

Industry Internship at Zapcom Solutions Pvt. Ltd

An Internship Report for

Course code and Course Title: CSA-652 Industry Internship

Credits: 16

Submitted in partial fulfilment of Master's Degree

Master of Computer Application

by

SHREYES PRABHU DESSAI

Seat Number: 2204

ABC ID: 244295639628

PRN: 201610613

Under the Mentorship of

M. HARINATHA REDDY

(Sr. Software Developer)

Goa Business School

Master of Computer Application



GOA UNIVERSITY

Date: June 2024

Examined by:

Seal of the School

DECLARATION BY STUDENT

I hereby declare that the data presented in this Internship report entitled, “Industry Internship at Zapcom Solutions Pvt. Ltd” is based on the results of investigations carried out by me in the Computer Science And Technology at the Goa Business School, Goa University/Zapcom Solutions Pvt. Ltd., under the mentorship of Mr. Hanumant Redkar 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/College will not be responsible for the correctness of observations / experimental or other findings given the internship report/work.

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

Date: 12 June 2024

Shreyes Prabhu Dessai

Place: Goa University

Seat no: 2204

OFFER LETTER



2nd January 2024

Mr. Shreyes Prabhu Desai
Mobile # 7719894930

LETTER OF INTERNSHIP

Dear Shreyes,

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,

SRINIVAS KOTHAKOTA
COO

Accepted

Shreyes Prabhu Dessai

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

INTERNSHIP CERTIFICATE



31st May 2024

TO WHOMSOEVER IT MAY CONCERN

This is to inform you that **Mr. Shreyes Prabhu Dessai, ZC00609** is currently undergoing internship at our company, **Zapcom Solutions Pvt. Ltd** from 8th January 2024.

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

This letter is being issued on his 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
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105 Decker Court, Ste. 810 Irving,
TX 75062.
Ph: (972)441-2081

COMPLETION CERTIFICATE

This is to certify that the internship report “Industry Internship at Zapcom Solutions Pvt. Ltd” is a bonafide work carried out by Mr Shreyes Prabhu Dessai under my mentorship in partial fulfillment of the requirements for the award of the degree of Master of Computer Applications in the Discipline of Computer Science and Technology at the Goa Business School, Goa University.

(Signature and Name of Mentor)

Date: 12 June 2024

(Signature of Dean)

(School Stamp)

Date:

Place: Goa University

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to the following individuals and teams for their invaluable support, guidance, and encouragement throughout my internship at Zapcom Solutions:

I am immensely grateful to Mr. Kishore Pallamerreddy for providing me with the opportunity to intern at Zapcom Solutions. His vision and leadership have created a dynamic and enriching work environment that fosters growth and learning.

I extend my heartfelt thanks to Mr. M. HARINATHA REDDY for his dedicated mentorship and guidance. His expertise and insights in backend development have been instrumental in shaping my skills and knowledge during the internship.

I would like to express my appreciation to the HR and Accounts teams at Zapcom Solutions for their assistance throughout the internship. Their support in administrative matters and ensuring a smooth internship experience is highly valued.

I am thankful to Mr. Hanumant Redkar for providing me with the opportunity to undertake this internship. His support and encouragement have been instrumental in shaping my career trajectory.

EXECUTIVE SUMMARY

During my internship at Zapcom, I had the opportunity to engage in a dynamic and immersive learning experience, gaining valuable insights into software development, quality assurance, and innovation within the technology industry. Over the course of 6 months, I actively contributed to various projects and initiatives, leveraging my skills and knowledge to make meaningful contributions to the organization.

Zapcom is a leading technology company specializing in [brief description of the company's focus area, industry, and mission]. With a commitment to innovation and excellence, Zapcom offers a diverse range of solutions and services tailored to meet the evolving needs of its clients and stakeholders.

