INTERNSHIP REPORT

Submitted in the partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

CSE-IOT

Submitted by:

Rishabh Anand

19BCS4525

AT HIGH RADIUS



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

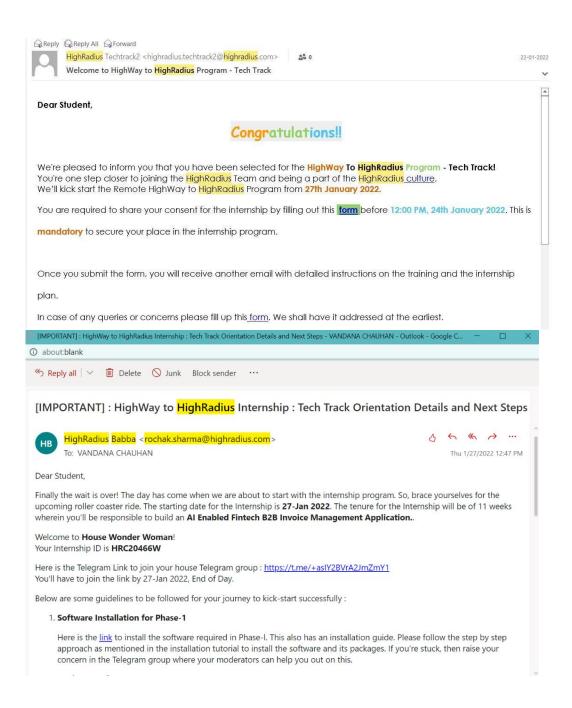
APEX INSTITUE OF TECHNOLOGY

CHANDIGARH UNIVERSITY, GHARUAN, MOHALI - 140413, PUNJAB

January - April 2022

1.Offer Letter with Date of Joining:

There comes a congratulations mail from HR department of High radius regarding the selection and date of joining, no any pdf of offer letter had come so I am attaching the screenshots of the same.



2. Last Salary Slip/ Bank Document:

This was an unpaid internship. We did'nt received any salary during this internship.

3. Copy of NOC from College:

No NOC is provided by the college to any of the student since the internship is online and in the evening time only after office hours.

4. Executive Summary:

a. About Company: High Radius offers cloud-based <u>Autonomous Software</u> for the Office of the CFO. More than 700 of the world's leading companies have transformed their order to cash, treasury and record to report processes with High Radius. Our customers include 3M, Unilever, Anheuser-Busch InBev, Sanofi, Kellogg Company, Danone, Hershey's and many more.

Autonomous Software is data-driven software that continuously morphs its behaviour to the ever-changing underlying domain transactional data. It brings modern digital transformation capabilities like Artificial Intelligence, Robotic Process Automation, Natural Language Processing and Connected Workspaces as out-of-the-box features for the finance & accounting domain.

Finance business stakeholders have been led to believe that they have only two choices: pick an application software vendor that digitizes a paper or Excel-based process to an electronic system of record, or, choose a middleware platform for AI or RPA to build and maintain in-house, domain-specific capabilities. In contrast, HighRadius Autonomous Software combines the best of both worlds to deliver measurable business outcomes such as DSO reduction, working capital optimization, bad-debt reduction, reduce month close timelines and improve productivity in under six months.

b. Project Brief:

The B2B world operates differently from the B2C or C2C world. Businesses work with other businesses on credit. When a buyer business orders goods from the seller business, the seller business issues an invoice for the same. This invoice for the goods contains various information like the details of the goods purchased and when it should be paid. This is known in accounting terminology as "Accounts Receivable".

Seller business interacts with various businesses and sells goods to all of them at various times. Hence, the seller business needs to keep track of the total amount it owes from all the buyers. This involves keeping track of all invoices from all the buyers. Each invoice will have various important fields like a payment due date, invoice date, invoice amount, baseline date etc.

The buyer business needs to clear its amount due before the due date. However, in real-world scenarios, the invoices are not always cleared ie. paid in full amount by the due date. The date on which a customer clears the payment for an invoice is called the payment date.

The evaluation was divided into 2 phases:

1- Machine Learning

The objective of the ML Application Development internship project is:

- View the invoice data from various buyers.
- See various fields/attributes of the invoice(s) from a particular buyer.

Perform Data Pre-processing on the invoice data.

- Get account-level analytics to easily visualize and interpret data- EDA and Feature Engineering.
- Get a prediction of when the invoice is going to get paid.

