

An Industry Internship Report

An Internship Report for

Course code and Course Title: CSA-652 Industry Internship

Credits: 16

Submitted in partial fulfillment of Master's Degree

Master's of Computer Application

by

GRISHMA GANESH CHODANKER

Seat Number: 2259

ABC ID: 435285752728

PRN: 201911579

Under the Mentorship of

MR. SANGEET SAMAL

Computer Science & Technology

Goa Business School



GOA UNIVERSITY

DATE: JUNE 2024

Examined by:

Seal of the School/Dept

DECLARATION BY STUDENT

I hereby declare that the data presented in this Internship report entitled, “An Industry Internship Report at Zapcom Solutions Pvt Ltd” is based on the results of investigations carried out by me at Zapcom Solutions Pvt Ltd, under the mentorship of Mr. Sangeet Samal and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will not be responsible for the correctness of observations / experimental or other findings given in the internship report/work.

I hereby authorize the University authorities to upload this internship report on the University repository or anywhere else as the UGC regulations demand and make it available to anyone as needed.

Date: 14 June 2024

Grishma G. Chodanker

Place: Goa University

Seat no: 2259

COMPLETION CERTIFICATE

This is to certify that the internship report “An Industry Internship Report at Zapcom Solutions Pvt Ltd” is a bonafide work carried out by Ms. Grishma Ganesh Chodanker under my mentorship in partial fulfillment of the requirements for the award of the degree of Master of Computer Application in the Discipline of Computer Science and Technology at Goa Business School, Goa University.

Date: 14 June 2024

Name of Mentor: Sangeet Samal

Place: Bangalore, Karnataka

CONTENTS

Chapters	Particulars	Page Numbers
	Offer Letter	i
	Internship Certificate	ii
	Acknowledgments	iii
	Executive summary	iv
1	Organization/Company	1-4
1.1	Birds-eye-view	
1.2	Products/services	
1.3	Sections within the organization	
2	Task(s) handled	5-13
3	Learning	14-20
4	Challenges	21-22
	Appendix I: Sample of work done	23
	Appendix II: Photos while at work	24

OFFER LETTER



2nd January 2024

Ms. Grishma Ganesh Chodanker
Mobile # 7038149338

LETTER OF INTERNSHIP

Dear Grishma,

Congratulations!

Consequent to your conversation held with us, we are pleased to offer you an internship as “Intern” at Zapcom Solutions Pvt Ltd on the terms and conditions mentioned below:

Current Place of Posting: Bangalore
Stipend: Rs.25,000/- per month
Internship Start Date: 8th January 2024

This internship is for a period of **6 months** and based on your performance the company will evaluate full time opportunity for you with the organization. You are obliged to observe the work regulations in force at Zapcom, as far as the punctual beginning and ending of work within the working hours binding for the employees of Zapcom, the discipline at work and the reliable work performances are concerned.

During that term, company may terminate this agreement for any reason or no reason with fifteen (15) days' notice. The terms of this Agreement shall be governed by and interpreted in accordance with the laws of India.

You will be given a laptop and its accessories during the training in Zapcom. The same will have to be returned by you to Zapcom on completion of the training.

Please sign and return the duplicate copy of this letter in token of your acceptance. We look forward to welcoming you in the organization on **8th January 2024** at 11 am.

Yours faithfully,

For ZapCom Solutions Pvt Ltd,

A handwritten signature in black ink, appearing to read "Srinivas".

SRINIVAS KOTHAKOTA
COO

Accepted

A handwritten signature in black ink, appearing to read "Grishma Chodanker".

GRISHMA CHODANKER

INDIA
Zapcom Solutions Pvt. Ltd
9th Floor, Gamma Tower, Sigma Soft Tech Park,
Whitefield, Bangalore - 560066
Ph: +91-80-67232300

www.zapcom.com

USA
Zapcom Group Inc.
105 Decker Court, Ste. 810 Irving,
TX 75062.
Ph: (972)441-2081



31st May 2024

TO WHOMSOEVER IT MAY CONCERN

This is to inform you that **Ms. Grishma Ganesh Chodanker, ZC00611** is currently undergoing internship at our company, **Zapcom Solutions Pvt. Ltd** from 8th January 2024.

During her tenure she has met the expectations of her team lead/mentor/guide and found to be regular and sincere.

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

For Zapcom Solutions Pvt. Ltd.

