zimetrics

INTERNSHIP
REPORT

Varad Damodar Kamat Elekar
2103

2023

Zimetrics Technologies Private Limited   **Goa University**

zimetrics

Office No 601 B, Alpha2,
Gigaspace IT Park,
Opp. Pheonix Mall,
Viman Nagar Pune 411014
Web: www.zimetrics.com

ZIMETRICS TECHNOLOGIES PRIVATE LIMITED

Date: 02/06/2023

TO WHOM IT MAY CONCERN

This is to certify that Mr. Varad Elekar, student of Master of Computer Applications (MCA) of Goa University, Goa is currently undergoing an internship program at Zimetrics Technologies Pvt Ltd dated 3rd January 2023 – Till date.

During his tenure, he has met the expectations of his team mentor and was found to be regular and sincere.

He has exhibited overall very good conduct, and professionalism during this period.

This certificate is being issued on his request to be submitted with the project report at Goa University.

Yours sincerely,
For Zimetrics Technologies Pvt. Ltd.

Swati Patil

Swati Patil - Head HR

GOA UNIVERSITY

GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that **Mr. Varad Kamat Elekar** has been evaluated for the project

work titled **"Report of Internship done at Zimetrics Technologies Private Limited"**

undertaken at **Zimetrics Technologies Private Limited, Pune** in partial fulfilment for

the award of the degree in Master of Computer Applications.

_____   _____
Examiner 1   Examiner 2

Place: Goa University

Date: 16 - June - 2023

_____
Dean, Goa Business School

ACKNOWLEDGEMENT

INTERNSHIP REPORT

Varad Damodar Kamat Elekar
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Zimetrics Technologies Private Limited   **Goa University**

REPORT OF INTERNSHIP DONE AT ZIMETRICS TECHNOLOGIES PRIVATE LIMITED

Completed by

Varad Kamat Elekar

2103

For the partial fulfillment of MCA Degree for Semester IV
Discipline of Computer Science and Technology,
Goa Business
School, Goa
University

At
Zimetrics Technologies Pvt Ltd
Goa RDC

UNDER THE GUIDANCE OF

Mr. Omkar Prabhu   **Mr.Joshua Salema**

(Center Head – Goa RDC. at Zimetrics   **(Senior System Analyst**

Technologies)   **at Zimetrics Technologies)**

INTERNSHIP CERTIFICATE

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Place: Goa University

Date: _____
                                                        Dean, Goa Business School

ACKNOWLEDGEMENT

I express my heartily gratitude to have an opportunity to work as an intern in a company such as Zimetrics, wherein you get to learn new technologies, get industry exposure and to use and contribute the knowledge we posses into practical work.

I am very thankful to all the seniors for their constant support and encouragement throughout my journey. It's my honor to express my gratitude towards everyone who helped me throughout the internship period.

I kindly thank Mr. Vikas K Verma (Founder & President of Engineering at Zimetrics Technologies), Mr. Omkar Prabhu (Center Head - Goa RDC.) and Mr. Joshua Salema (System Analyst) for giving me the opportunity to intern at Zimetrics Technology Private Limited and for being exceptional mentors during my internship, consistently providing invaluable support and guidance.

I sincerely express gratitude to Saiprasad Naik (Software Engineer) for always being supportive and guiding me in completing the project.

I extend gratitude to Ms. Swati Patil (Head - HR), Mr. Shantanu Waghmare (Associate Manager – HR), Srikant Waghulkar (Sr. Manager – Learning & Development HR) and Ammar Kothari (Sr. Manager Recruitment Operations) for helping me out whenever needed.

I would also like to thank Ms. Ankita Raul (Office Admin, at Zimetrics Goa Office) , Ms. Jyoti D. Pawar (Dean, Goa Business School, Goa University), and all the faculty of MCA, Goa University for their constant encouragement and support during the project work.

Lastly, I would like to express my gratitude towards all my colleagues at Zimetrics, especially Srinivass Talaulikar, Vedanti Tari and Pritesh Gawde for being so helpful, kind throughout my journey.

TABLE OF CONTENTS

INTRODUCTION

This report includes a short description of my full-time internship at Zimetrics Technologies Private Limited.

I joined as an intern in Zimetrics on 03rd January 2023. This report contains all the necessary information about the company, the project I have worked on, the trainings I have received, and some other tasks that I completed in this internship period.