2- Web application

The objective of the Web Application Development internship project is:

- To build a Full-stack Invoice Management Application using Reacts, JDBC, Java, Servlets.
- Visualize Data in the form of grids.
- Perform Searching operations on the invoices.
- Add & Edit data in the editable fields of the grid.
- Delete data of selected rows in predefined templates.

c. Methodology/ Tools Deployed:

- Eclipse IDE
- VS Code
- React
- Node JS
- HTML
- Basic JavaScript Knowledge
- CSS
- JAVA
- Servlets
- JDBC

d. Key finding of the report:

This was the unpaid internship in which I got evaluated on the basis of my project submissions and my score in quizzes and about the project I have already written above. So there was not any particular task related to some research in which I had to find something but during my period of internship I learnt various thing, got to know about different technologies, and how things work in industry.

e. Benefits to the company of findings:

During my internship I created a full stack web project which was performing the following operations:

- Visualize Data in the form of grids.
- Perform Searching operations on the invoices.
- Add & Edit data in the editable fields of the grid.
- Delete data of selected rows in predefined templates.

These were the benefits of my project.

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Orientation 1 hours						
Observing1						
Meetings (e.g. staffing, working with the team, etc)1.5						
Lectures, Seminars, Conferences 15-20 hours						
Assessment 30-35 hours						
Planning (activity analysis, goals and objectives, etc) 10 hours						
Studying/Researching 90 hours						
B. Implementation (in <i>hours</i> which so ever is applicable.						
Otherwise mention Not Applicable):						
a. Leadership NA						
b. Counselling NA						
c. Supervision NA						
d. Evaluation 2 hours						
e. Documentation 4 hours						
f. Discharge/Transition Plans NA						
g. Other (Please specify) NA						
C. Total clock hours during this report period 130 hours						

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7. Introduction to Company and Industry:

Company:

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Finance business stakeholders have been led to believe that they have only two choices: pick an application software vendor that digitizes a paper or Excel-based process to an electronic system of record, or, choose a middleware platform for AI or RPA to build and maintain in-house, domain-specific capabilities. In contrast, High Radius Autonomous Software combines the best of both worlds to deliver measurable business outcomes such as DSO reduction, working capital optimization, bad-debt reduction, reduce month close timelines and improve productivity in under six months.

Our products provide value to a wide range of customers and are especially relevant to industries like consumer products, manufacturing, distribution, energy, and others that sell products or provide a service to other businesses.

Our customers range from some of the largest global corporations including more than 200+ Global 2000 companies as well as mid-size enterprises that don't have the IT resources to consolidate on an ERP platform but still want to automate and streamline their receivables and treasury processes.

Efficiency and productivity enhancements are central to the value High Radius provides to our customers. Regardless of what ERP, Accounts Receivable or Treasury Management system you are using, our products automate manually-intensive tasks, streamline communication, and allow standardization of processes to drive best practices into your receivables and treasury processes.

We empower our customers to be able to work more accurately and efficiently, forecast and manage cash, get paid faster, and improve key metrics like Days Sales Outstanding (DSO) and improve working capital availability.

Industry:

Software as a service (or SaaS) is a way of delivering applications over the Internet—as a service. Instead of installing and maintaining software, you simply access it via the Internet, freeing yourself from complex software and hardware management.

SaaS applications are sometimes called Web-based software, on-demand software, or hosted software. Whatever the name, SaaS applications run on a SaaS provider's servers. The provider manages access to the application, including security, availability, and performance.

SaaS customers have no hardware or software to buy, install, maintain, or update. Access to applications is easy: You just need an Internet connection

A good way to understand the SaaS model is by thinking of a bank, which protects the privacy of each customer while providing service that is reliable and secure—on a massive scale. A bank's customers all use the same financial systems and technology without worrying about anyone accessing their personal information without authorization.

A "bank" meets the key characteristics of the SaaS model:

Multitenant Architecture

A multitenant architecture, in which all users and applications share a single, common infrastructure and code base that is centrally maintained. Because SaaS vendor clients are all on the same infrastructure and code base, vendors can innovate more quickly and save the valuable development time previously spent on maintaining numerous versions of outdated code.

Easy Customization

The ability for each user to easily customize applications to fit their business processes without affecting the common infrastructure. Because of the way SaaS is architected, these customizations are unique to each company or user and are always preserved through upgrades. That means SaaS providers can make upgrades more often, with less customer risk and much lower adoption cost.