A handwritten signature in black ink, appearing to read "Srinivas Reddy Kothakota".

Srinivas Reddy Kothakota
Chief Operating Officer

INDIA

Zapcom Solutions Pvt. Ltd
9th Floor, Gamma Tower, Sigma Soft Tech Park,
Whitefield, Bangalore - 560066
Ph: +91-80-67232300

www.zapcg.com

USA

Zapcom Group Inc.
105 Decker Court, Ste. 810 Irving,
TX 75062.
Ph: (972)441-2081

ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude to all the individuals and teams who supported me throughout my internship.

I extend my sincere thanks to Goa Business School, Goa University, and the Department of Computer Science and Technology for providing this invaluable opportunity. Thanks to my professor and guide, Mr. Hanumant Redkar, for his constant support and encouragement.

I am immensely grateful to Mr. Kishore Pallamerreddy (CEO) for allowing me to intern at ZapCom Solutions. His leadership has created an environment conducive to growth and learning. I would also like to thank Mr. Manjunath Sirur (Data Science Lead), Mr. Sangeet Samal (QA Lead), and my colleagues Tejasree, Ajay Yadlapalli, Leonora Fernandes, Ramachandran, and Pooja GS for their guidance and support throughout this journey.

I also express my deepest appreciation to my family and friends for their encouragement, and belief in my abilities. Their support has been instrumental in successfully progressing through my internship.

Thank you all for your invaluable support and guidance.

EXECUTIVE SUMMARY

Organization Overview

Zapcom is a global product and engineering company that designs and develops custom software solutions tailored to meet specific business needs. Their mission is to assist partners in achieving business goals through innovative technology. Zapcom's core competencies include custom software solutions and digital transformation, offering services such as data engineering, cloud solutions, UI/UX design, and digital strategy consulting. They serve industries like healthcare, finance, retail, and telecommunications, leveraging cutting-edge technologies to drive sustainable growth and innovation.

Tasks Handled

During my internship at Zapcom, I worked on the Onverity project, an integrated platform for home services. As a Quality Assurance (QA) intern, I conducted manual testing for front-end and back-end user stories. My tasks included requirement analysis, test case design and execution, and defect tracking. I created tasks, and followed Agile methodologies, gaining hands-on experience in a collaborative and fast-paced environment.

Learning

The internship provided practical exposure to various aspects of QA and software testing. I enhance my skills in manual and automated testing, learning to use Cypress and Karate. I was introduced to practices which helped improve efficiency and ensure high-quality outcomes. Additionally, I gained insights into team dynamics and the importance of collaboration within a well-coordinated team.

Challenges Faced

Adapting to new tools like the Karate framework and managing test cases in Azure DevOps was challenging. Applying theoretical knowledge in a fast-paced environment required a steep learning curve. UI automation with Cypress also presented initial challenges but ultimately expanded my skill set. Meeting deadlines and balancing multiple tasks required effective time management and prioritization, especially within the iterative nature of Agile development.

Conclusion

My internship at Zapcom was an invaluable learning experience, allowing me to apply academic knowledge to real-world projects and innovate my approach to tasks. Despite the challenges, I became more skilled, confident, and prepared for future roles in QA and software testing. The internship provided a solid foundation for my career, enhancing my technical abilities and reinforcing the importance of teamwork and effective communication in achieving project success.

CHAPTER 1: ORGANIZATION

1.1 BIRDS EYE VIEW

Zapcom is a global product and engineering company dedicated to designing and developing custom software solutions. Their mission is to help partners achieve their business goals through innovative technology. With a strong product mindset, Zapcom aims to inspire, engage, and transform businesses by creating impactful digital products and platforms.

Zapcom's core competencies lie in custom software solutions and digital transformation. They specialize in building tailored software solutions that meet specific business needs, offering services that range from travel connectivity platforms to machine learning engineering.

Additionally, Zapcom leads clients on their digital transformation journeys by designing, building, operating, and optimizing technology to help organizations adapt to the ever-evolving digital landscape.

Globally, Zapcom collaborates with clients to leverage their expertise in creating value and ensuring customer satisfaction. Their commitment to excellence has resulted in a growing list of satisfied clients. By staying at the forefront of technology trends, Zapcom continues to make a significant impact in the industry, driving sustainable growth and innovation for businesses worldwide.