In the following sections I shall include information about the company, the work and culture over here. I shall also include details of the project I worked on, a brief description of the project, the modules I built and the tasks I completed in those modules.

This report emphasizes my learning experience and contribution to the organization as an intern. This will describe the knowledge that I gained by successfully completing the tasks that were assigned to me.

I'll also be talking about the tools and technologies that were used followed by my internship timeline. I shall conclude by sharing my experience and how it has helped me to grow, both on the personal and professional front.

COMPANY PROFILE

Zimetrics is a niche technology provider and solutions enabler for IoT, Machine data, Big Data analytics, and Data Science.

Zimetrics is a Confluent & HashiCorp Partner and recognized as the "Top 20 IoT Solutions Providers" by CIO Outlook APAC.Founded in 2015, Zimetrics today serves leading global enterprises across Industrial, Oil & Gas, FMCG, MedTech, Internet Advertising, and Retail. Learn of our expertise and transformational value creation stories in Digital Media Analytics, Retail Analytics, Marketing Analytics, Customer Data Analytics, Video Analytics, Big Data, IOT, Machine Vision, Natural language Processing, Machine Learning, and Deep Learning.

RESEARCH AND INNOVATION AT CORE

Innovation and research are at the center stage for Zimetrics. Zimetrics is heavily open-source-driven and invests heavily in research across data engineering, decision models, computer vision, and embedded technology.

ACROSS LOCATIONS & GROWING

Zimetrics is headquartered in India, Pune. Zimetrics has regional delivery centers in Goa,

Delhi, NCR, and Bangalore (upcoming) in India. Zimetrics has network delivery centers in Canada, British Columbia, and in the USA which helps in delivering a seamless cross-time zone network execution experience.

The fundamentals and aims of Zimetrics are as follows:

- One that combines data sciences, domain disciplines, and data technologies into crafts that creates transformational customer value.
- One that puts the customer's interests first.
- And one that would be recognized as one of the great places to work.

PROJECT– PATIENT MANAGEMENT APP

PROBLEM STATEMENT

The current healthcare system lacks an efficient and user-friendly patient management solution. There is a need to develop a simple and intuitive Patient Management app using OutSystems that streamlines tasks like appointment scheduling, medical record management, and communication, while ensuring data security and integration with existing healthcare systems.

OVERVIEW

A patient management app is a software application designed to assist healthcare providers in effectively managing and organizing patient-related information. It serves as a central platform to streamline various aspects of patient care, including appointments, medical records, communication, and billing. Here's an overview of the typical features and functionalities you can expect to find in a patient management app:

- Patient Registration and Profile Management: The app allows healthcare providers to register new patients and maintain comprehensive profiles. This includes capturing personal details, contact information, medical history, allergies, and any other relevant data.

- Appointment Scheduling: The app provides a scheduling system that enables healthcare professionals to manage patient appointments efficiently. It allows them to view available time slots, book appointments, send reminders to patients, and handle rescheduling or cancellations.

- Electronic Medical Records (EMR): The app facilitates the digital storage and management of patient medical records. It allows healthcare providers to create, access,

and update electronic medical records, including medical history, diagnoses, test results, treatment plans, and prescriptions.

- Prescription Management: The app may include features for electronically managing prescriptions. Healthcare providers can generate and send prescriptions to pharmacies digitally, improving accuracy and convenience.

- Patient Monitoring and Alerts: Some patient management apps provide monitoring and alert systems to track patient progress and notify healthcare providers of any critical changes or issues. This can include reminders for medication adherence or monitoring vital signs remotely.

- Analytics and Reporting: The app may offer analytical capabilities, generating reports and insights based on patient data. This helps healthcare providers identify trends, track outcomes, and improve overall patient care.

TOOLS AND TECHNOLOGIES USED

OutSystems is a low-code platform that accelerates web and mobile app development through a visual environment with drag-and-drop components. It streamlines coding, boosting productivity and delivery speed. Integrated widgets and database connectivity simplify screen design, data modeling, and logic implementation. OutSystems provides extensive documentation, tutorials, and a supportive community for additional guidance.

Here's an overview of the key features and benefits of the OutSystems platform:

Low-code development: OutSystems is a leading low-code platform that allows developers to build applications quickly and easily through visual development tools. The platform abstracts complex coding tasks, enabling developers to focus on building the application's functionality.