Better Access

Improved access to data from any networked device while making it easier to manage privileges, monitor data use, and ensure everyone sees the same information at the same time.

SaaS Harnesses the Consumer Web

Anyone familiar with Amazon.com or My Yahoo! will be familiar with the Web interface of typical SaaS applications. With the SaaS model, you can customize with point-and-click ease, making the weeks or months it takes to update traditional business software seem hopelessly old fashioned.

SaaS Trends

Organizations are now developing SaaS integration platforms (or SIPs) for building additional SaaS applications. The consulting firm Saugatuck Technology calls this the "third wave" in software adoption: when SaaS moves beyond standalone software functionality to become a platform for mission-critical applications.

8. Introduction to Job Profile:

Designation: Software Developer

• Software developers design computer applications or programs.

The role also covers writing diagnostic programs and designing and writing

code for operating systems and software to ensure efficiency

• Continually update technical knowledge and skills by attending in-house and

external courses, reading manuals and accessing new applications.

Software quality assurance analysts and testers identify problems with

applications or programs and report defects.

Job Location: Work from Home

Key Performance Area: In this internship Basically I have to create a machine

learning model which will predict that when the invoices will get paid, after

creating the model I have to work on a full stack web project which is Invoice

Management System, this was a web application created with the help of REACT

and JAVA.

The tasks I had to perform during ML project were:

• View the invoice data from various buyers.

• See various fields/attributes of the invoice(s) from a particular buyer.

Perform Data Pre-processing on the invoice data.

• Get account-level analytics to easily visualize and interpret data- EDA and

Feature Engineering.

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The tasks I had to perform during Web application were:

- Visualize Data in the form of grids.
- Perform Searching operations on the invoices.
- Add & Edit data in the editable fields of the grid.
- Delete data of selected rows in predefined templates.

Internship Timelines: January to April 2022 (Evening 6 PM-9:00 PM) Monday to Friday

Job Description: On daily basis (Monday- Friday) from 6 PM, I needed to attend master class in which they taught us various concepts which were needed to create the project, Theses masterclasses were necessary to attend because there were some concepts which I had to apply in my project but I did not know about them. Then after 1 hour of masterclass there was break which is called the self-learning session in which I Had to revise and again visit the concepts which were learned during the masterclass and then a 30 minute scrum call in which we had to update about our progress and also can asks doubts.

Alongside of attending the masterclasses and creating the project I also had to give quizzes because they were also the part of evaluation, after completing a certain section of topics an online quiz organized by Highradius team itself.

9. Key Learning from Internship:

- a. This internship taught me how to start working with a completely different project with no prior knowledge.
- b. I learned about different technology.
- c. How the cycle of project work in industry and how to track the progress of your work everyday.
- d. Gain a practical experience which I think will be helpful for me in the future if I look for another company to join.
- e. Holistic and long-term goal oriented thinking and then acting upon to do stuffs is most important.

These were some important lessons which I learnt from this training.

10. Internship/Project Discussion:

Brief Objectives of the Project:

The objective of the was to create the ML model to predict when the invoice going to get paid and then to create a web project name Invoice Management System which was a full stack project.

1- Machine Learning

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How the Objectives were achieved:

The objectives were achieved by learning about the skills which I needed to made my project like about Machine Learning, what is model and how does it work, the pipeline to follow to create a model and in the same way about different technologies too which are REACT, backend in Java, How to connect both front end and backend and then alongside work on the project.

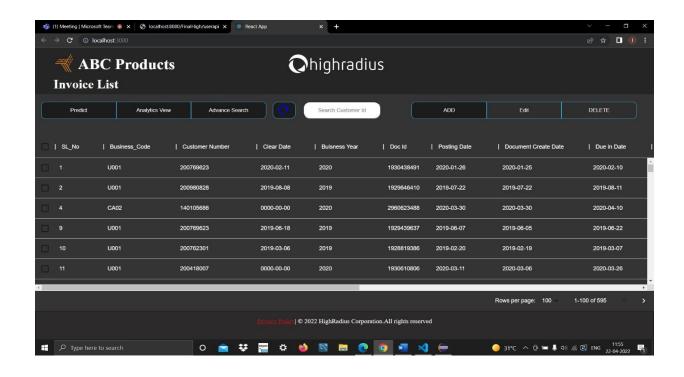
First I completed my ML model which was like first objective and then created the web project.