1.2 PRODUCTS / SERVICES

Zapcom Group provides a comprehensive array of products and services designed to meet the evolving needs of modern businesses. Central to their offerings is custom software development, where they create bespoke solutions tailored to specific client requirements. Specializing in scalable platform development, Zapcom has developed advanced systems, including travel connectivity platforms integrating services like Expedia and Agoda, and AI-driven personalized cruise shopping experiences.

In data solutions, Zapcom excels at transforming raw data into actionable insights. Their services encompass data migration, engineering, visualization, and machine learning (ML) engineering, empowering businesses to leverage data for decision-making and innovation. Their cloud platform services enhance performance, reliability, and cost-efficiency, with expertise in cloud-native development, app modernization, and cloud transformation. Additionally, their enterprise asset management services integrate various business operations, fostering reusable technical assets and consistent innovation.

A notable project, AI Model Life Cycle Management, highlights Zapcom's expertise in developing sophisticated ML platforms that improve product and service quality in the hospitality industry. Utilizing Agile and Scrum methodologies, Zapcom ensures efficient and adaptive project delivery, driving measurable business value and competitive advantage for their clients.

1.3 SECTIONS WITHIN THE ORGANIZATION

Zapcom Group's organizational structure is designed to foster innovation, agility, and operational efficiency, with a primary focus on client success and technological excellence. Leading the company is Founder and CEO Kishore Pallamreddy, whose visionary leadership guides the company's strategic direction. The executive team includes Sai Konda, the Chief Information Officer, who oversees IT strategies; Srinivas Kothakota, the Chief Operating Officer, managing daily operations and project execution; Deepak Puranam, the Chief Product Officer, driving product development and innovation; Paul Lehman, the Chief Commercial Officer, leading business development and client relationships; and Pooja Parthi, the Head of HR, focusing on talent acquisition and organizational culture.

The company benefits from the strategic insights of its Board of Advisors and Directors, featuring seasoned professionals like Jim Fitzpatrick and Joan Khuel, who provide valuable guidance on industry trends and corporate governance. Kumar Saurabh Johny, as the Head of Innovation and AI Strategy, leads initiatives in emerging technologies and artificial intelligence, ensuring Zapcom stays at the forefront of tech advancements.

Zapcom's internal structure is divided into several key departments, each specializing in critical business areas. These include Product Development, where innovative software solutions are conceptualized and built; Data Solutions, which focuses on data engineering and analytics; Cloud Platforms, dedicated to optimizing cloud infrastructure and services; and Enterprise Asset Management, which handles the integration and management of business operations. Each department is staffed with skilled professionals committed to delivering high-quality solutions and achieving client satisfaction.

This well-organized yet flexible structure enables Zapcom to respond swiftly to market demands and client needs, providing tailored, effective solutions in a rapidly changing technological landscape. By maintaining a collaborative and client-centric culture, Zapcom continues to enhance its service offerings and deliver exceptional value to its global clientele.

CHAPTER 2: TASK(S) HANDLED

2.1 SECTION(S) WORKED IN:

I was assigned to a Quality Assurance (QA) role as a shadow resource for the Onverity project. This role involved working closely with the QA team and collaborating with other departments to ensure the application's functionality and performance.

2.2 WORKING SCHEDULE:

- Duration of Internship: January 8, 2024, to July 8, 2024
- Working Hours: 9 AM to 6 PM (Sometimes differed according to the project requirements and tasks assigned which were to be completed on priority)
- Working Days: Monday to Friday

2.3 TYPE OF TASK(S) EXPOSED TO:

As a part of the QA team, I contributed to ensuring the quality and reliability of the Onverity application across these diverse service offerings.

2.3.1. Onverity Project Overview:

The Onverity project is an integrated platform designed to provide customers with a wide range of home service solutions. It aims to enhance customer experience by offering streamlined and efficient services across various domains. The project encompasses multiple brands, each specializing in specific home services:

- DVW (Dryer Vender Wizard): Specializes in dryer vent cleaning and maintenance, ensuring home safety and appliance efficiency.
- HMS (House Master Service): Offers comprehensive home inspection services, helping homeowners identify potential issues and maintain property value.
- FSP (Five Star Painting): Provides professional painting services for residential and commercial properties, focusing on quality and customer satisfaction.
- MOJ (Mosquito Joe): Focuses on mosquito control and prevention services, contributing to a safer and more comfortable outdoor living environment.