Rapid application delivery: With OutSystems, organizations can accelerate the development and delivery of web and mobile applications. The visual development environment, pre-built components, and templates enable faster development cycles, reducing time-to-market for new applications.

Cross-platform capabilities: OutSystems supports the development of applications that run on multiple platforms, including web, mobile, and desktop. Developers can create responsive applications that automatically adjust to different screen sizes and devices, providing a consistent user experience.

Seamless integration: OutSystems facilitates seamless integration with existing systems, databases, and external APIs. It offers a range of connectors and integration options to enable data exchange and interaction with other systems, ensuring interoperability with legacy infrastructure.

Scalability and performance: OutSystems applications are designed to be scalable and performant. The platform optimizes the generated code, implements caching mechanisms, and provides scalability features like load balancing, allowing applications to handle increased user demand efficiently.

MY CONTRIBUTIONS

I was assigned to the Patient Management App wherein my responsibilities were on:

Patients List Page (Landing Page):

Table: Supports sorting and pagination, and patient name links to patient details page

Search Patient: To search for a particular patient Button:

Displays appointments scheduled for that very day

Overview Page:

Filters: Time Span (30/60/90/6 months/1 year/>1 year), Diabetes Type (type 1, type 2, both), Age Group (0-25/26-50/51-75/76 and above, any age)

Counters: Total Patients, Hospitalizations, Total Recovered

Charts: Glucose Level (Bar), Blood Pressure (Line), Location Distribution (Bar), Diabetes Type (Pie)

Patient Details Page:

Display patient details: Name, age, location, risk score, diabetes type, date of birth, etc.

Doctor's observations: Form with a text area to record observations, displayed using a timeline widget

Glucose area chart: Shows glucose levels over time (x-axis: date, y-axis: glucose)

Blood pressure line chart: Illustrates blood pressure trends (x-axis: date, y-axis: blood pressure)

Upcoming appointments list: Includes buttons to add medical data, edit, and delete appointments.

Appointment Page:

Schedule Appointment: Form to schedule an appointment, with options to search and select an existing patient or create a new one.