The primary objectives of my internship at Zapcom were to gain practical experience in software development and quality assurance processes, enhance my technical skills, and contribute to real-world projects within a professional work environment. Throughout the internship, I aimed to demonstrate adaptability, creativity, and a strong work ethic while actively seeking opportunities for learning and growth.

During my internship, I was actively involved in various activities and responsibilities, including:

- I served as a member of the Quality Assurance (QA) team, where I participated in manual front-end testing for the Capillary Abbott project, ensuring the quality and usability of the application.
- Contributing to Zapcom's internal ideathon and hackathon, where our team secured 2nd place in both competitions by developing innovative solutions to real-world challenges.
- Conducting market research and analysis for the ideathon project, focusing on the feasibility and market demand for a flight price prediction tool.
- Engaging in backend development using Python and integrating backend functionality with frontend user interfaces during the hackathon project.
- Collaborating with cross-functional teams to refine project objectives, identify technical requirements, and deliver impactful solutions within tight deadlines.

Throughout the internship, I gained valuable insights and achieved significant milestones, including:

- Deepening my understanding of core Java concepts, Spring framework, and Spring Boot, as well as front-end technologies such as JavaScript, React, and Node.js.
- Participating in online courses to enhance my skills in software development and staying updated with the latest industry trends and best practices.

- Successfully contributing to Zapcom's internal ideathon and hacathon projects, earning recognition for innovative thinking, technical expertise, and teamwork.
- Developing a functional prototype of a flight price prediction tool, showcasing my ability to translate ideas into tangible solutions and deliver impactful results.

My internship experience at Zapcom has been enriching and rewarding, providing me with valuable hands-on experience, professional development opportunities, and a deeper understanding of the technology industry. I am grateful for the mentorship, guidance, and support received from the Zapcom team, and I look forward to leveraging my newfound skills and knowledge to pursue future academic and career endeavors.

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ORGANIZATION/COMPANY

1.1 BIRDS EYE VIEW

Zapcom Solutions is a leading IT company with offices in Dallas, Texas; Dublin, California; Heredia, Costa Rica; Hyderabad, India; and Bangalore, India. With a global presence, Zapcom Solutions has successfully delivered more than 100 projects, earning a reputation for excellence and innovation in the industry.

Zapcom Solutions is a team of thinkers, builders, and operators driven by a passion for building digital products and platforms that have the power to transform revenue and cost curves. Their expertise lies in designing, building, operating, and optimizing technology solutions, leading their clients on a successful digital transformation journey.

Zapcom Solutions takes a data-centric approach to building products, platforms, and teams that drive delightful experiences and deliver measurable business value. Their focus is on creating solutions that align with their clients' goals, utilizing the latest technologies and industry best practices. Efficiency, agility, and collaboration define Zapcom Solutions' approach to building solutions.

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.

1.2 PRODUCTS / SERVICES

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1.3 SECTIONS WITHIN THE ORGANIZATION

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TASKS HANDLED

Capillary – Abbott Project :

During my internship at Zapcom, as part of the QA team assigned to the Capillary Abbott project, I undertook various tasks related to manual frontend testing. Some of the key responsibilities and tasks I handled include:

1. **Test Case Preparation:** I was responsible for creating detailed test cases based on the project requirements and user stories. This involved analyzing the software specifications, identifying test scenarios, and documenting test cases to ensure comprehensive test coverage.
2. **Test Execution:** I conducted manual testing of the front-end components of the Capillary Abbott project to verify their functionality, usability, and compatibility across different browsers and devices. This involved executing test cases, logging defects, and collaborating with developers to resolve issues.
3. **Regression Testing:** I performed regression testing to ensure that new developments and enhancements did not adversely affect the existing functionality of the application. This involved retesting previously implemented features and verifying their continued functionality.
4. **Bug Reporting and Tracking:** I meticulously documented any defects or issues identified during testing using the company's bug tracking system. I provided clear and detailed descriptions of the defects, along with steps to reproduce them, to facilitate efficient resolution by the development team.
5. **Collaboration and Communication:** I actively participated in daily stand-up meetings and collaborated with team members to discuss project progress, share updates, and address any challenges encountered during testing. I also communicated regularly with developers and project stakeholders to ensure alignment on testing priorities and timelines.