2.3.2 Description of tasks handled

I was involved in various aspects of QA, including both manual and automated testing

2.3.2.a. Manual Testing:

- a. Requirement Analysis: Reviewed user stories and requirements to understand what needed to be tested and why.
- b. Test Case Design: Created detailed test cases based on user stories, covering all possible scenarios, including edge cases.
- c. Execution: Conducted thorough manual testing for both FED and BED stories to ensure the application met the required specifications and functioned correctly.
- d. Defect Tracking: Identified and documented defects, worked closely with developers to resolve issues, and re-tested to confirm fixes.

Testing Front-end (FED) Stories:

- Verify UI behavior and functionality to ensure it aligns with expectations.
- Confirm that all UI elements display correctly and are responsive across different devices.
- Test navigational paths to ensure seamless user interactions.
- Validate user inputs to ensure they yield the intended outcomes.
- Ensure consistent visual layout and user experience.

Testing Back-end (BED) Stories:

- Test server-side logic and APIs using tools like Postman or Swagger UI.
- Conduct authentication and authorization checks for secure resource access.
- Verify functionality with both positive and negative scenarios:
 - Positive scenarios include testing with valid required and optional parameters.
 - Negative scenarios involve testing for invalid inputs, null values, and special characters.
- Validate API responses against predefined standards:
 - Ensure correct status codes (e.g., 200 for success, 400 for client errors).
 - Handle errors gracefully and provide meaningful error messages.
- Perform type validation to ensure data integrity and consistency.
- Verify that API responses adhere to expected formats and contain the necessary data.
- Test various scenarios such as customer creation and data manipulation operations.
- Ensure robust error handling and prevention of unexpected server errors (500).

2.3.2.b. Automation Testing:

Cypress for UI Stories: Cypress automation tool to create and run automated tests for user interface-related stories. This involved scripting test cases that simulate user interactions to verify that the front-end behaved as expected.

Karate for BED Stories: Employing the Karate framework tool to automate the testing process for back-end stories. This included scripting API tests to ensure that the back-end services were reliable and met performance standards.

2.3.2.c. QA Process Steps:

Create Tasks: Initiating and organizing tasks for each user story to ensure all testing activities were tracked and managed efficiently.

QA Analysis: Following a structured template to analyze user stories, including:

- a. User Story Overview: Understanding the requirement, business use case, and purpose of the story.
- b. Roles Involved: Identifying users involved and those affected by the change.
- c. Impacted Areas: Communicating with developers and Product Owners (POs) to identify impacted areas.
- d. Test Scope: Defining testing types (e.g., functional, regression, integration) and environment (e.g., develop, release, feature branch).
- e. Positive Scenarios: Documenting happy path scenarios where everything works as expected.
- f. Negative Scenarios: Identifying scenarios that could fail and ensuring they are tested.
- g. Validations: Performing various validations such as mandatory field, format, data type, consistency, uniqueness, file upload, and custom business rules.
- h. Error Handling: Identifying and testing error scenarios such as user-facing errors, API failures, and authentication errors.
- i. End to End Test Cases: Writing comprehensive end-to-end scenarios to ensure full workflow coverage.

QA Test Case Design: Writing detailed test case scenarios, including both positive and negative test cases. And to be written in gherkin format, (e.g Given When Then). These were documented under the master test plan on Azure DevOps (ADO).

QA Test Case Execution: Executing the designed test cases meticulously, ensuring all aspects of the story were tested.

QA Automation: Automating test cases to enhance efficiency and repeatability of tests, reducing manual effort and increasing test coverage.

2.4 HANDS-ON EXPERIENCE:

The tasks were carried out following scrum practices, with work organized in sprints of 10 working days. Every sprint, I was assigned specific stories for testing based on my capacity and the sprint plan. This approach provided me with hands-on experience in:

a. Writing and Executing Test Cases:

I developed skills in designing test cases in cucumber (gherkin format) that cover various scenarios, including edge cases and unexpected inputs. Executing these tests helped me understand the intricacies of the application and identify potential issues.

b. Identifying and Reporting Bugs:

I learned to meticulously document defects, providing clear and concise information to developers to facilitate quick resolution.

c. Collaborating with the Development Team:

Regular interactions with developers and other stakeholders helped me improve my communication skills and understand the importance of teamwork in the QA process.

d. Participating in Scrum Activities:

Involvement in sprint planning, daily stand-ups, sprint reviews, and retrospectives gave me a comprehensive understanding of agile methodologies and their application in real-world projects.