SCREENSHOTS
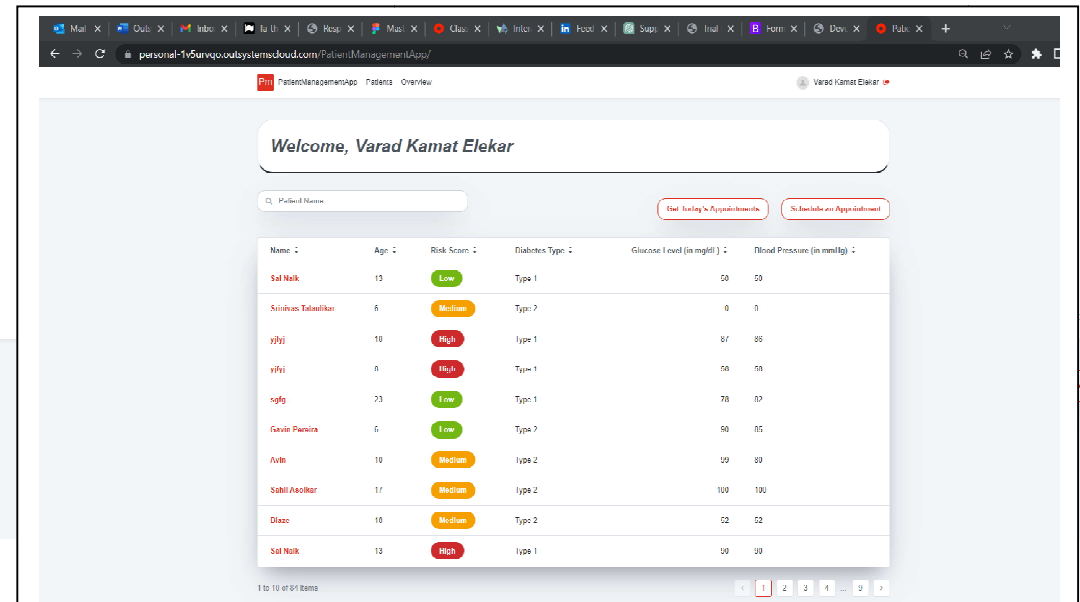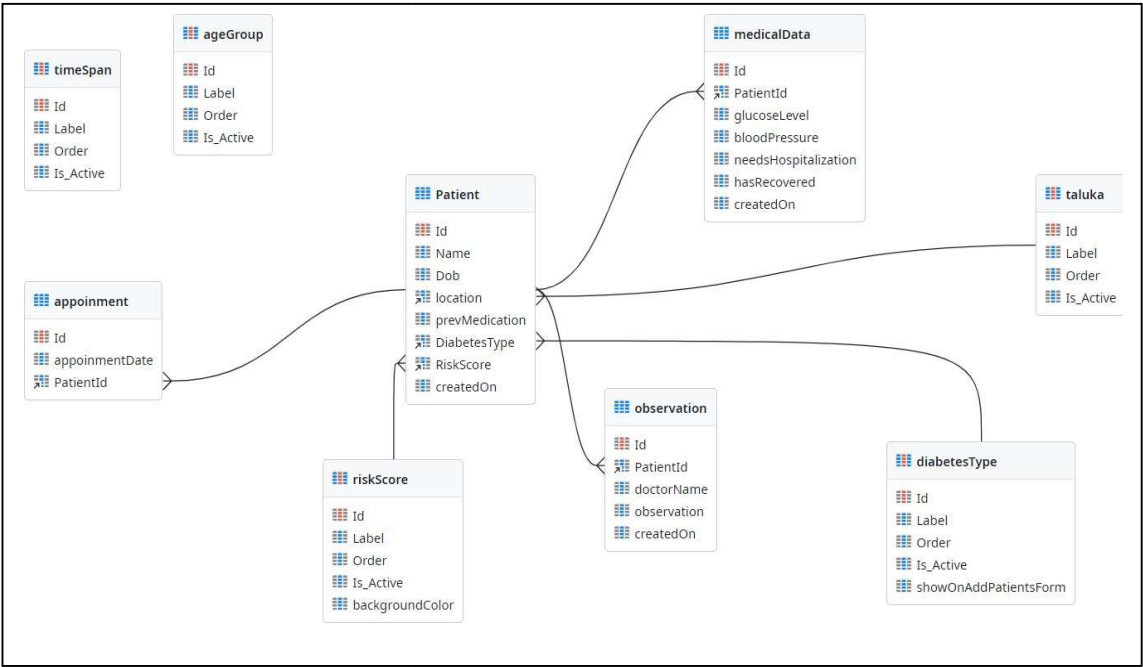
Schedule Appointment

Welcome, Varad Kamat Elekar

Today's Appointments (2023-06-06):				
Name ⇕	Age ⇕	Diabetes Type ⇕	Risk Score ⇕	Appoinment Date ⇕
Varad Kamat Elekar	23	Type 1	Low	6 Jun 2023

Name ⇕						
Sai Naik						
Srinivas Tal:						
yjfyj	10	High	Type 1		87	86
yjfyj	8	High	Type 1		58	58
sgfg	23	Low	Type 1		78	82
Gavin Pereira	6	Low	Type 2		90	85
Avin	10	Medium	Type 2		99	80

Pm PatientManagementApp   Patients   Overview   Varad Kamat Elekar

Patient Detail   ← Back

👤 Varad Kamat Elekar

Age : 23   Diabetes Type : Type 1
Date of Birth : 2000-06-15   Risk Score : Low
Location : Ponda   Previous Medications   N/A

👤 Doctor's Observation   **📅 Upcoming Appointments**

6 Jun 2023   Dr. Varad Kamat Elekar   2023-06-06   ✏️ 🗑️
             He is recovering

                                      ⊕ Add Medical Data

Glucose Level (mg/dl)   Blood Pressure (mmHg)

● Glucose Level   ● Blood Pressure

Doctor's Observation :

[   ]

Save

Add new Appointment Date

Appoinment Date *

[06/06/2023   📅]