Zapcom Internal Ideathon and Hackathon:

During my internship, I had the opportunity to participate in Zapcom's internal ideathon and hackathon, where our team secured 2nd place in both competitions. The objective of these events was to foster innovation and creativity within the company by encouraging employees to propose and develop innovative solutions to real-world challenges.

- **Ideathon:** In the Zapcom internal ideathon, our team conceptualized and developed a solution aimed at predicting the lowest flight prices for customers. Our idea focused on leveraging data analytics and machine learning algorithms to analyze historical flight data and predict the optimal day for booking flights to obtain the lowest prices.
 - **Contribution:** My primary contribution during the ideathon was conducting market research to assess the feasibility and market demand for such a product. This involved analyzing existing solutions, gathering insights from industry reports, and identifying potential target demographics for our proposed solution.
- **Hackathon:** Subsequently, in the Zapcom hackathon, we further refined and implemented our idea, focusing on backend development and integration to create a functional prototype of the flight price prediction tool.
 - **Contribution:** During the hackathon, my role primarily revolved around backend development using Python. I was responsible for implementing the data processing and machine learning algorithms required for flight price prediction. Additionally, I played a key role in integrating the backend functionality with the frontend user interface, ensuring seamless communication and data flow between the two components.

LEARNINGS

Learnings in Java, Spring, and Spring Boot:

During my internship, I dedicated significant time to mastering Java programming and related frameworks. Here's a breakdown of my key learnings:

- **Java Programming:**
 - I deepened my understanding of core Java concepts, including collections, exception handling, streams, and inheritance. These concepts are foundational to effective Java programming and were essential for implementing robust solutions.
 - Additionally, I explored other Java concepts such as JDBC (Java Database Connectivity), Servlets, and JPA (Java Persistence API). These technologies enable Java applications to interact with databases and provide dynamic web functionality.
- **Spring Framework:**
 - I delved into the Spring framework, learning about dependency injection, aspect-oriented programming (AOP), and Spring MVC (Model-View-Controller). These concepts are fundamental to building enterprise-grade Java applications, providing modularity, and facilitating easier maintenance and testing.
- **Spring Boot:**
 - Furthermore, I expanded my knowledge by studying Spring Boot, a framework designed to simplify the development of stand-alone, production-grade Spring-based applications. I gained proficiency in creating Spring Boot applications, configuring application properties, and developing RESTful web services with minimal setup and configuration.

Learnings in JavaScript and React (Frontend):

To bolster my skills in front-end development, I focused on JavaScript and the React library. Here's what I learned:

- **JavaScript:** I deepened my understanding of JavaScript's core concepts, such as variables, functions, arrays, and loops. This knowledge was crucial for building dynamic and interactive user interfaces.
- **React Framework:** I immersed myself in React, a popular JavaScript library for building user interfaces. Through online courses, I learned about React's component-based architecture, state management, and virtual DOM manipulation. These skills empowered me to develop efficient and maintainable frontend applications.

Learnings in Node.js (Backend):

To round out my skill set in backend development, I dedicated time to learning Node.js. Here's what I gained from the experience:

- **Node.js:** I explored Node.js, a runtime environment for executing JavaScript code outside the browser. By completing online courses, I learned how to build server-side applications using Node.js, leveraging its asynchronous, event-driven architecture for scalable and efficient backend development.

By actively engaging in these online courses, I acquired a diverse skill set encompassing both front-end and back-end technologies. These learnings not only complimented my internship experience but also prepared me for future challenges in software development.