2.5 RELATIONSHIP OF THE TASK WITH THE COURSE STUDIED IN THE CLASSROOM:

During my coursework, I completed a dedicated software testing course that was directly relevant to my role as a QA intern. This course comprehensively covered essential testing principles, techniques, and tools, which proved to be highly beneficial during my internship. The practical application of knowledge gained from the classroom was instrumental in several key areas:

2.5.1 Understanding Testing Methodologies

The coursework provided a robust foundation in various testing methodologies such as unit testing, integration testing, system testing, and acceptance testing. This knowledge was crucial for designing effective test cases and understanding the overall testing strategy within a real-world context. For instance, unit testing principles helped me ensure that individual components of the software functioned correctly, while integration testing allowed me to verify the interactions between different modules. System testing enabled a comprehensive evaluation of the entire application, and acceptance testing ensured that the software met the required business needs and user expectations.

2.5.2 Applying Theoretical Concepts

The theoretical concepts learned in the classroom were directly applicable to real-world scenarios encountered during my internship, significantly enhancing my understanding and skills. Concepts such as the testing lifecycle, defect management, and test automation were particularly useful. The testing lifecycle knowledge helped me comprehend the end-to-end process of software testing, from requirement analysis to test closure. Understanding defect

management allowed me to efficiently track and manage bugs, ensuring timely resolution and maintaining software quality. Additionally, the principles of test automation learned in class enabled me to contribute effectively to automation projects, making the testing process more efficient and reliable.

2.5.3 Utilizing Testing Tools

The course introduced me to various testing tools, some of which I used during my internship, such as Cypress and Karate for automation testing. Familiarity with these tools allowed me to quickly adapt and contribute to the automation efforts at my internship. For example, Cypress was particularly useful for end-to-end testing of web applications, providing a reliable and easy-to-use platform for writing and running tests. Similarly, the Karate framework facilitated effective API testing, enabling me to validate the functionality, performance, and security of APIs.

Overall, the software testing course provided a solid foundation that significantly enhanced my ability to perform QA tasks efficiently. It contributed to my overall development as a QA professional during the internship, equipping me with the knowledge and skills necessary to excel in my role. The direct application of classroom knowledge to practical scenarios not only reinforced my learning but also allowed me to make meaningful contributions to the projects I worked on.

CHAPTER 3: LEARNINGS

3.1 SQL

This course provided a thorough introduction to SQL and relational databases, covering key topics like relational database principles, database creation, and handling records. It included fundamentals of the SELECT statement, advanced SQL queries, subqueries, aggregate functions, and SQL clauses such as WHERE, LIMIT, and OFFSET. Numerous practice exercises reinforced learning through hands-on tasks like writing and executing SQL queries.

3.2 POWERBI

The Power BI course focused on designing effective Business Intelligence (BI) tools. Key topics included BI design principles, effective use of color, and enterprise BI design. Advanced aspects covered data storytelling and creating BI tools for web platforms.

3.3 POSTGRESQL

The PostgreSQL Bootcamp provided a comprehensive journey from beginner to advanced proficiency. Starting with fundamental topics like table creation and basic queries, it progressed to more intricate concepts such as data filtering, joins, and constraints. Advanced sections covered aggregate functions, date/time manipulation, and performance optimization techniques like indexing. Specific PostgreSQL features like schemas, array functions, and JSON were thoroughly explored. Practical skills were honed through exercises in common table expressions, window functions, and the creation of stored procedures and triggers. This holistic curriculum equipped me with the knowledge and skills to effectively manage and optimize PostgreSQL databases for various applications.

3.4 SDET

During SDET training, I gained comprehensive knowledge in software testing methodologies and techniques, starting with a thorough understanding of manual testing. This included exploring various SDLC models such as Waterfall, Spiral, and V-Model, along with essential concepts like static and dynamic testing methods, and the distinction between validation and verification. I also learned about the importance of both white box and black box testing techniques in ensuring software quality.