Save   Cancel

Add latest Glucose Level and Blood Pressure

Glucose Level

[50   ]
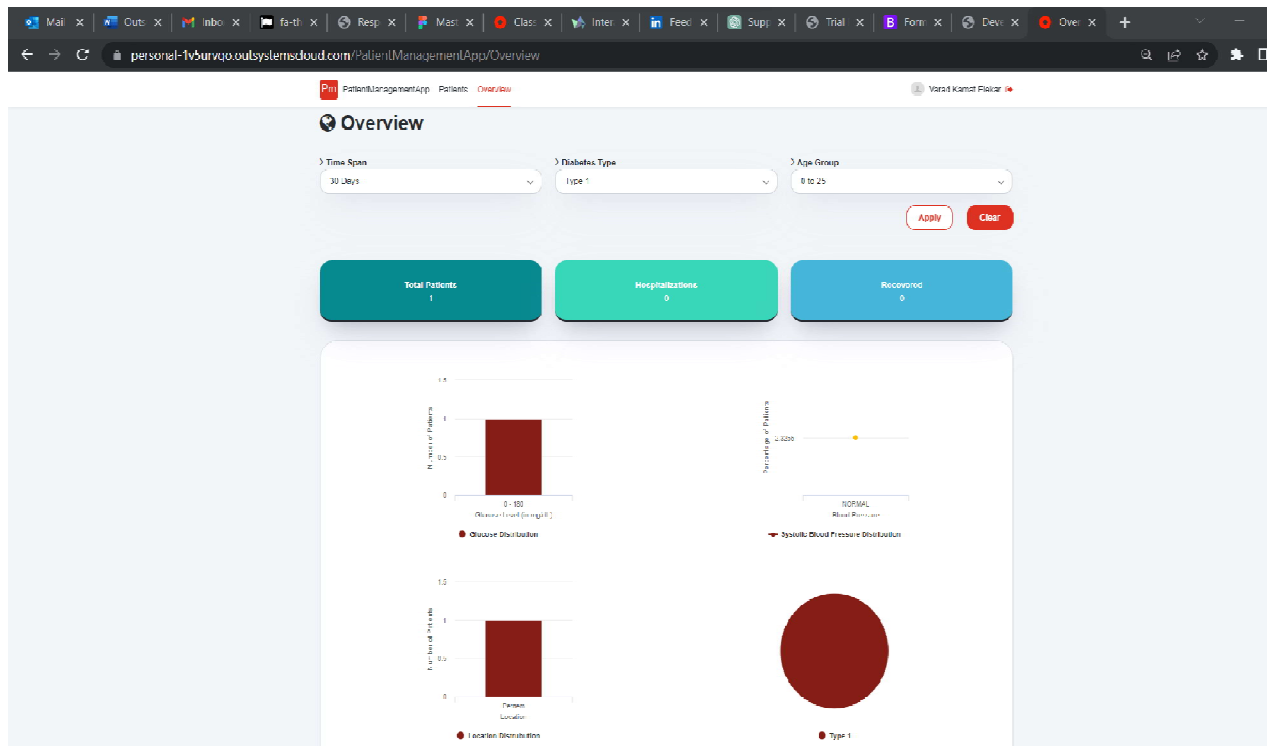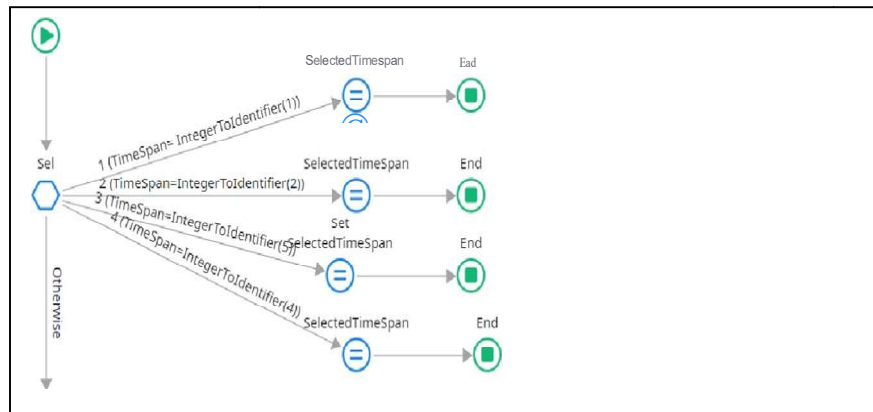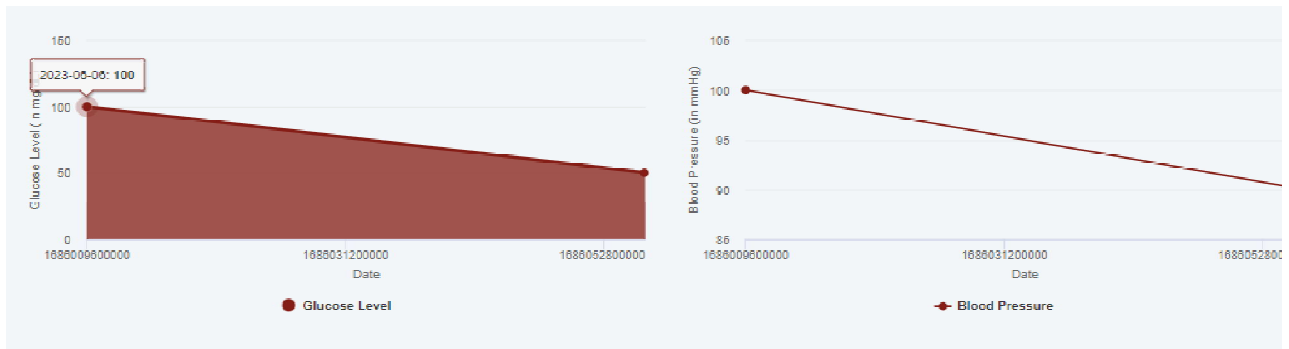
Blood Pressure

