Internship Report

On

“Web & App Development

@

The Sparks Foundation ~ Singapore”

CONTENTS

Certificate Of Selection

THE SPARKS FOUNDATION

THIS IS PRESENTED TO

RISHAV PANDEY

for successful selection as an intern at The Sparks Foundation for function Mobile App Development.

PRANAV DUBEY
DIRECTOR

26-APR-2021
DATE

CODE : D888S9M5Y5
Verify at:
https://truecertificates.com/verification

Certificate Of Internship Completion

Recommendation Letter from the Managing Director of TSF, Singapore for outstanding performance in GRIP.

THE SPARKS FOUNDATION

INSPIRE, INNOVATE, INTEGRATE

TO WHOM IT MAY CONCERN

This is to certify that Rishav Pandey has successfully completed the Graduate Rotational Internship Program at The Sparks Foundation for a duration of one month from May 2021 to Jun 2021 as a Tech Intern.

Rishav Pandey did an excellent job in this position and was an asset to our organization during his internship tenure. He has excellent analytical skills and he was able to learn new skills and adapt to new technologies in a very short span of time, thus being productive quickly.

Rishav Pandey was always willing to offer his assistance and had excellent rapport with his team members. He would be an asset to any employer and I recommended him for any endeavor he chooses to pursue.

REGARDS,

PRANAV DUBEY

MANAGING DIRECTOR

Certificate Number: A3LDKKEWMN

Verification at:
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THESPARKSFOUNDATION.IN

GLOBAL:
THESPARKSFOUNDATION.INFO

The Sparks Foundation

Sparks Foundation is a Singapore based IT company. It runs a Graduate Rotational Internship Programme every year. In this internship programme they hire STEM students for technical tasks.

In the month of May'21, I got selected to work as a **Web & App Development Intern** for one month. Tasks which I completed during my entire tenure are summarized below:

Task: 1

Payment Gateway Integration

- Create a simple website where payment gateway is integrated.
- There will be a simple donate button on homepage. On clicking the donate button, the user will land on the payment page where user can select the amount to be paid and the payment type, e.g. credit card, Paypal, etc.
- Once the payment is done and invoice will be generated and email will be sent to the user for the payment received. The invoice will contain the amount.
- On any page / email, only basic information is needed.
- Create your own temporary / sandbox / testing accounts with 3rd party for integrations.
- Host the website at 000webhost, github.io, heroku app or any other free hosting provider. Check in code in gitlab.

Task: 2

Social Media Integration

- Create a mobile app, where user can login through at least two social media from such as Facebook and Google.
- After login, display all the details (e.g. Name, profile photo, email, etc.) on the second page.
- Take help of online tutorials and You tube videos.
- No backend / server-side programming required.
- Very good-looking UI and responsive UI, which should work for mobiles as well as tablets.
- Clean code is a must.
- Upload video demo of your application on you tube and submit the url.