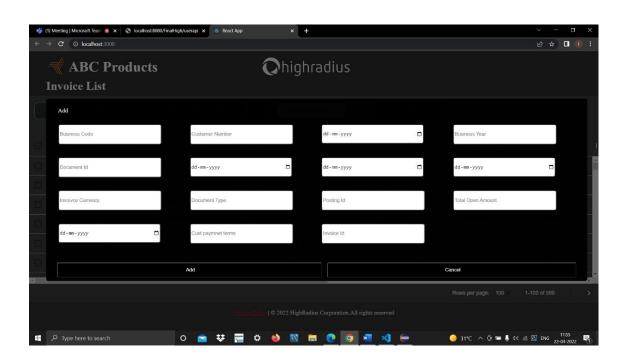
Skills Learned:

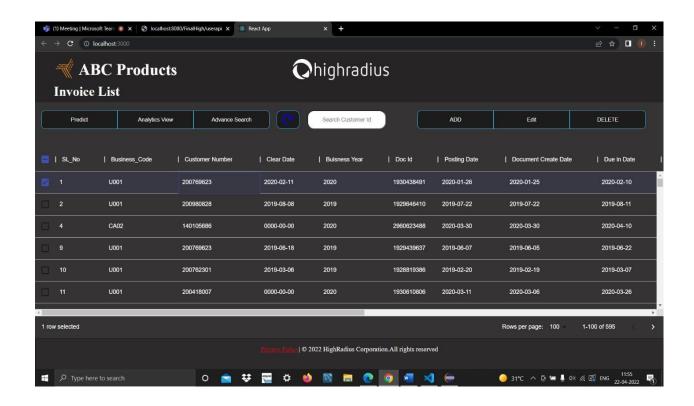
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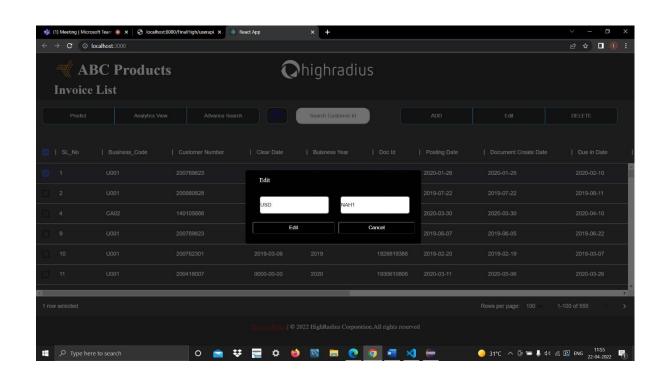
Result:

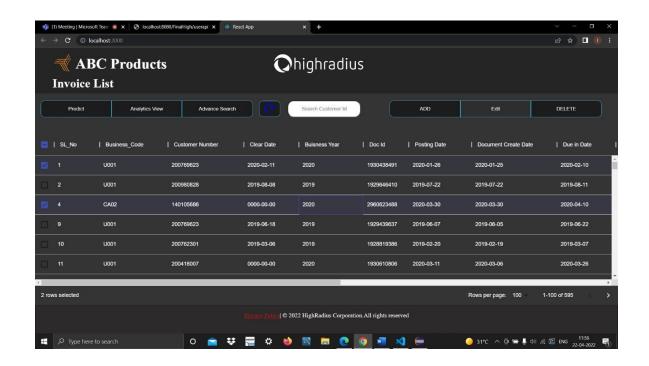
Learning about technologies like REACT and Machine Learning, and get to know a little about how work happen in industry and achieved the objectives which I had to during my both phase of projects.