[90   ]

Save   Back

OTHER ADDITIONAL TASKS

- ➢ HTML: Learned the basics of HTML markup language and created web pages with proper structure and elements.

- ➢ CSS: Explored CSS styling techniques to enhance the visual appearance of web pages, including layout, colors, and typography.

- ➢ JavaScript: Studied JavaScript programming language to add interactivity and dynamic functionality to web pages.

- ➢ UiPath: Acquired skills in UiPath, a popular Robotic Process Automation (RPA) tool, to automate repetitive tasks and streamline business processes.

- ➢ Git Commands: Familiarized yourself with Git version control system and learned essential Git commands to manage source code and collaborate with team members.

- ➢ SQL: Developed proficiency in SQL (Structured Query Language) to interact with relational databases, perform database operations, and retrieve data using queries.

- ➢ Python: Gained proficiency in Python programming language, covering core concepts, data structures, and implementing various algorithms and projects.

- ➢ Agile Methodologies: Learned Agile development methodologies, such as Scrum or Kanban, and experienced working in an Agile team environment to deliver projects in iterative cycles.

- ➢ Amazon S3: Explored Amazon S3 (Simple Storage Service) and learned to utilize it for scalable, secure, and reliable storage of data and files in the cloud

TOOLS AND TECHNOLOGIES USED

- **Visual Studio:**

- Visual Studio is an integrated development environment (IDE) created by Microsoft.

- It provides a comprehensive set of tools and features for developing software applications, including web, desktop, mobile, and cloud-based solutions.

- Visual Studio supports multiple programming languages such as C#, Visual Basic.NET, F#, C++, and more.

- It offers a rich code editor, debugging capabilities, code refactoring tools, and integration with version control systems.

- **Git Bash:**

- Git Bash is a command-line interface (CLI) tool that provides an emulation layer for running Git commands on Windows.

- It allows developers to interact with Git repositories using familiar Unix-like commands.

- Git Bash provides a Git command-line environment, including the Git command-line tools and a Unix shell emulator based on Bash.

- **UiPath:**

- UiPath is a leading Robotic Process Automation (RPA) tool.

- It provides a platform for automating repetitive tasks and business processes through software robots.

- UiPath offers a visual development interface that allows users to create automation workflows by dragging and dropping activities.

- It supports automating tasks in various applications, including web browsers, desktop applications, and virtual environments.

- **PyCharm:**

- PyCharm is a popular integrated development environment (IDE) specifically designed for Python development.

- It offers advanced features for Python programming, including code completion, debugging, unit testing, and code refactoring.

- PyCharm provides support for various Python frameworks such as Django, Flask, and Pyramid.

- It offers integration with version control systems, virtual environments, and other tools commonly used in Python development.

- **AWS (Amazon Web Services):**

- AWS is a cloud computing platform provided by Amazon.

- It offers a wide range of cloud services and solutions, including compute power, storage, databases, analytics, machine learning, and more.