Moving on to system testing, I delved into UI testing, usability testing, functional testing, and non-functional testing, which enabled me to conduct comprehensive assessments of software applications' interfaces and functionalities. I also familiarized myself with the Software Testing Life Cycle (STLC). The Software Testing Life Cycle (STLC) comprises six key phases:

1. **Requirement Analysis:** In this phase, the testing team analyzes the project requirements to understand what needs to be tested. This involves reviewing documents such as Requirement Specifications (RS), Business Requirement Documents (BRD), and Technical Requirement Documents (TRD) to identify testable features and functionalities.
2. **Test Planning:** Test planning involves defining the testing objectives, scope, resources, and timelines. Test plans are created based on the analysis of requirements, outlining the testing approach, test coverage, entry/exit criteria, and risk assessment. This phase sets the foundation for the entire testing process.
3. **Test Case Development:** In this phase, test cases are designed and developed based on the test plan and requirements analysis. Test cases specify the steps to be executed, the

expected outcomes, and the test data required for each test scenario. Test cases are often organized into test suites to facilitate efficient testing.

4. **Test Environment Setup:** Test environment setup involves configuring the testing environment to replicate the production environment as closely as possible. This includes installing the necessary software, hardware, and network configurations required to execute the test cases effectively. Ensuring the stability and reliability of the test environment is crucial for accurate testing results.
5. **Test Execution:** Test execution is the phase where test cases are executed according to the test plan in the designated test environment. Testers execute the test cases, record the results, and report any deviations from expected outcomes as defects. Test execution is iterative and may involve multiple cycles to ensure thorough testing coverage.
6. **Test Cycle Closure:** Once all test cases have been executed, and defects have been reported and resolved, the test cycle is closed. Test closure activities include summarizing test results, preparing test closure reports, conducting lessons learned sessions, and obtaining stakeholders' sign-off on the testing phase. Test cycle closure ensures that all testing activities are completed satisfactorily and that the software is ready for release or further development phases.

Furthermore, I delved into the intricacies of manual test case design and execution, focusing on techniques such as boundary value analysis, equivalence class partitioning, and decision tables. I learned the importance of a tester's mindset, emphasizing effective communication of findings and adopting an Agile testing mindset.

3.5 ENHANCED TECHNICAL SKILLS

During my internship, I gained proficiency in UI automation using Cypress and API testing with Karate. I also learned to manage test cases and defects in Azure DevOps (ADO).

3.6 IMPROVED COMMUNICATION AND TEAMWORK

Working in an Agile environment, I developed communication and teamwork skills through daily stand-ups, sprint planning, and regular retrospectives, ensuring collaborative progress and problem-solving.

3.7 PERSONAL GROWTH AND SKILL ENHANCEMENT

I faced challenges adapting to new tools like Karate for API testing and managing tasks in ADO. Learning UI automation with Cypress expanded my skill set, and Agile development required effective time management and prioritization.

3.8 PRACTICAL EXPOSURE

The internship provided practical exposure to QA and software testing, allowing me to apply theoretical knowledge to real-world scenarios. I became proficient in using tools like Cypress and the Karate framework.

3.9 INNOVATIVE PRACTICES

I introduced innovative practices, such as reusable test scenarios and scripts, scenario tagging, and report generation in Karate, improving efficiency and output quality.

3.10 TEAM DYNAMICS AND SELF-DISCOVERY

The internship revealed my strengths and areas for improvement, enhancing my communication and teamwork skills.

3.11 TOOLS & TECHNOLOGIES LEARNT



SQL

Structured Query Language (SQL) is used for managing and manipulating relational databases. It allows for querying, updating, and managing data within a database.



PostgreSQL

PostgreSQL is an advanced, open-source relational database management system that supports both SQL and JSON querying. It is known for its robustness, extensibility, and standards compliance.



Power BI

Power BI is a business analytics tool by Microsoft that allows users to visualize data and share insights. It connects to various data sources and provides interactive dashboards and reports.

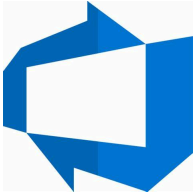


Cypress

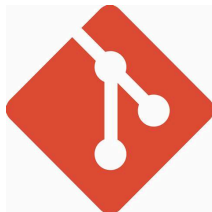
Cypress is a modern front-end testing framework designed for web applications. It provides an easy-to-use interface for writing and running end-to-end tests, focusing on reliability and ease of debugging.

**Karate**

Karate is an open-source tool for API testing that combines API automation, mocks, and performance testing into a single framework. It uses a Gherkin-like syntax to write test scenarios.