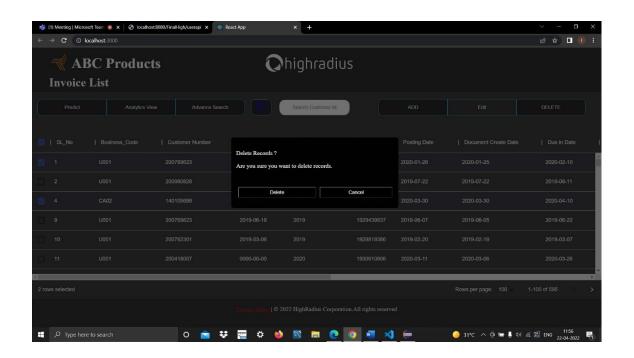


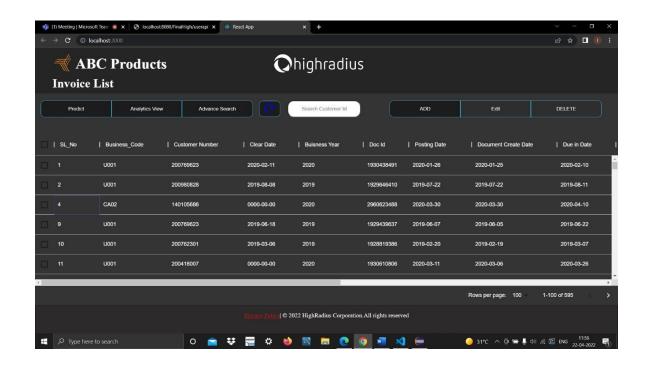


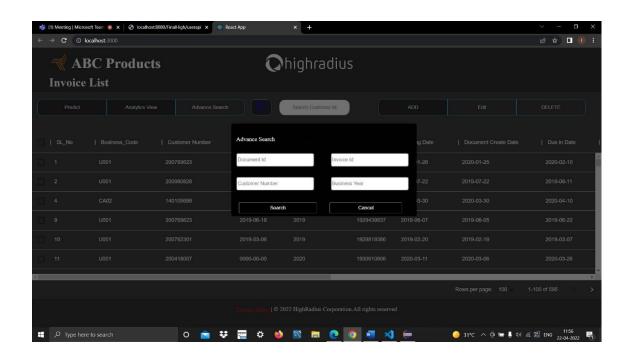


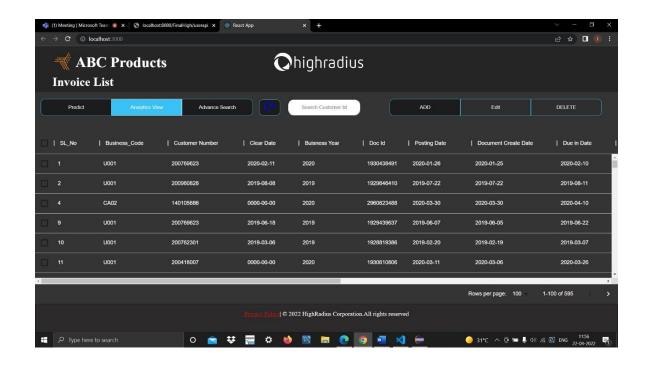


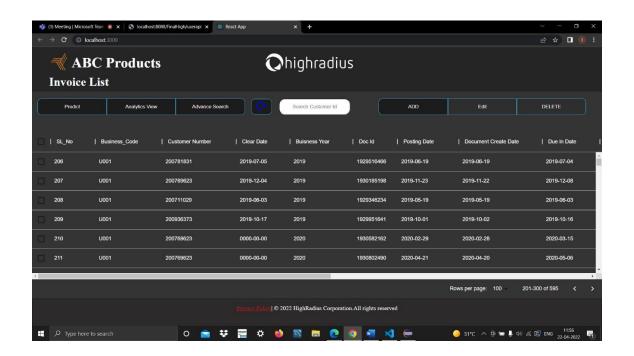


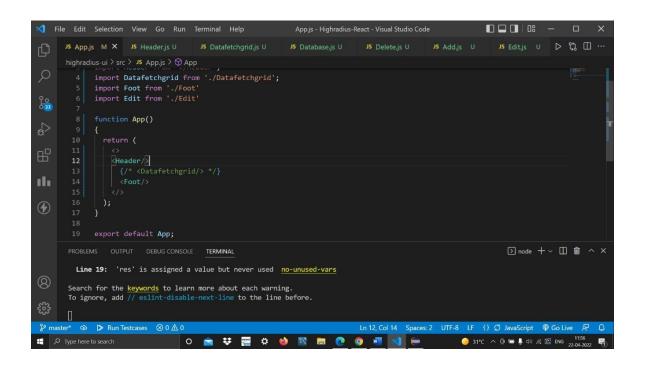


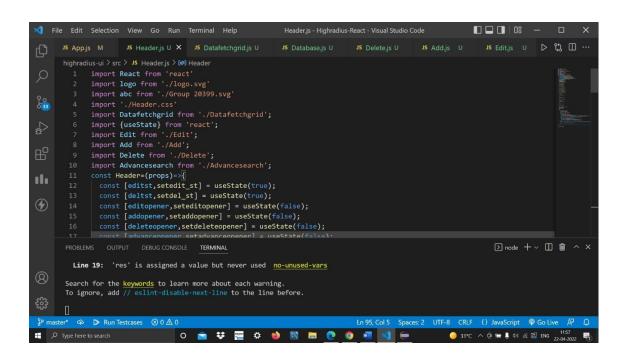


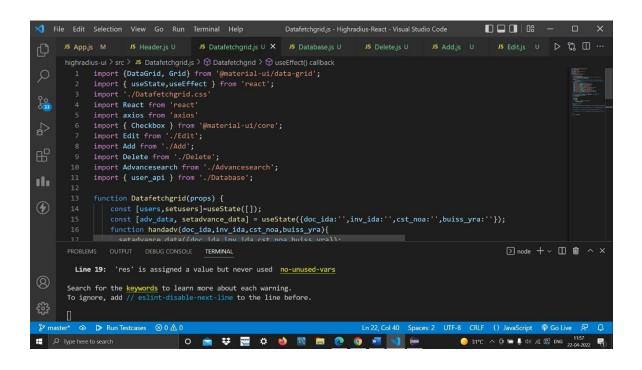


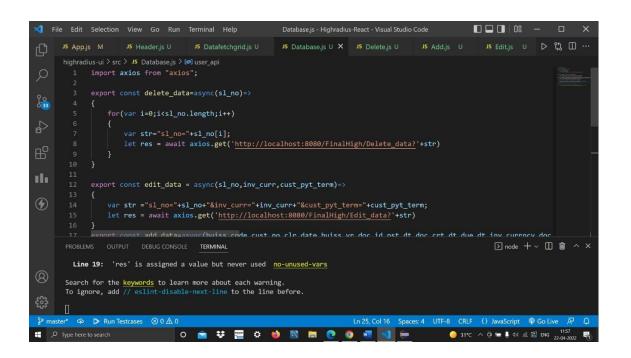


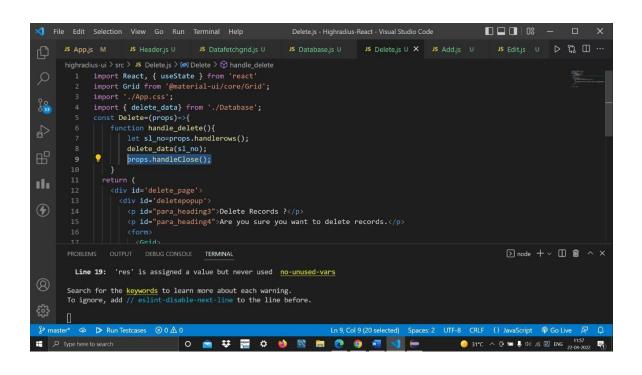