Task: 3

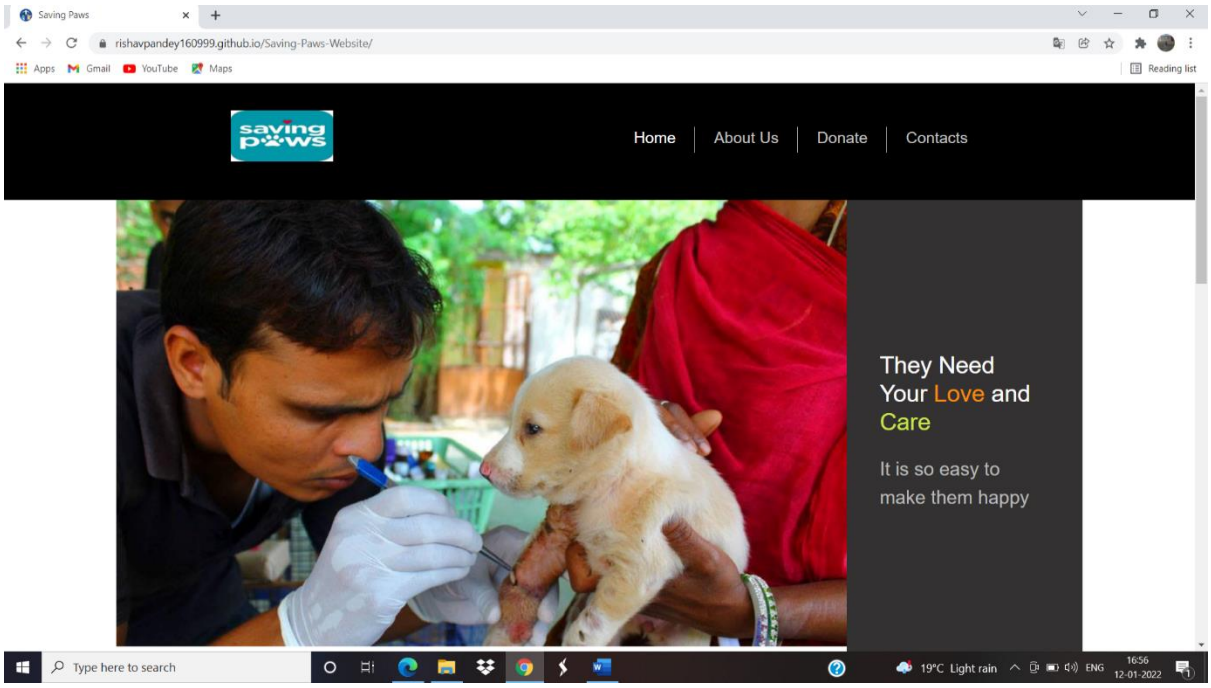
CI/CD: Cloud Computing

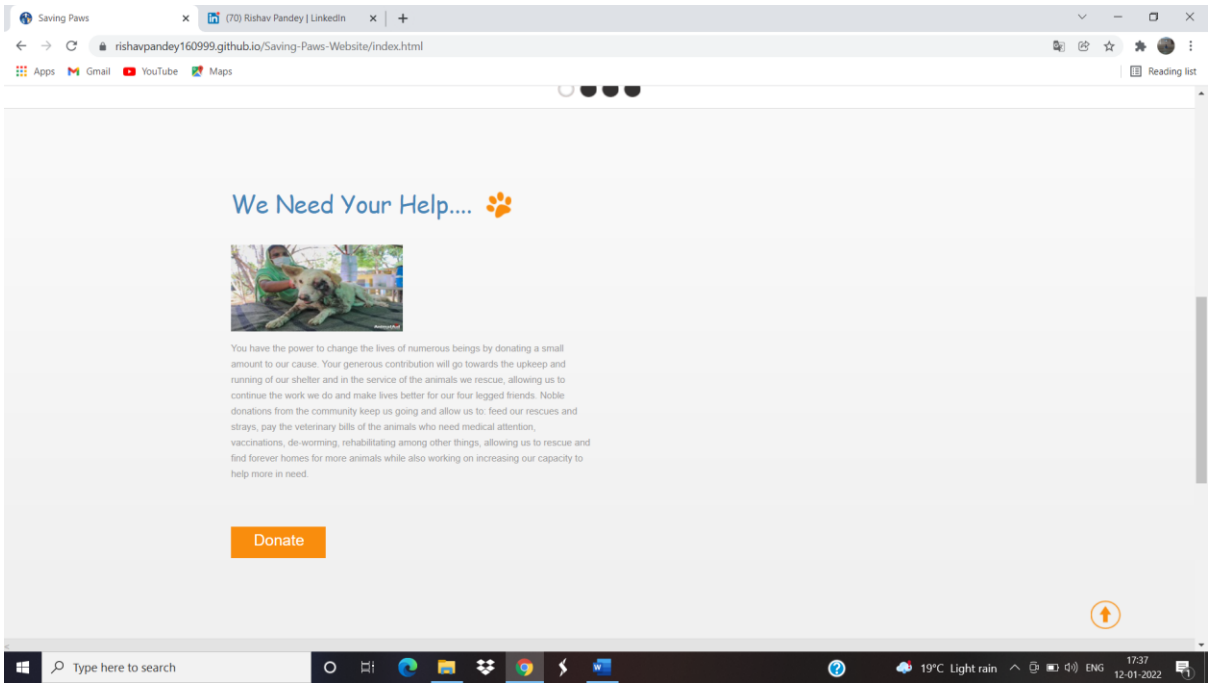
- Read up about AWS or Azure.
- Write up about the steps of setup and essentials of AWS EC2 or Azure VM (one page step by step).
- Create an EC2 or azure VM instance and access it through ssh from your pc over internet.
- In the EC2, deploy and run any application (a website with tomcat/spring boot) or python-based project.
- Use at least one service apart from EC2 or VM, i.e. Database service, or MQ, ML, Mobile or any other services provided by AWS or Azure.
- Submit the URL of the application which is running on EC2.
- Your video should show that you are able to run applications on cloud.

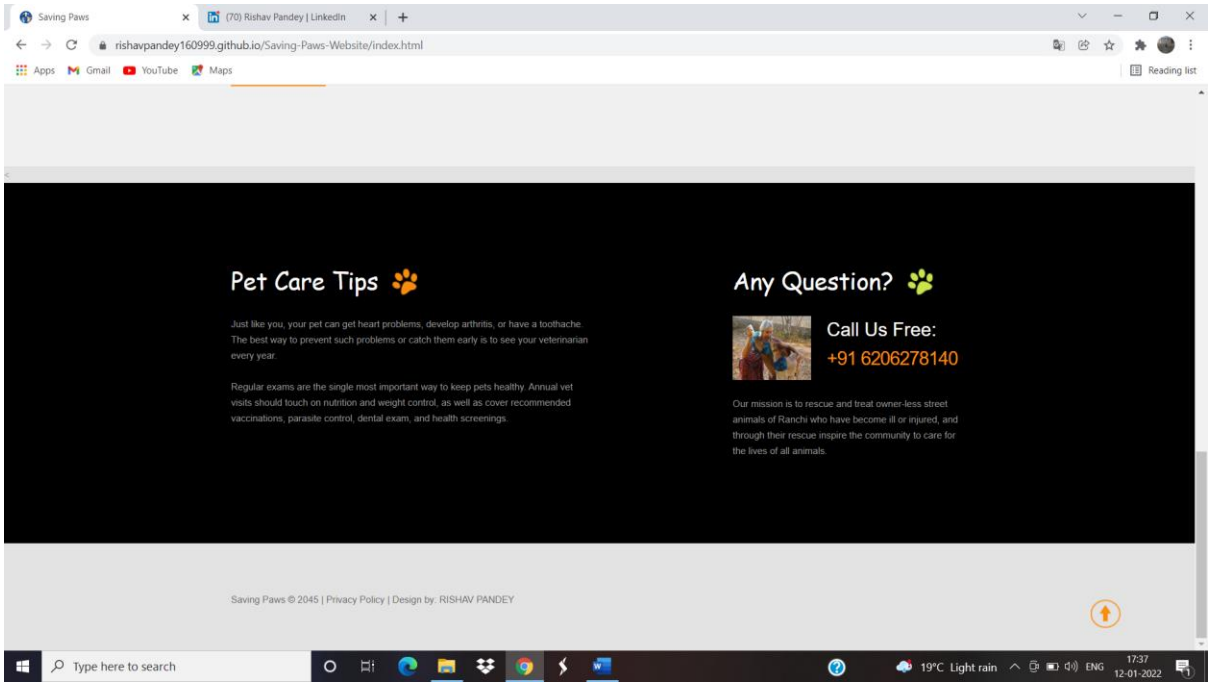
Works Carried Out In Task: 1

Designed an animal donation website named 'Saving Paws' and then integrated a payment gateway page in it. There is a donate button on home page, just by tapping the same user is directed to the payment page. Once the payment is done, an invoice is generated and email is sent to the user for the payment received. The invoice contains the amount.