- AWS provides scalable and flexible infrastructure for hosting applications, managing data, and running various workloads in the cloud.

- It offers services such as Amazon S3 for storage, Amazon EC2 for virtual servers, Amazon RDS for managed databases, and many others.

- **HTML:**

- Explored HTML markup language, which forms the foundation of web development.

- Created web pages with proper structure, using tags such as <html>, <head>, <body>, and semantic elements like <header>, <nav>, <section>, etc.

- Utilized HTML5 features for enhanced functionality and compatibility with modern browsers.

- **CSS:**

- Learned CSS (Cascading Style Sheets) to apply styles and enhance the visual appearance of web pages.

- Applied CSS properties such as colors, backgrounds, fonts, margins, and paddings to create appealing layouts.

- Explored CSS frameworks and libraries like Bootstrap to leverage pre-built styles and responsive design features.

- **JavaScript:**

- Studied JavaScript programming language to add interactivity and dynamic functionality to web pages.

- Utilized JavaScript to manipulate the Document Object Model (DOM), handle events, validate forms, and perform asynchronous operations using AJAX.

- **UiPath:**

- Acquired skills in UiPath, a popular Robotic Process Automation (RPA) tool.

- Created and automated workflows to streamline repetitive tasks, data entry, and data extraction processes.

- Utilized features like selectors, activities, variables, and control flow to build efficient and reliable automation solutions.

- **Git Commands:**

- Familiarized myself with Git version control system, which facilitates collaborative development and source code management.

- Utilized Git commands like git init, git clone, git add, git commit, git push, and git pull to manage repositories, branches, and commit history.

- **SQL:**

- Developed proficiency in SQL (Structured Query Language), the standard language for managing relational databases.

- Created and manipulated database tables, defined relationships, and performed CRUD (Create, Read, Update, Delete) operations.

- Utilized SQL queries to retrieve data using SELECT statements, apply filters, aggregate data, and perform joins.

- **Python:**

- Gained proficiency in Python programming language, known for its simplicity and versatility.

- Covered core concepts like variables, data types, conditionals, loops, functions, and object-oriented programming.

- Implemented various projects and algorithms using Python, including data manipulation, web scraping, and automation scripts.

- **Agile Methodologies:**

- Learned Agile development methodologies, such as Scrum or Kanban, which promote iterative and collaborative project management.

- Participated in Agile team environments, attending daily stand-up meetings, sprint planning, and retrospectives to deliver projects in incremental cycles.

- **Amazon S3:**

- Explored Amazon S3 (Simple Storage Service), a scalable and reliable cloud storage service.

- Utilized S3 to store and retrieve data, files, and multimedia content securely in the cloud.

- Leveraged features like versioning, access control, and bucket policies to manage data storage and access.

CERTIFICATIONS AND TRAININGS COMPLETED UNDER INTERNSHIP AND SELF STUDY

- ❖ **<u>Certifications</u>**
- ❖ Introduction to data analytics on Simplilearn
- ❖ Getting python interview ready on Simplilearn

- ❖ **<u>Other self study</u>**
- ❖ Earned badges in LinkedIn Skill Assessment
- ❖ Earned badged in Google cloud skills boost

PROJECT TIMELINE / PROJECT DIARY

JANUARY 2023:

Week 1:

Installed MySQL Workbench and set up the required configurations.

Studied SQL (Structured Query Language) basics, including creating tables, inserting data, and retrieving

 data with SELECT statements.

Week 2:

Continued learning and practicing SQL, focusing on more advanced topics such as JOINs, subqueries,

and data manipulation statements (UPDATE, DELETE).

Explored additional features of MySQL Workbench for database administration and optimization.

Week 3:

Started learning Python programming language.

Covered the basics of Python syntax, variables, data types, conditionals (if statements), loops, and functions.

Worked on simple Python programs to solidify the understanding of concepts.

Week 4:

Continued learning Python, diving into more advanced topics like file handling, error handling, and

Object-oriented programming.

Developed more complex Python programs, including mini-projects or exercises to apply the

Acquired knowledge.

FEBRUARY 2023:

Week 1:

Started learning about Amazon S3 (Simple Storage Service), a cloud storage solution.

Explored the features and capabilities of S3, such as creating buckets, uploading and managing objects

, and setting permissions.