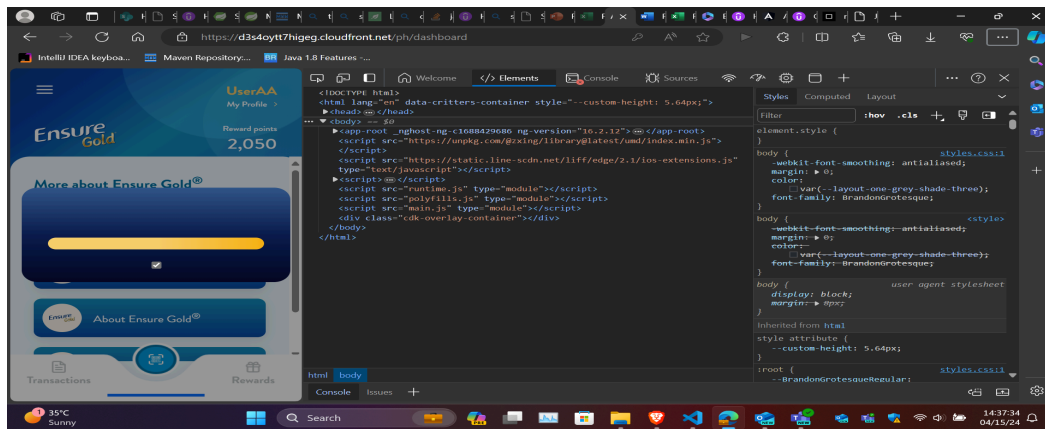
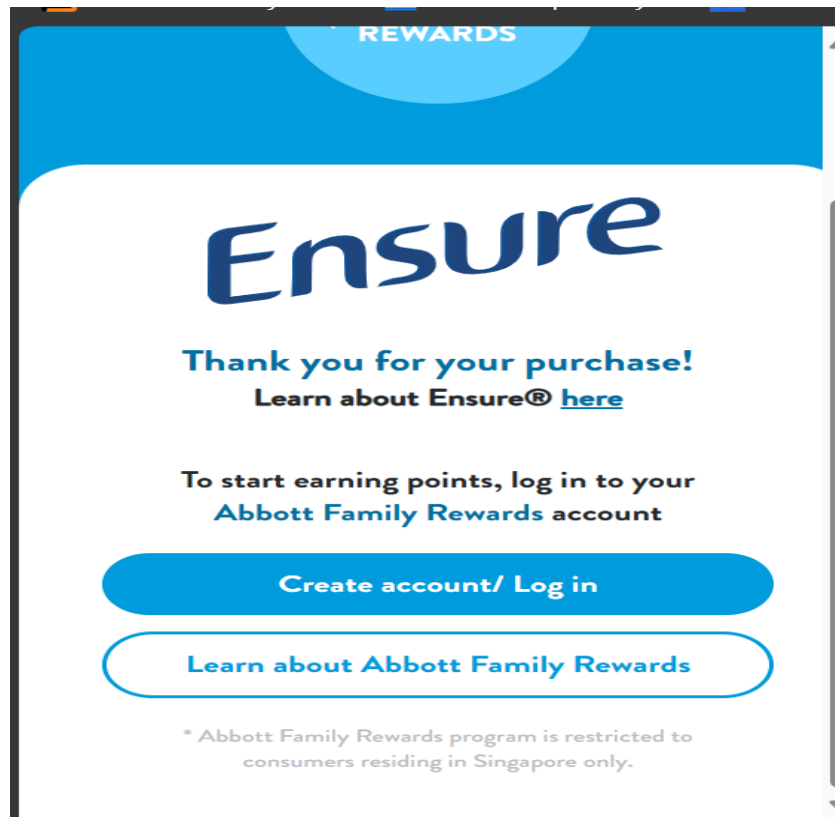
CHALLENGES

During my internship, I faced the dual challenge of fulfilling my responsibilities as a Quality Assurance (QA) team member while simultaneously continuing my learning journey in development-related areas. This situation presented several significant challenges:

- **Time Management:** Balancing the demands of QA tasks with dedicated time for learning new development concepts required meticulous time management. Striking the right balance between fulfilling my QA duties and investing time in self-study was essential to ensure productivity and progress in both areas.
- **Diverse Skillsets:** Transitioning between QA responsibilities, which involve rigorous testing procedures and attention to detail, and development-related learning, which requires creative problem-solving and coding skills, required flexibility in adapting to diverse skillsets and mindsets.