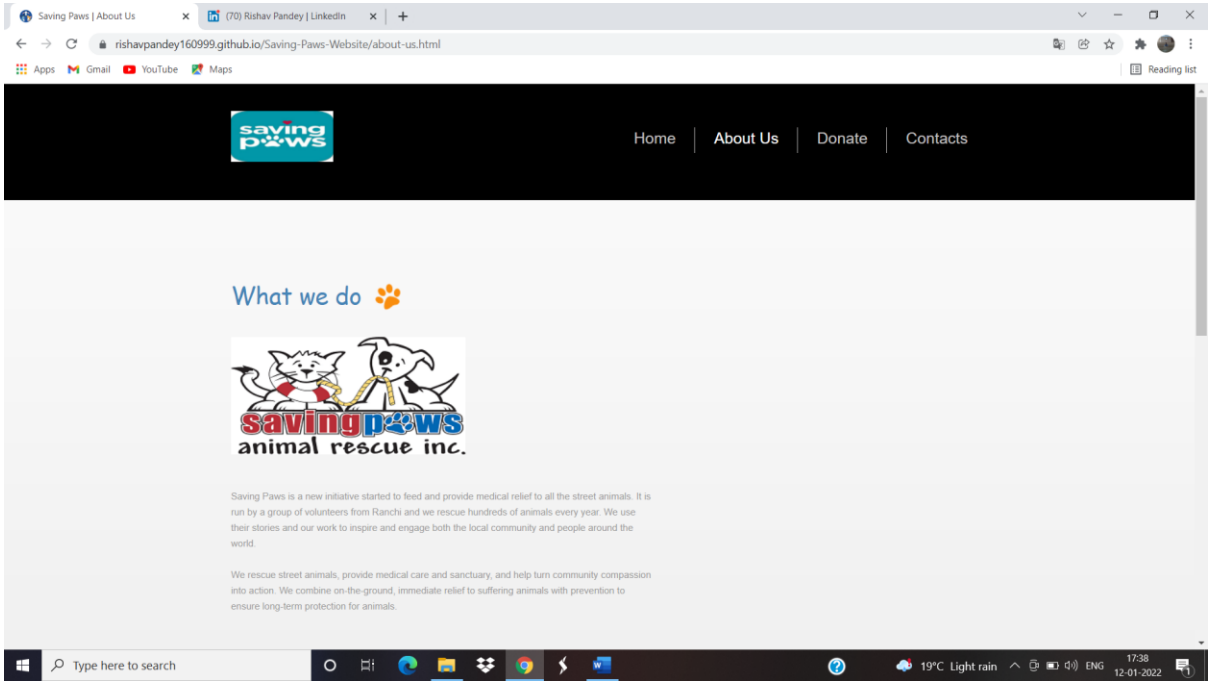
Home Page:



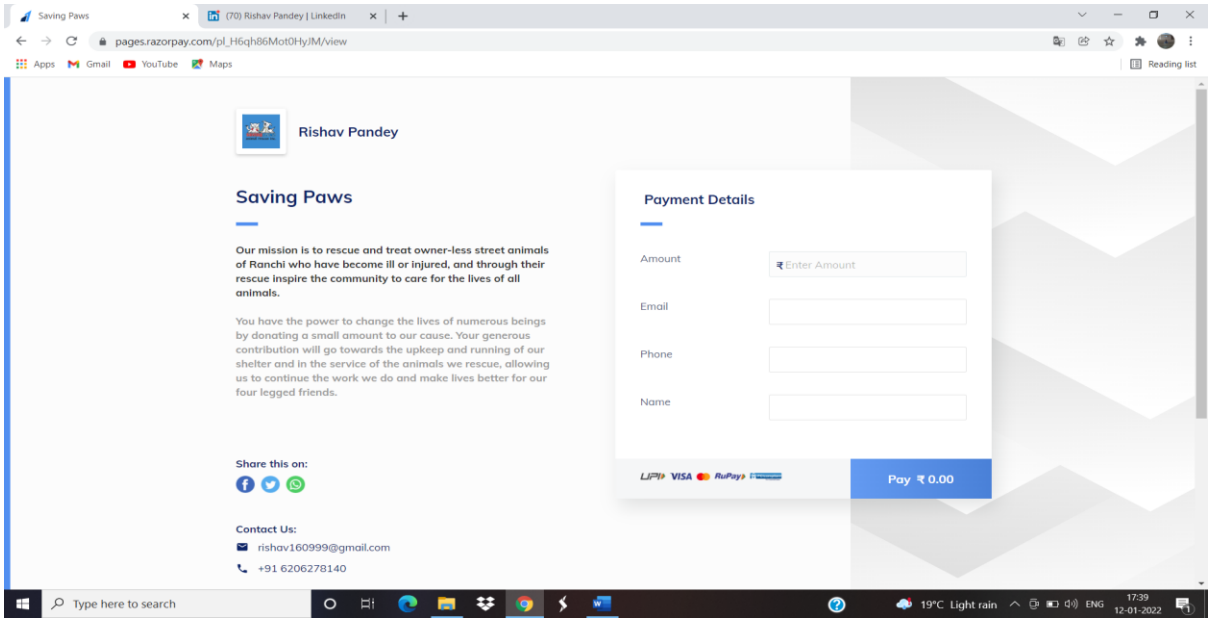




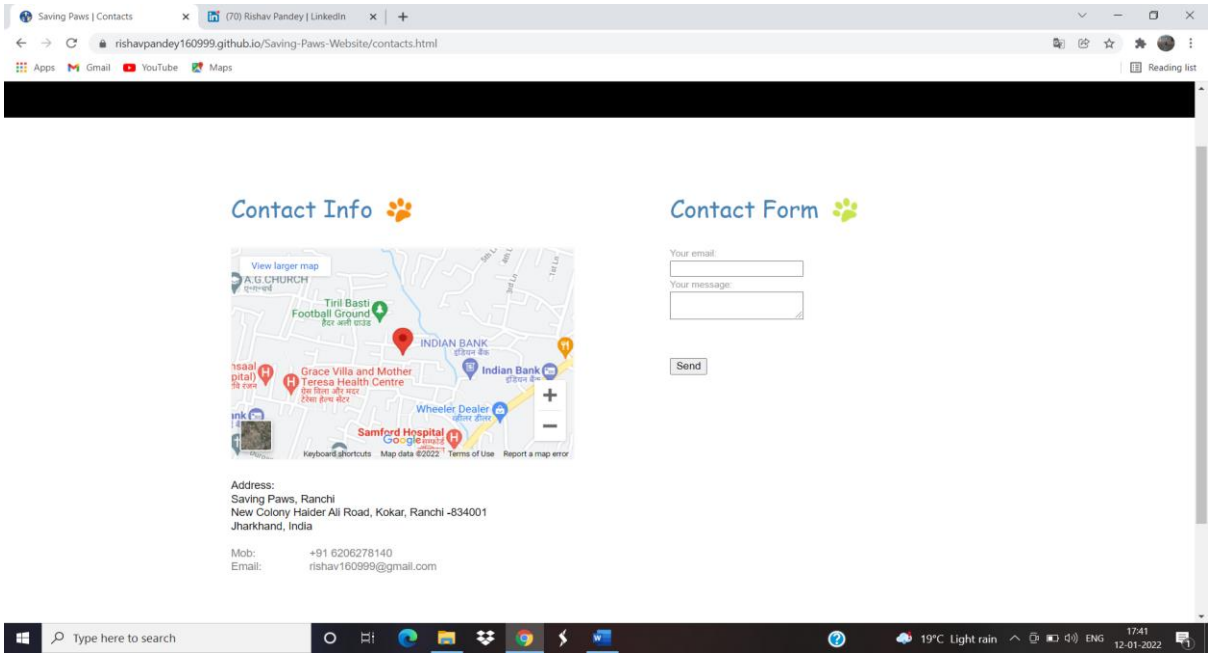
About Us Page:



Donate Page:



Contact Us Page:



[Link of the website]