Completed assignments or exercises related to AWS S3 to practice the concepts learned.

Week 2:

Dived into Git, a version control system for tracking changes in code repositories.

Covered Git concepts such as repositories, branches, commits, and merging.

Explored common Git workflows and best practices for collaborating with a team on a project.

Learned how to use Git commands through the command line or graphical user interfaces

(e.g., Git Bash, GitKraken).

Week 3:

Explored Agile methodologies, specifically Scrum and Kanban.

Learned about the Agile principles, roles (Scrum Master, Product Owner, Development Team),

and ceremonies (Sprint Planning, Daily Standup, Sprint Review, Retrospective).

Understood the Kanban board and its use for visualizing and managing work in progress. Explored

 Agile project management tools like Jira or Trello and their integration with Agile methodologies.

Week 4:

Installed UI Path, a popular Robotic Process Automation (RPA) tool.

Explored the basic functionalities and features of UI Path, such as creating automation workflows,

 Using activities, and handling data inputs and outputs. Covered fundamental concepts of RPA and how

UI Path can be used to automate various business processes.

MARCH 2023:

Week 1:

Continued with UI Path, completing additional assignments and exploring advanced features.

Strengthened proficiency in UI Path and robotic process automation.

Week 2:

Started learning OutSystems, a low-code development platform for web and mobile apps.

Explored basic concepts and created applications using visual modeling and drag-and-drop components.

Week 3:

Continued with OutSystems, delving deeper into features and functionalities.

Explored data modeling, integration, and implementing business logic.

Week 4:

Started the OutSystems project, applying the acquired knowledge to develop a real-world application.

APRIL 2023:

Week 1:

Worked on the OutSystems project, specifically designing forms and user interfaces for the

Patient Management app.

Focused on creating intuitive and user-friendly interfaces to capture patient information effectively.

Week 2:

Continued working on the OutSystems project, specifically focusing on the database integration within

the OutSystems platform.

Implemented server actions to handle data retrieval, storage, and manipulation for the Patient

Management app.

Week 3:

Developed an overview page for the Patient Management app, incorporating charts and counters to

provide real-time insights and metrics.

Utilized OutSystems' built-in charting capabilities and data aggregation features to present

meaningful information to users.

Week 4:

Enhanced the UI of the Patient Management app by incorporating external URLs and online resources.

Utilized third-party libraries or templates to improve the visual aesthetics and user experience

of the application.

<div align="center">

<u>MAY 2022:</u>

</div>

Week 1:

Explored and implemented additional functionalities within the OutSystems platform for the ongoing
project.

Worked on enhancing the capabilities and user experience of the Patient Management app.

Week 2:

Dedicated time to learning JavaScript, a popular programming language for web development.

Applied JavaScript concepts and techniques to enhance the functionality and interactivity of the
OutSystems project.

Week 3:

Started designing a personal portfolio using HTML, CSS, and JavaScript.

Created the structure and layout of the portfolio, focusing on showcasing skills, projects, and personal
information.

Week 4:

Completed the design and development of the personal portfolio using Bootstrap, a CSS framework.

Learned techniques to make the website responsive, ensuring optimal viewing experience across

 different devices.

JUNE 2023

Week1:

Utilized OutSystems Developer Cloud (ODC) to earn a developer badge by exploring its

Features, development environments, deployment processes, version control, and collaboration tools.

Engaged in practical exercises and projects to strengthen application development skills.

Week 2:

Explored High charts, a powerful JavaScript charting library, and integrated it into the Outsystems

project. Learned about different chart types, configuration options, and customization techniques to

create visually compelling and interactive charts, applied high harts to visual data in a meaningful way,

enhancing the overall user experience of the application.

REFLECTIONS/ EXPERIENCES OF INTERNSHIP

My experience of working as an intern at Zimetrics has been wonderful. I started working on Google Cloud Platform which was new to me. It was great learning new technologies. I found myself growing after joining the company.

The work environment at Zimetrics is very good. There is freedom given to interact, or seek help from seniors.

Apart from work, there are Recreational activities being conducted once every week where all members come together and play some indoor games. Once a month, a meeting is conducted wherein all members talk about their work.

You get appreciated for the work you do successfully which motivates you to do your work and also get help whenever needed.

Overall, I am happy to be a part of Zimetrics. My best wishes to everyone here.

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