**Azure DevOps**

Azure DevOps is a Microsoft platform providing development tools, including version control, project management, build automation, and release management, facilitating Continuous Integration and Continuous Deployment (CI/CD).

**Git**

Git is a distributed version control system that tracks changes in source code during software development. It allows multiple developers to work on the same project simultaneously, ensuring version control and collaboration.

**Postman**

Postman is a collaboration platform for API development, allowing users to design, test, and document APIs. It provides a user-friendly interface for sending requests and analyzing responses.

**Swagger UI**

Swagger is an open-source framework used to design, build, document, and consume RESTful web services. It enables API documentation and helps in creating interactive API documentation.



Visual Studio

Visual Studio is an integrated development environment (IDE) from Microsoft. It supports various programming languages and is used for developing computer programs, websites, web apps, web services, and mobile apps.



Cucumber

Cucumber is a tool for running automated tests written in Gherkin. It supports behavior-driven development by allowing developers to write tests in plain language, bridging the gap between business and technical teams.

Gherkin

Gherkin is a language used for writing human-readable tests that describe the behavior of software. It uses simple syntax to define test cases and is used with Cucumber for behavior-driven development (BDD).

3.12 LEARNING PLATFORMS

- Udemy
- LinkedIn learning
- Youtube

CHAPTER 4: CHALLENGES

One of the significant challenges was adapting to activities and tools I was initially unfamiliar with, such as using the Karate framework for API testing and managing test cases in Azure DevOps (ADO). Although I had theoretical knowledge, applying it in a practical, fast-paced environment required a steep learning curve. Learning UI automation with Cypress, a new tool for me, also presented an initial challenge but ultimately expanded my skill set significantly.

Meeting deadlines was another challenge, especially during the initial phase of the internship. Balancing multiple tasks, ensuring thorough testing, and maintaining high-quality standards within tight timelines required effective time management and prioritization. The iterative nature of Agile development also meant constantly adjusting to changes and updates, which added to the complexity.

Adjusting to a new work culture environment was also a significant challenge during my internship at ZapCom. Coming into a new workplace with its own set of norms, communication styles, and team dynamics required a period of adaptation. Understanding the company's values, collaborating with colleagues from diverse backgrounds, and navigating the organizational structure were essential aspects of this adjustment process. Additionally, learning to effectively communicate and integrate within the team while maintaining productivity added complexity to the overall experience. Despite these challenges, the opportunity to immerse myself in a new work culture environment ultimately contributed to my personal and professional growth, enhancing my adaptability and interpersonal skills.