[GitHub Repo]

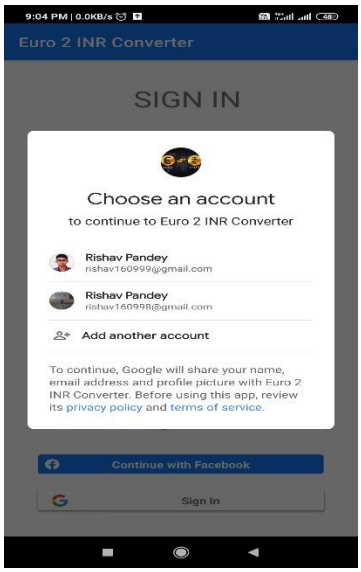
[Presentation]

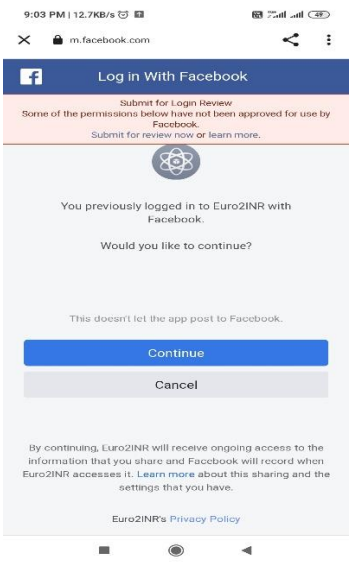
Works Carried Out In Task: 2

Designed an android app named "Euro 2 INR Converter" which converts a given amount in Euro into INR. For creating the same I used JAVA and tool like Android Studio. I've integrated Google and Facebook Sign-in in it, so that a user can sign in by any of the two ways. Once the user is signed in, their name, email, and profile picture is displayed on the next screen. User can further continue to the next interface i.e. "Euro 2 INR Converter" page.

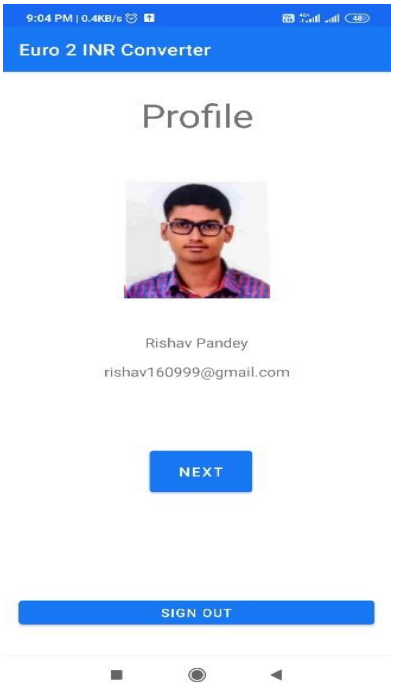
Splash Screen:

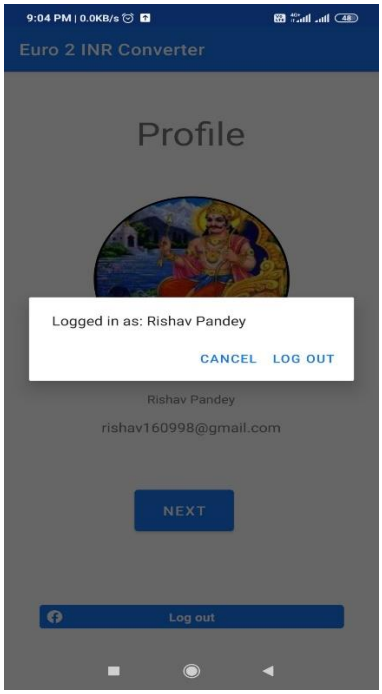
Sign-in Page:



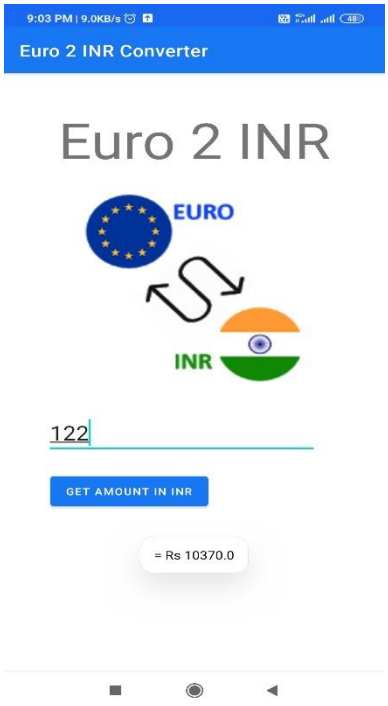


Profile Page:





Euro-2-INR Convertor Page:



[GitHub Repo](#)

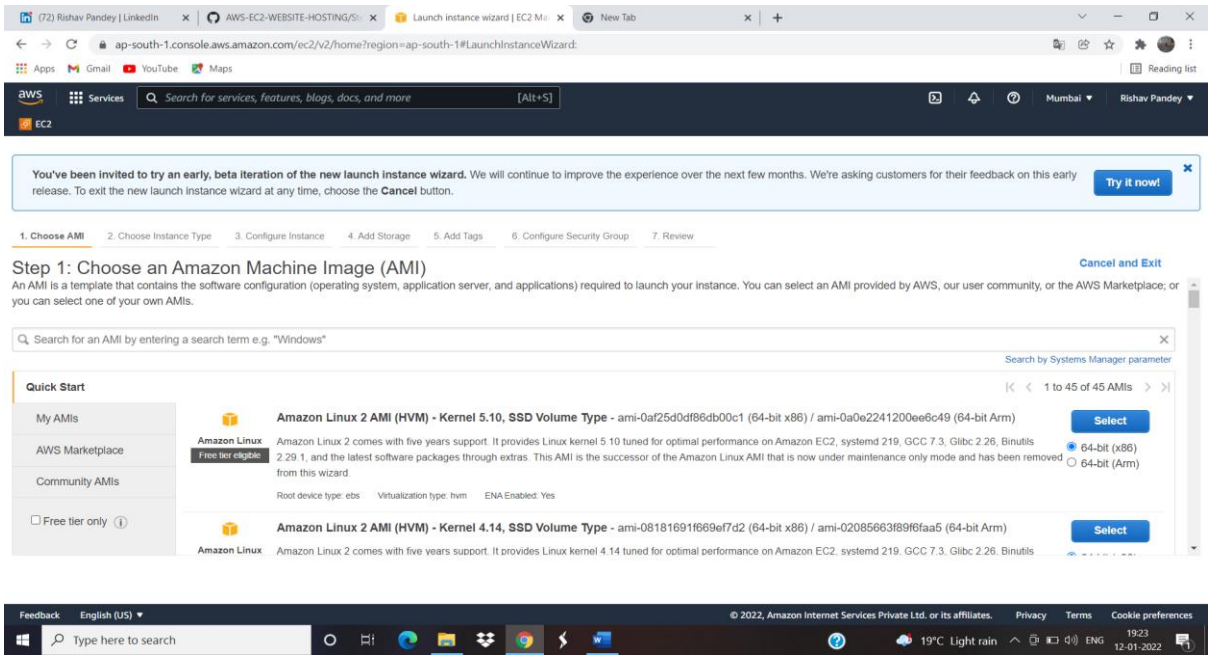
[Presentation](#)