APPENDIX I: SAMPLES OF WORK DONE

CAPILLARY ABBOTT PROJECT AS QA



The screenshot shows a web browser with the URL `https://d3s4oytt7higeg.cloudfront.net/ph/rewards/product/product-list`. A modal titled "REDEEMING REWARDS" is displayed, stating: "For every purchase of the following participating Ensure Gold® products, you will earn these equivalent points."

- Ensure Gold® 1.6kg - 100 points
- Ensure Gold® 850g - 70 points
- Ensure Gold® 400g - 30 points

Accumulate a total of 200 points to redeem a P200 voucher!

Close

Per DOH-FDA CFRR Promo Permit 0009 s. 2023

The background shows a developer console with HTML and CSS code. The CSS includes a custom height for the container and a font family of BrandonGrotesque.

The screenshot shows a web browser with the URL `https://d2mrfx8opfts6.cloudfront.net/ph/signup/otp`. A modal titled "Phone verification" is displayed, showing "OTP verification" and "An authentication code has been sent to +63 1234567890".

9 9 9 9 9 9

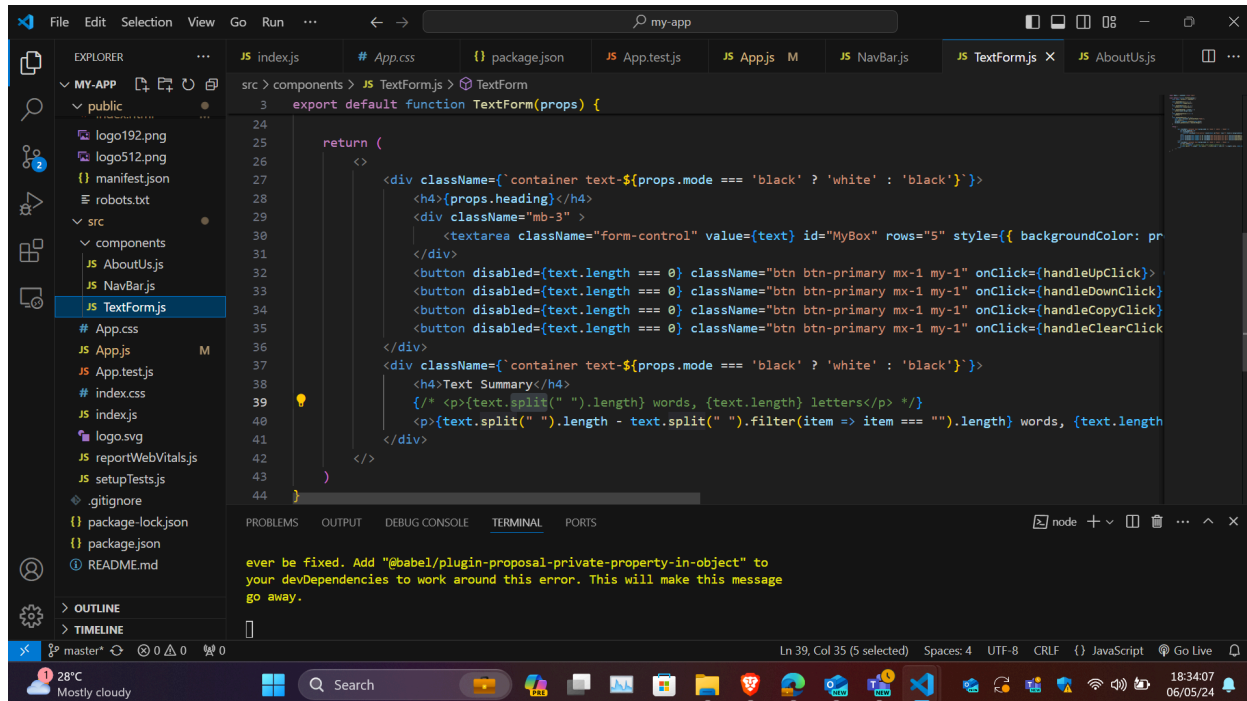
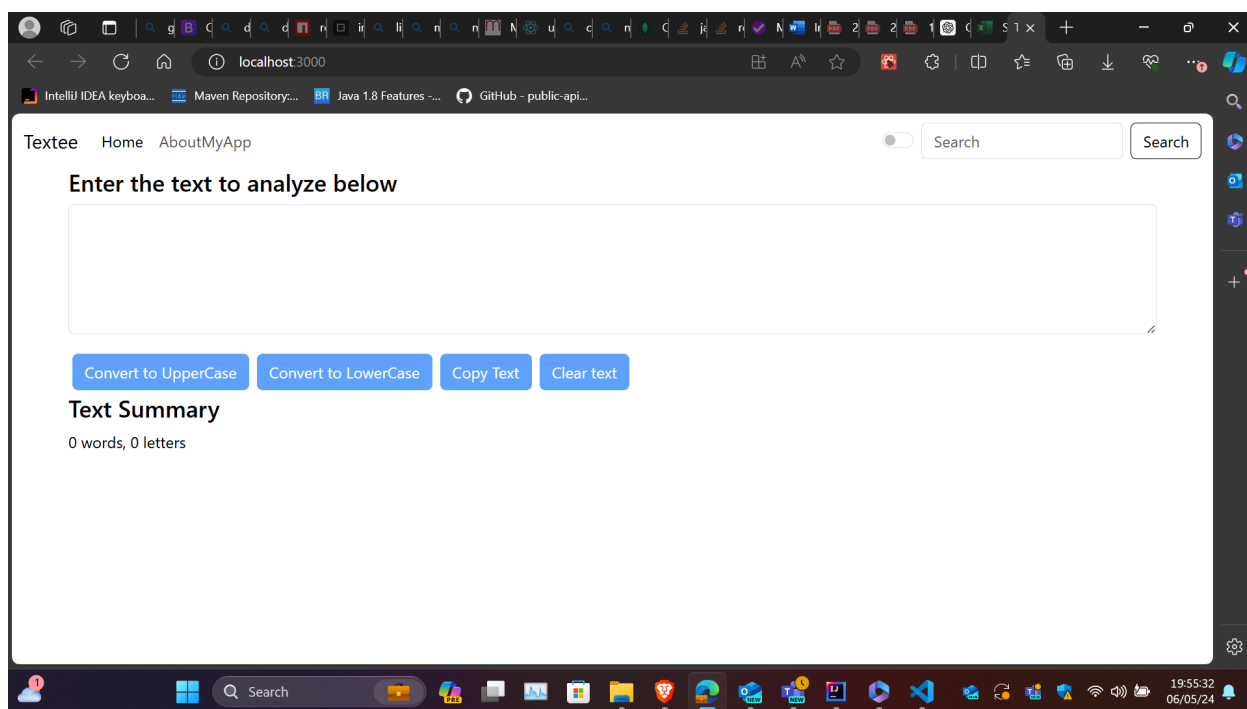
00:25 left

I didn't receive the OTP. [Resend OTP](#)