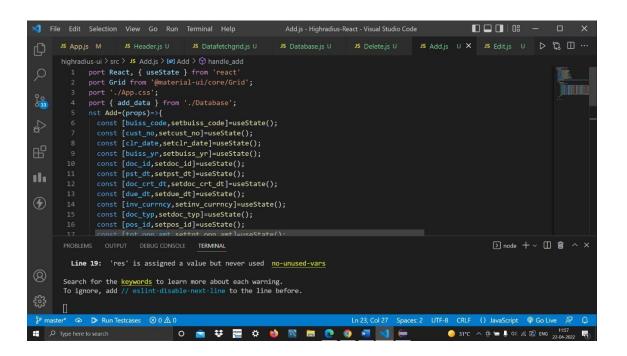


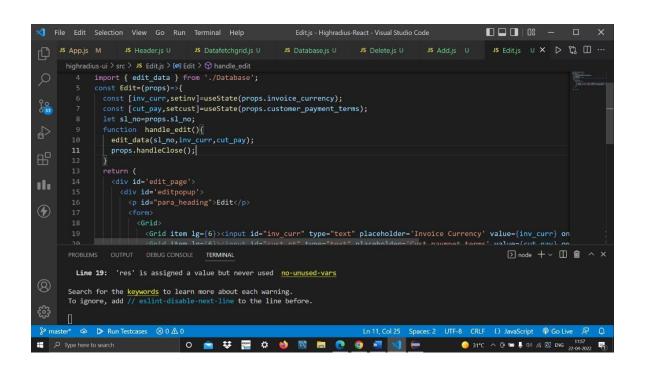


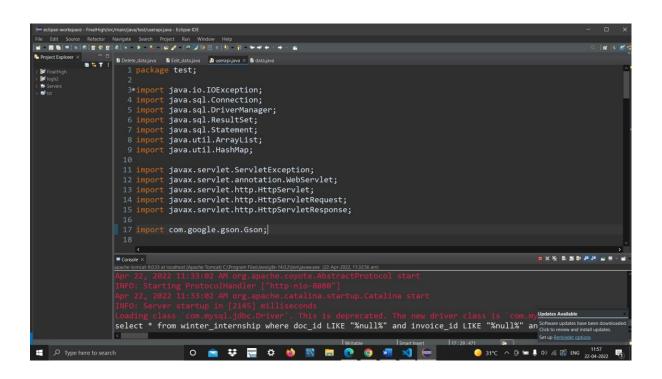


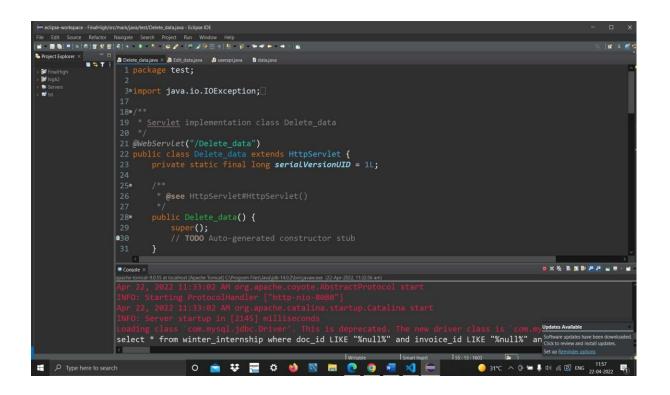


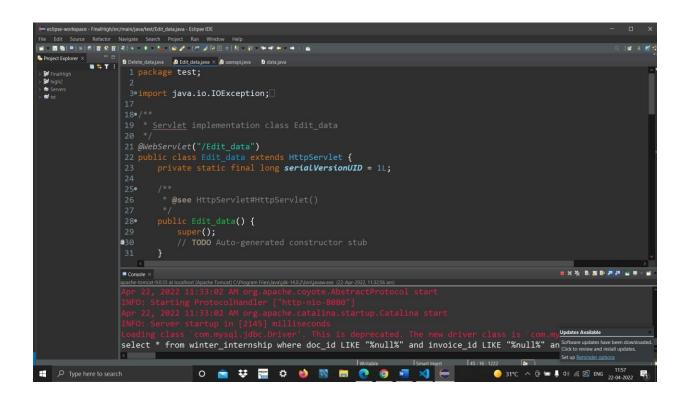














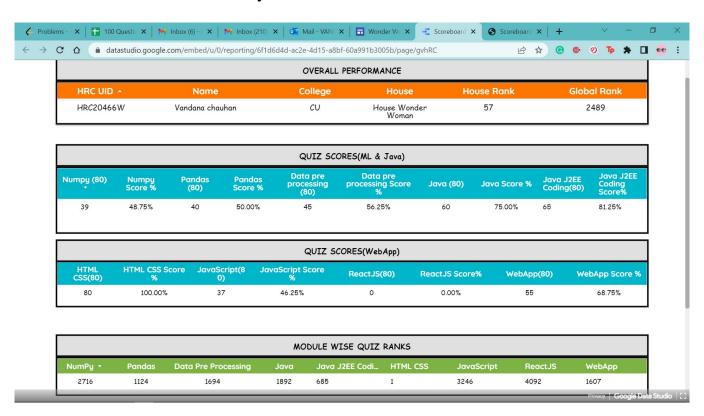


Challenges Faced:

- a. First need to learn about different technologies which are needed during project.
- b. Managing time along with college studies, because need to learn and then make a project on new thing was time consuming.

11. Conclusion:

These are the screen shots of my scorecard



12. References:

https://www.highradius.com/

https://www.youtube.com/c/CampusX-official

https://www.youtube.com/watch?v=ZftI2fEz0Fw&list=PLKnIA16_Rmvbr7zKYQuBfsVkjoLcJgxHH

https://www.youtube.com/user/krishnaik06

https://www.youtube.com/watch?v=3OrEsC-QjUA&t=190s