Works Carried Out In Task: 3

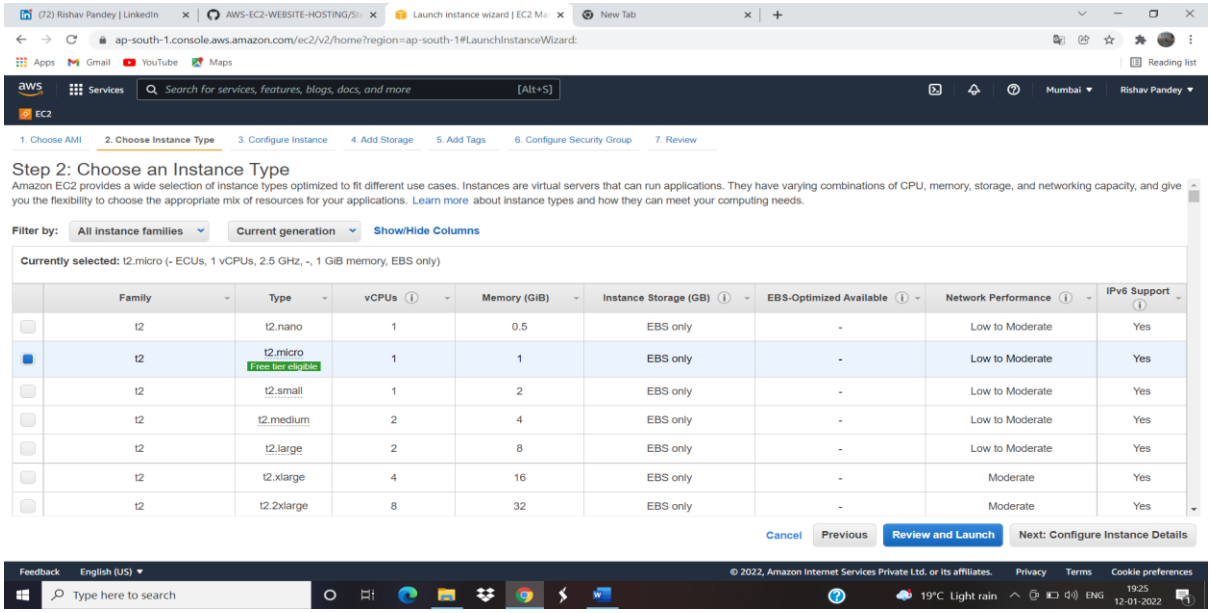
Learnt about all the services offered by an extremely secure cloud service provider Amazon Web Services (AWS) and implemented practically by launching an AWS EC2 Instance. I even used other services of AWS like storage services (AWS S3) and security services (IAM). After launching the instance, I secure shelled into the same and further hosted my portfolio website on that virtual server.

Steps to host a website on AWS EC2 Instance:

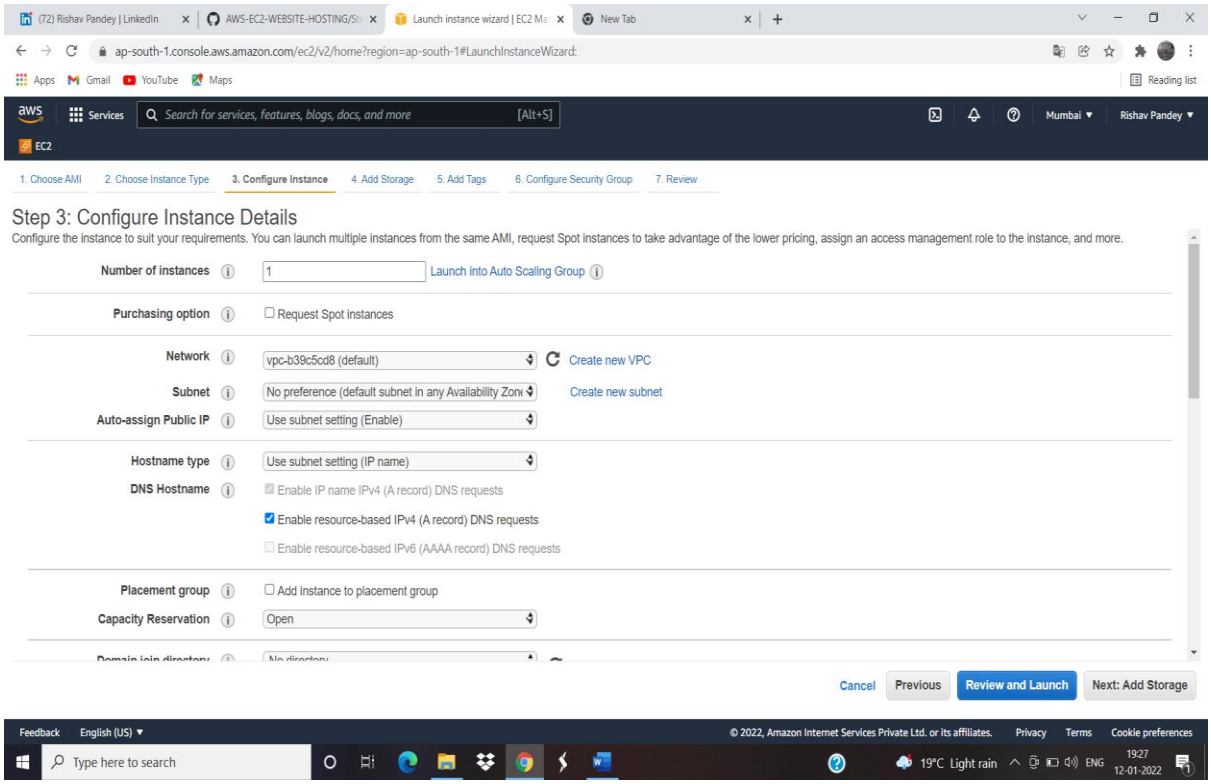
Step 1: Choose an Amazon Machine Image (AMI).