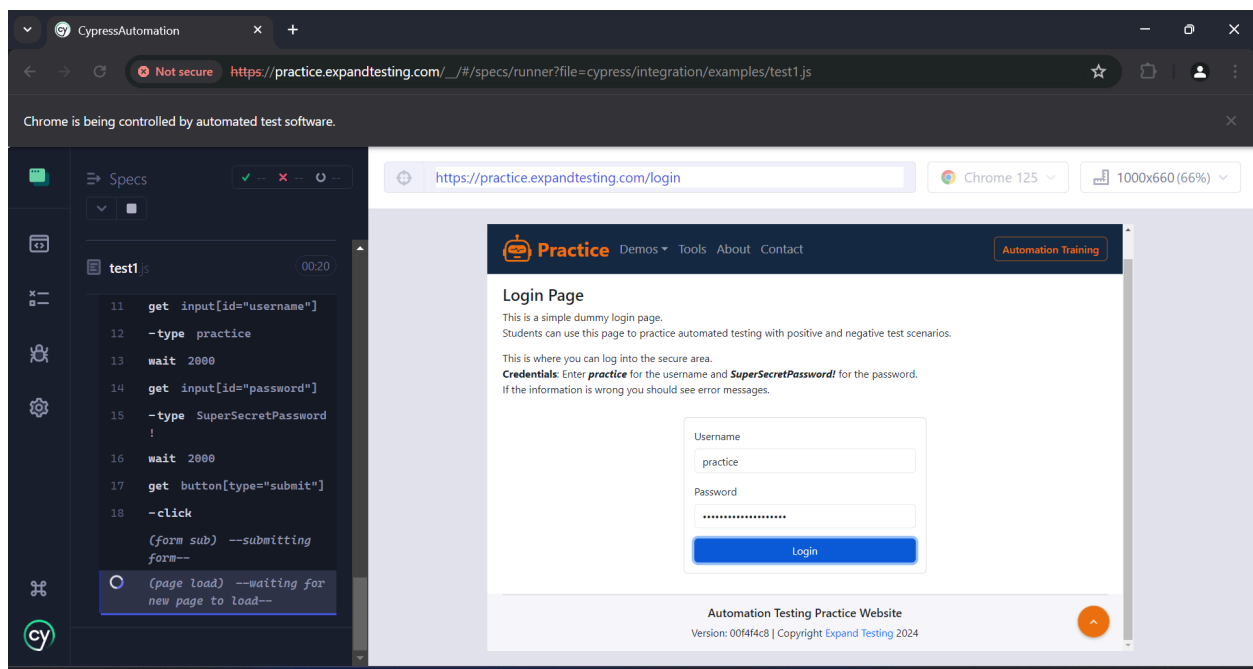
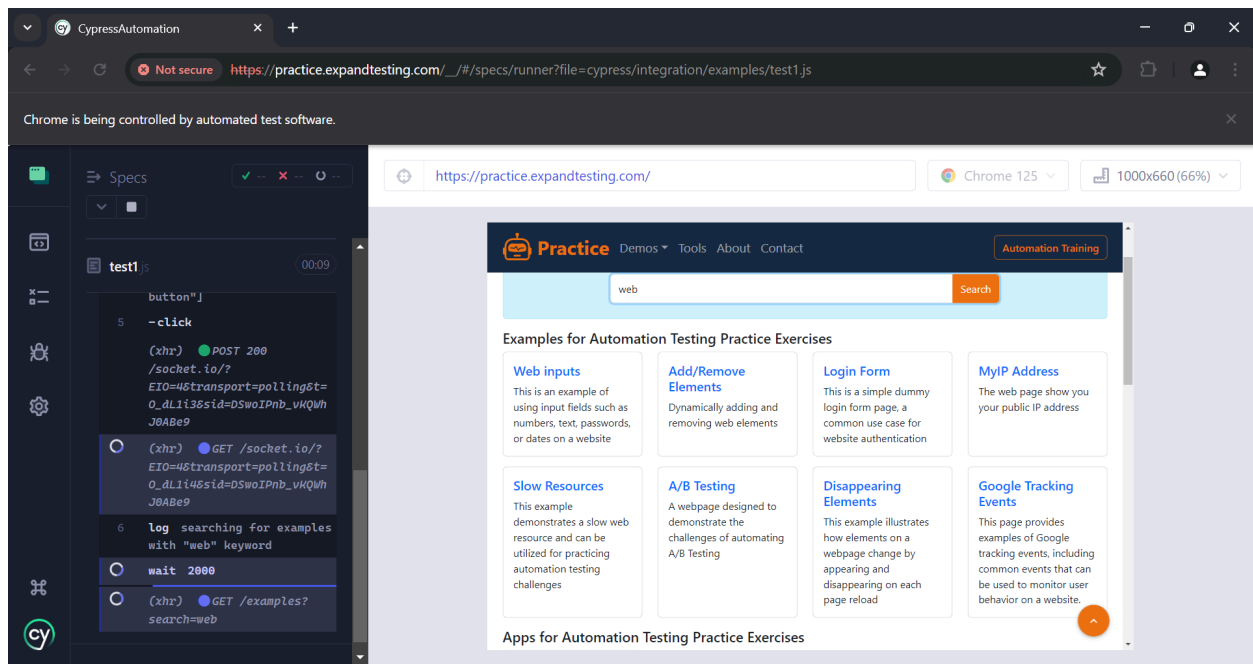
Overall, the internship at ZapCom was an invaluable learning experience that allowed me to apply my academic knowledge to real-world projects, innovate in my approach to tasks, and gain deeper insights into my professional strengths and preferences. Despite the challenges, I emerged more skilled, confident, and prepared for future roles in the QA and software testing field.

Drawing from their extensive experience of successfully delivering hundreds of projects, they have designed efficient ways of working that are tailored to each client's specific outcomes.

Their aim is to ensure that their clients achieve their desired results with optimal efficiency and effectiveness. Through their work, they strive to inspire and engage, creating meaningful experiences that have a lasting impact.

Sample of the work done

- UI Automation Testing



Photos while at work