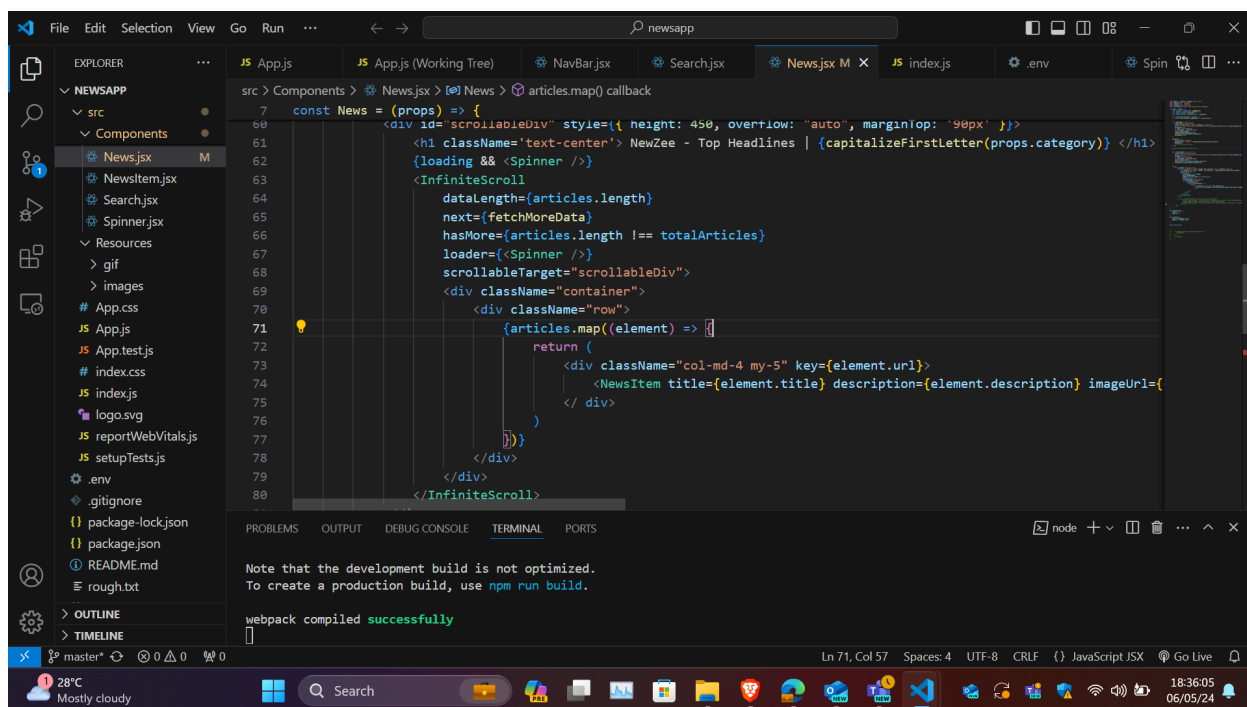
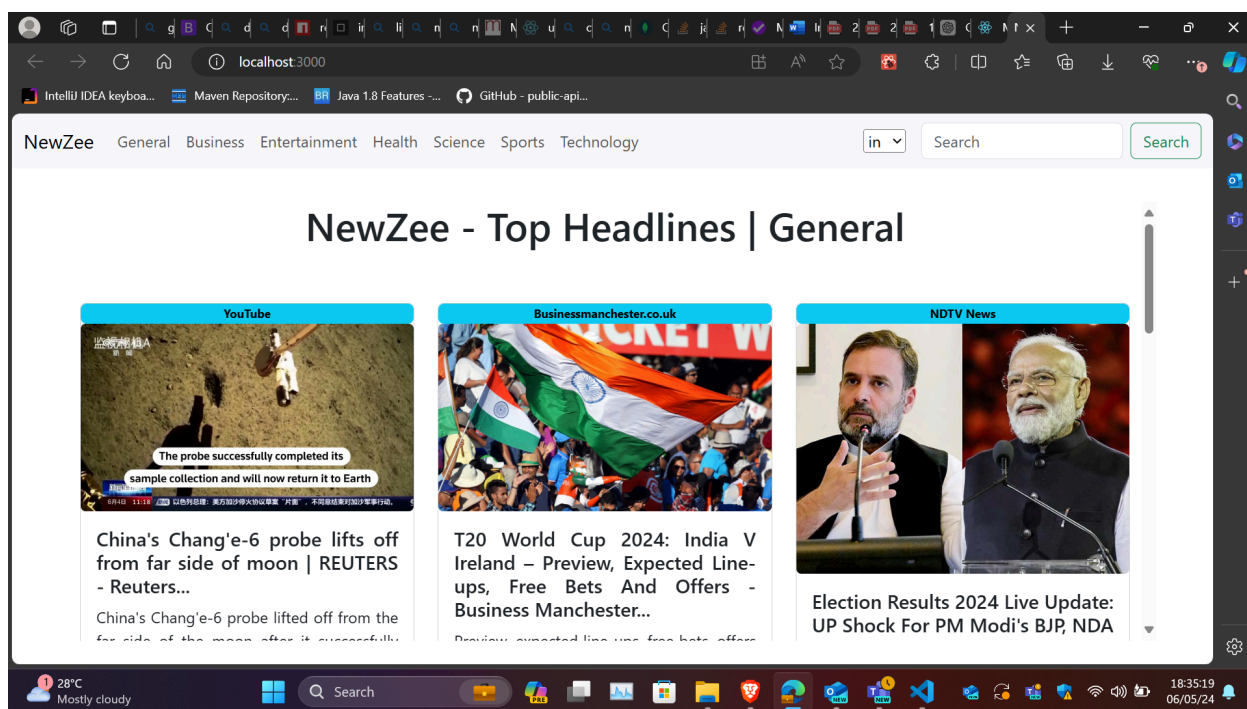
Confirm