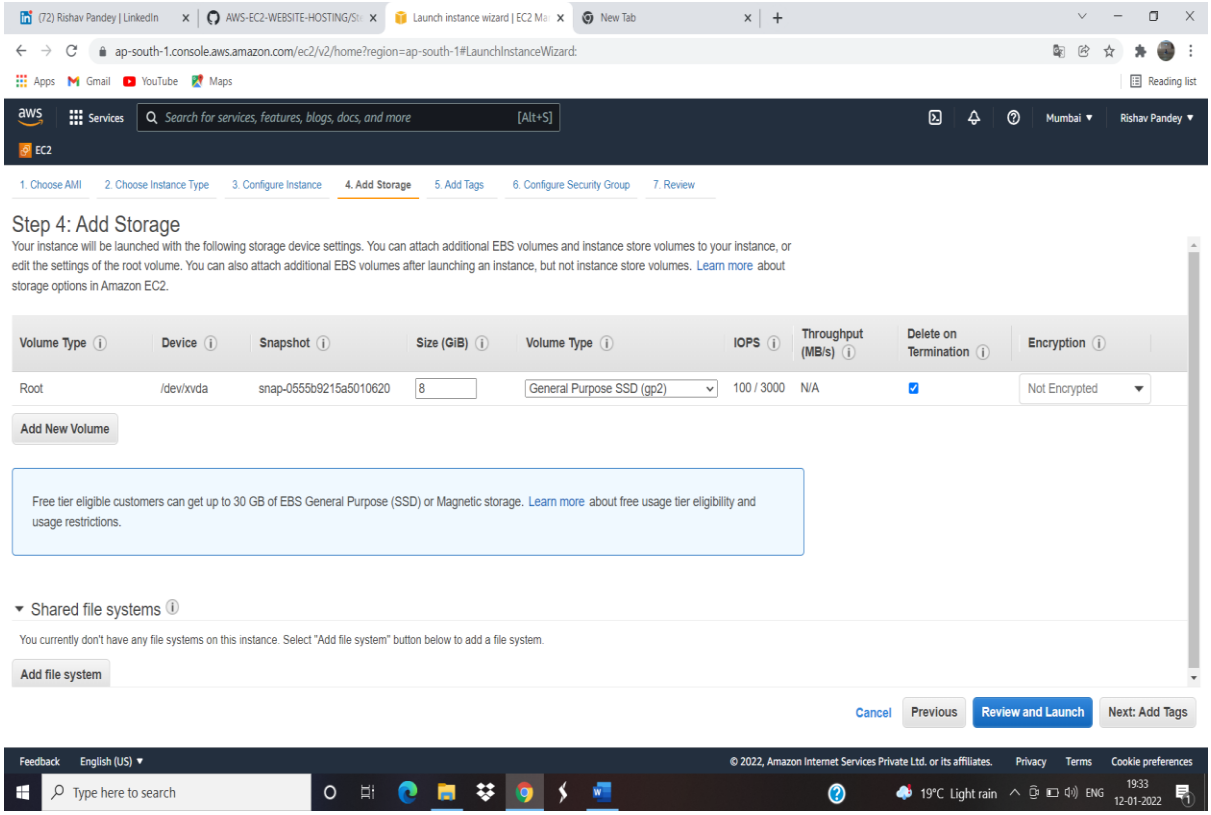
Step 2: Choose an Instance Type.



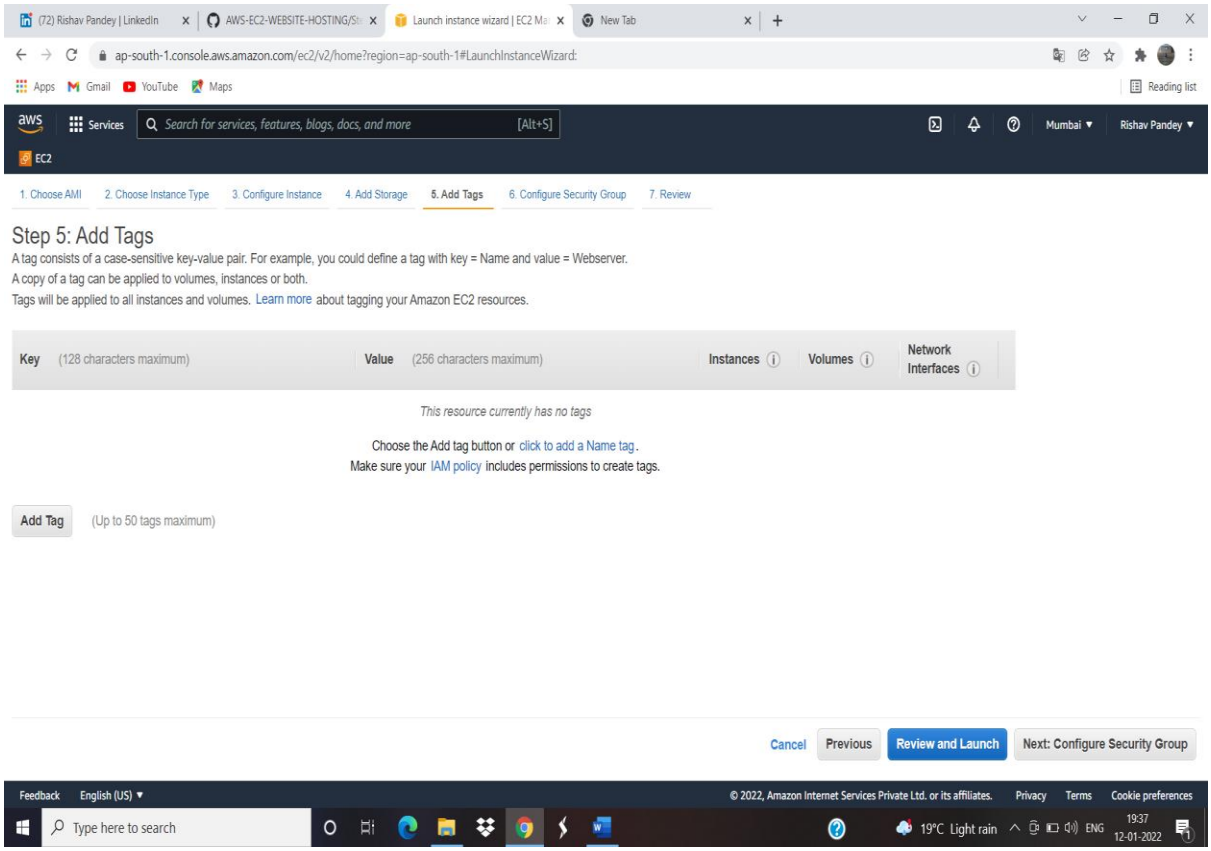
Step 3: Configure Instance Details.



