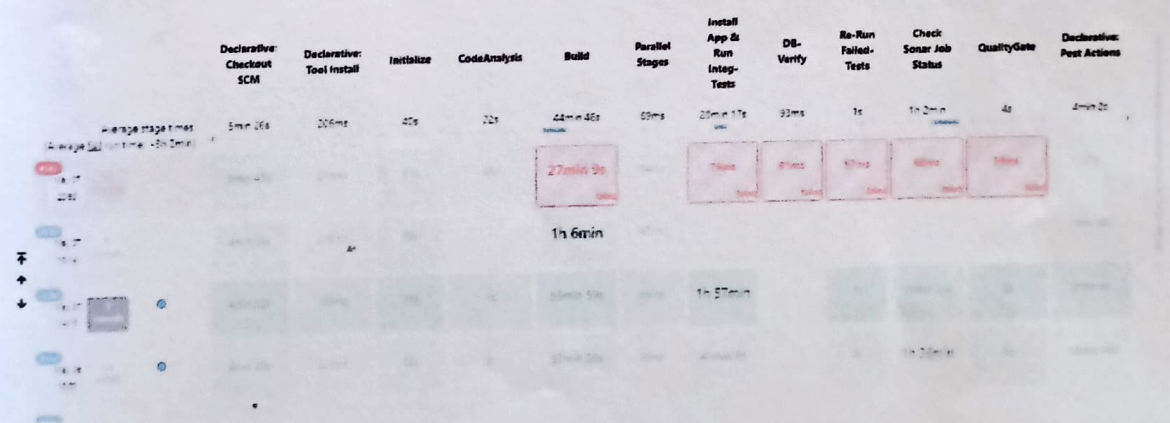
CHAPTER 5

INTERNSHIP BENEFITS

As an intern at HealthEdge, the benefits of this internship are manifold. Firstly, there's the invaluable opportunity to gain hands-on experience in a dynamic and innovative healthcare technology company, where I'm able to apply theoretical knowledge to real-world projects. This practical experience not only enhances my understanding of the industry but also equips me with transferable skills crucial for my future career. Moreover, the mentorship and guidance provided by seasoned professionals here are instrumental in my professional development. I receive personalized feedback, constructive criticism, and mentorship, which helps me grow both personally and technically. Additionally, the networking opportunities within HealthEdge are immense. I have the chance to interact with professionals from various departments, fostering connections that may prove beneficial in the future. Furthermore, HealthEdge places a strong emphasis on learning and development, offering training sessions, workshops, and seminars to expand my skill set and knowledge base. Overall, this internship at HealthEdge is not just a stepping stone in my career path but also a transformative experience that shapes me into a well-rounded and capable professional in the healthcare technology sector.

CHAPTER 6

CONCLUSION

In conclusion, my internship experience at HealthEdge has been nothing short of transformative. Throughout my time here, I've gained invaluable insights into the healthcare technology industry, honed my skills through hands-on projects, and developed meaningful connections with professionals in the field. The mentorship and guidance I received have played a pivotal role in my personal and professional growth, while the emphasis on continuous learning has expanded my knowledge base exponentially. As I reflect on my journey at HealthEdge, I am grateful for the opportunity to contribute to meaningful projects, collaborate with talented individuals, and immerse myself in an environment that fosters innovation and growth. This experience has not only equipped me with the skills and knowledge necessary for my future career but has also instilled in me a passion for making a difference in the healthcare sector. Moving forward, I am confident that the lessons learned and experiences gained during my internship at HealthEdge will serve as a solid foundation for my continued success in the industry.

CHAPTER 7

REFERENCES

1. https://www.w3schools.com/java/java_intro.asp
2. https://www.javatpoint.com/java-jdbc
3. https://docs.oracle.com/javaee/5/tutorial/doc/bnagy.html
4. https://www.geeksforgeeks.org/introduction-java-servlets