The background shows a developer console with a list of network requests and an error message: "Error during Signup" with a status code of 409 and a message "Request failed with status code 409".

Textee APP developed using React



NewZee app developed using React



Banking_System developed using core Java and jdbc

```

10 public class AccountController {
11
12
13     public static Account getAccount(Integer accountId) {
14         String sql = "select * from account where \"accountId\"=? ";
15         Account account = null;
16
17         try (Connection con = DataSource.connect();
18             PreparedStatement st = con.prepareStatement(sql);) {
19             st.setInt( parameterIndex: 1, accountId);
20
21             try (ResultSet data = st.executeQuery()) {
22                 System.out.println("data.next : "+data.next());
23                 account = new Account(
24                     data.getInt( columnLabel: "accountId"),
25                     data.getString( columnLabel: "type"),
26                     data.getDouble( columnLabel: "balance")
27                 );
28             }
29         } catch (SQLException e) {
30             e.printStackTrace();
31         }
32         return account;
33     }
34 }

```

JobApp developed using Java, Spring , SpringBoot

```

28 @PostMapping("handleForm")
29 public JobPost success(@RequestBody JobPost jobPost) {
30     System.out.println("JobPost %%" + jobPost);
31     service.addJob(jobPost);
32     return jobPost;
33 }
34
35 @GetMapping("viewalljobs")
36 public List<JobPost> viewAllJobs() {
37     List<JobPost> jobs = service.getAllJobs();
38     // m.addAttribute("jobPosts", jobs);
39     return jobs;
40 }
41
42 @GetMapping("getjob/{postId}")
43 public JobPost getJobById(@PathVariable("postId") Integer postId) {
44     System.out.println(service.getJobById(postId));
45     return (service.getJobById(postId));
46 }
47
48 @GetMapping("findjob/{keyword}")
49 public List<JobPost> findJob(@PathVariable("keyword") String keyword) {
50     System.out.println(service.search(keyword));
51     return service.search(keyword);
52 }
53 }

```

APPENDIX II : PHOTOS WHILE AT WORK