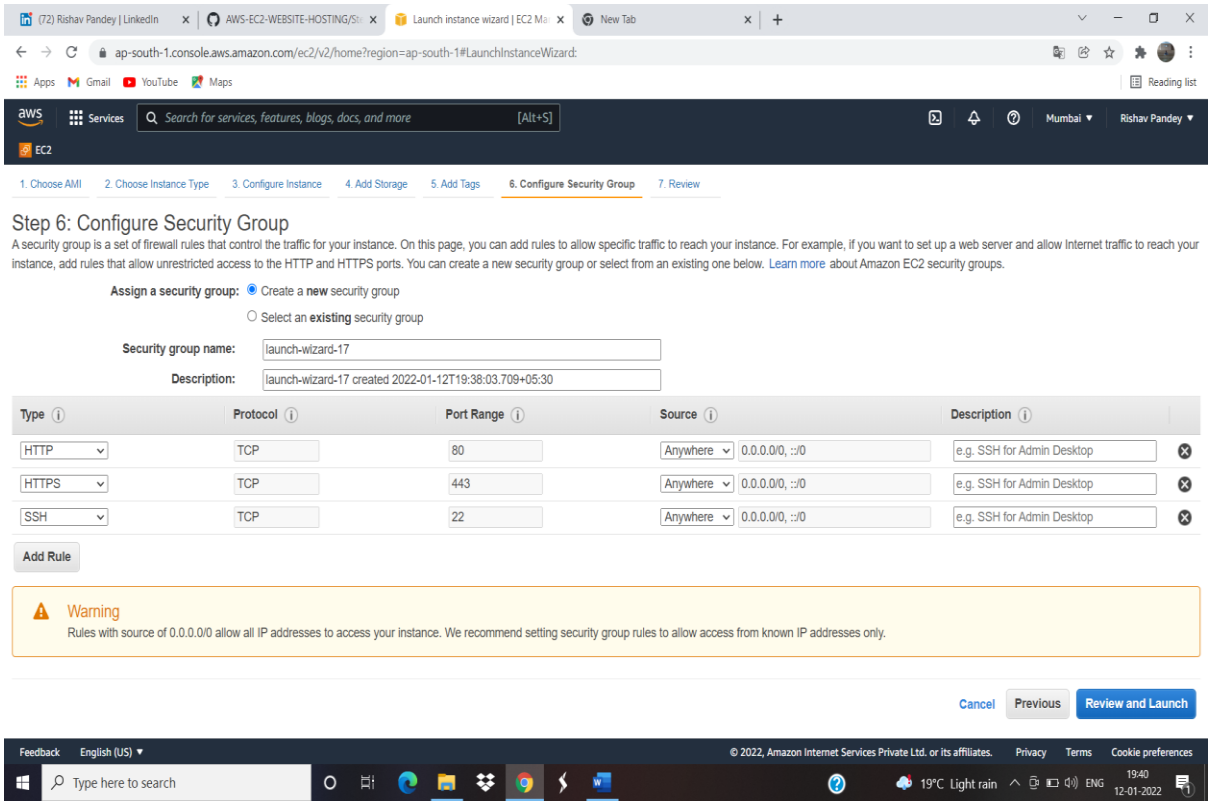
Step 4: Add Storage.



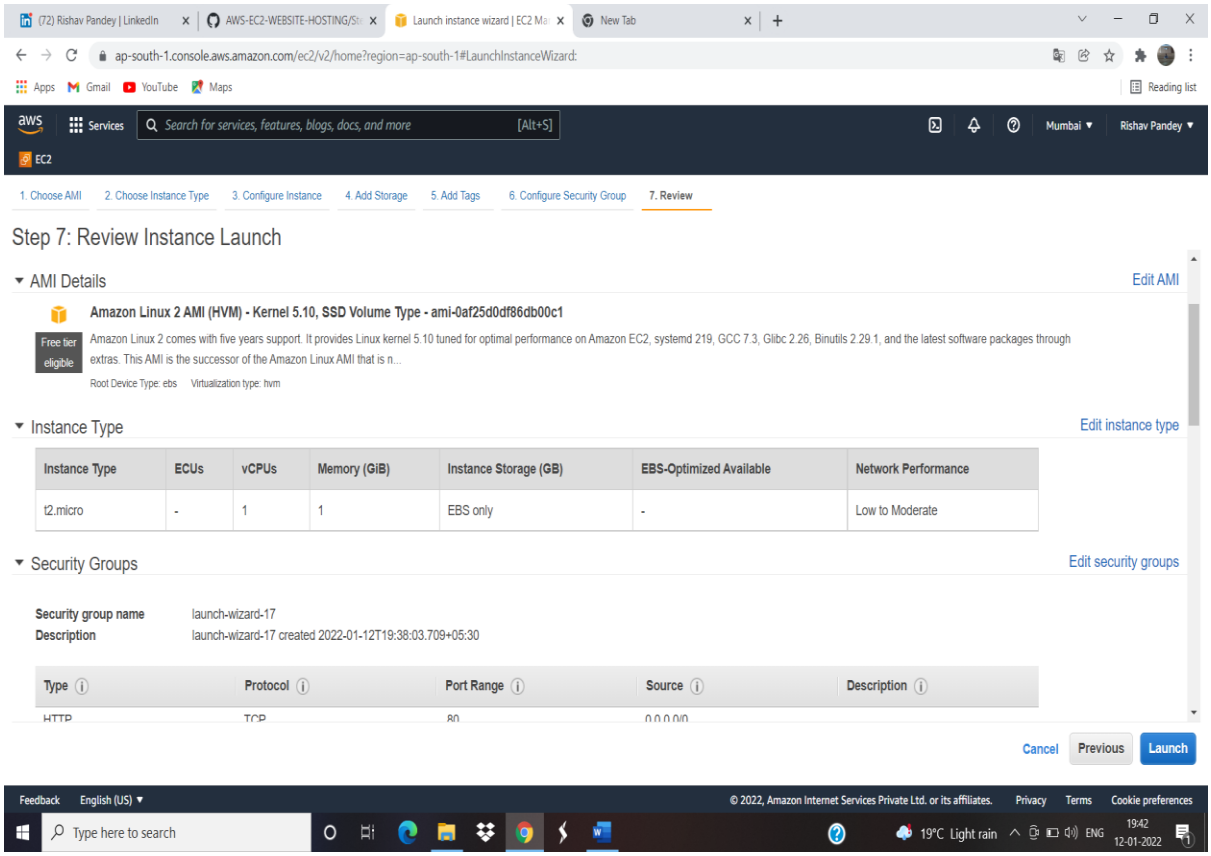
Step 5: Add Tags.



