

Internship Monthly Report

My name is Sunil Kumar, and I am currently interning at Surfboard Payments. This internship has been a great opportunity for me to improve my technical skills, learn problem-solving techniques, and gain hands-on experience. Over the past month, I have worked on various topics, including programming, teamwork, logical thinking, and web development. I have also interacted with experienced professionals and learned about how a workplace functions. In this report, I will summarize my key learnings from the month in detail.

I learned on logical thinking and problem-solving. Instead of traditional teaching methods, we were given puzzles and activities to develop our thinking skills. I learned how to approach problems step by step, analyze different possibilities, and find the best solutions. Additionally, I had the chance to interact with employees from different teams and understand various job roles in software development, such as frontend and backend development, software testing, and cloud computing. These discussions helped me understand how different departments work together to build a successful product. I also got introduced to GitHub, which is used for version control in software projects. I practiced basic Git commands like 'git commit', 'git push', and 'git pull', which are essential for working in a team. These skills are important for managing and maintaining software projects efficiently.

I started learning JavaScript, which is a key language for web development. JavaScript is widely used for creating interactive websites and building web applications. I learned about functions, which are blocks of reusable code that perform specific tasks. Functions help reduce code duplication and make programs more efficient. I also studied loops, which are used to repeat a block of code multiple times. Loops are useful in situations where the same operation needs to be performed repeatedly, such as iterating through a list of items. Arrays were another important topic I explored, as they allow storing multiple values in a single variable. Arrays are useful for managing large amounts of data efficiently. Additionally, I learned about objects, which store key-value pairs and provide a structured way to organize data. Understanding JavaScript fundamentals allowed me to build simple programs and enhance my problem-solving skills.

I also about Boolean logic, which is used in programming for decision-making. Boolean logic helps control the flow of a program by using conditional statements like 'if', 'else', and 'switch'. These statements allow programs to execute different actions based on specific conditions. By applying Boolean logic, I was able to create programs that responded dynamically to user inputs. Additionally, I was introduced to the Command Line Interface (CLI), which is a faster way to interact with a computer compared to using a graphical interface. Using CLI commands, I learned how to navigate directories, manage files, and execute programs. Mastering CLI commands improved my efficiency in performing system operations and troubleshooting issues.

I learned backend development, which is essential for building dynamic web applications. The backend is responsible for processing user requests, managing databases, and ensuring secure communication between the server and the client. I learned how to set up a server using Node.js and Express.js. Node.js is a server environment that allows JavaScript to be used for backend development, while Express.js is a framework that simplifies building web applications. I practiced handling requests and responses from users

Another important topic I explored was RESTful APIs, which allow different applications to communicate with each other over the internet. RESTful APIs provide a standardized way to send and receive data between a client and a server. I used Insomnia, a tool for testing API requests, to send GET, POST, PUT, and DELETE requests to a server. Understanding how APIs work helped me realize the importance of data exchange in modern web applications. Additionally, I explored MongoDB, a NoSQL database that stores data in a flexible and scalable way. Unlike traditional SQL databases, MongoDB allows data to be stored in JSON-like documents, making it easier to handle large amounts of unstructured data. Learning about databases improved my understanding of how data is stored, retrieved, and managed in a web application.

I focused on more advanced JavaScript topics such as asynchronous programming. In traditional synchronous programming, operations are executed one after another, which can cause delays when handling time-consuming tasks. Asynchronous programming allows multiple tasks to run simultaneously without blocking the main program. I learned about 'async' and 'await', which help manage asynchronous tasks such as fetching data from an API. By using asynchronous programming techniques, I

was able to create more efficient and responsive web applications.

Error handling was another key topic I covered. In programming, errors can occur due to unexpected inputs or system failures. I learned how to use 'try...catch' statements to handle errors gracefully and prevent programs from crashing. By implementing proper error-handling techniques, I was able to improve the stability and reliability of my applications. Additionally, I studied event handling, which is used to create interactive web pages. Event handling allows web applications to respond to user actions such as clicks, key presses, and form submissions. Understanding event handling enabled me to create more engaging and user-friendly web applications.

One of the most interesting things I learned was how JavaScript interacts with the Document Object Model (DOM). The DOM represents the structure of a webpage, and JavaScript can be used to manipulate elements dynamically

During my internship, I really started to see why trust too much on AI isn't a good idea. At first, I used AI for a lot of things, but then I noticed something I wasn't really thinking for myself. It felt like I was just taking answers instead of actually learning. That's when I decided to stop depending on AI so much and try solving things on my own.

One of the biggest things I realized is that AI can't replace human thinking. It can give answers, but it doesn't really understand the situation like a person does. In team discussions, AI can't come up with new ideas or see things from different angles like humans can. I saw how important it is to trust my own thoughts and learn from experience instead of just asking a machine.

I also noticed that depending on AI too much was stopping me from improving my own skills. When I worked through problems by myself or with my teammates, I actually learned more. My critical thinking got better, and I became more confident in making decisions. If I had just used AI for everything, I wouldn't have grown as much.