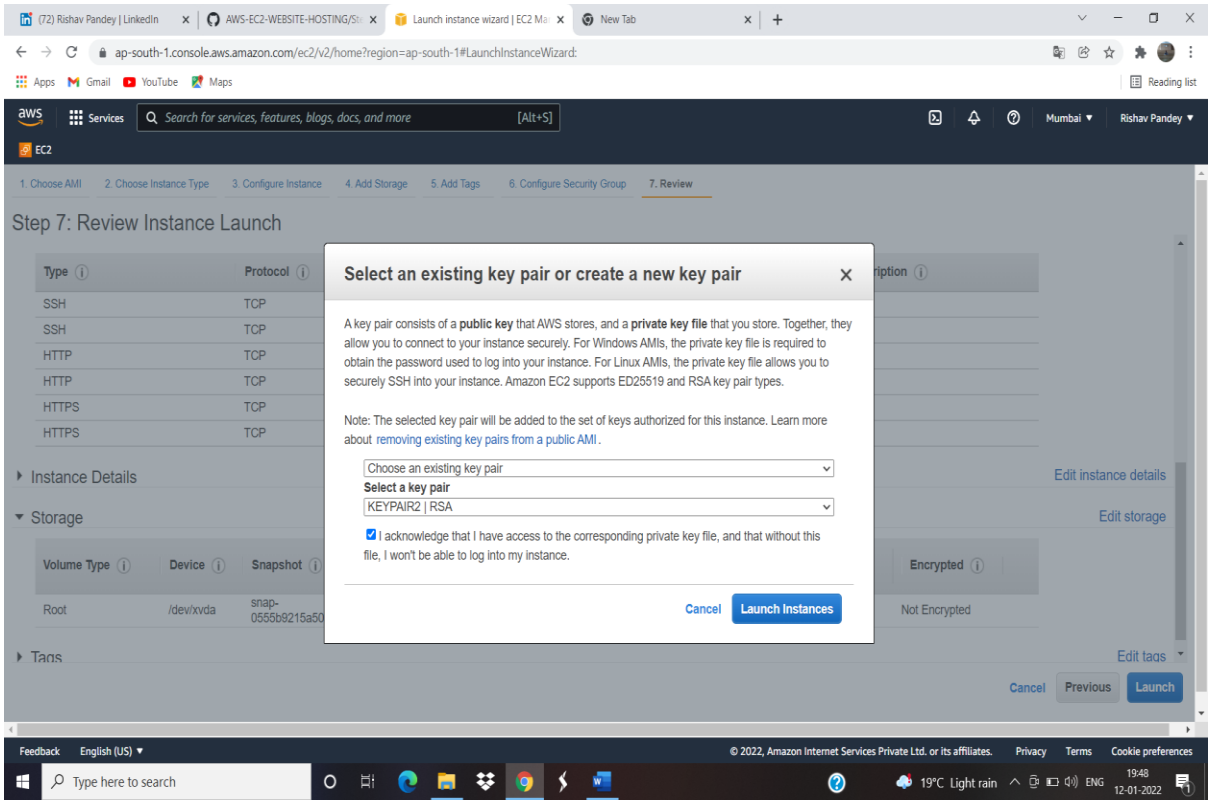
Step 6: Configure Security Group.



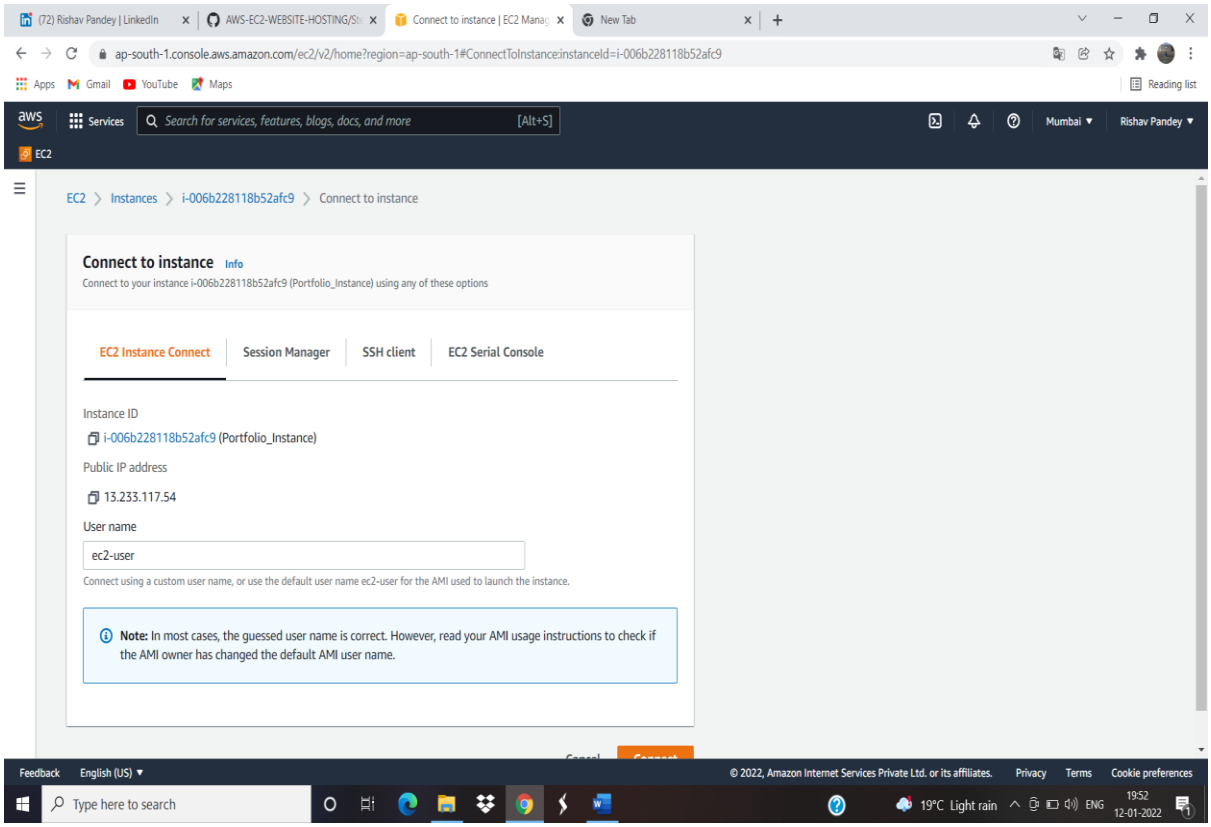
Step 7: Review Instance Launch.

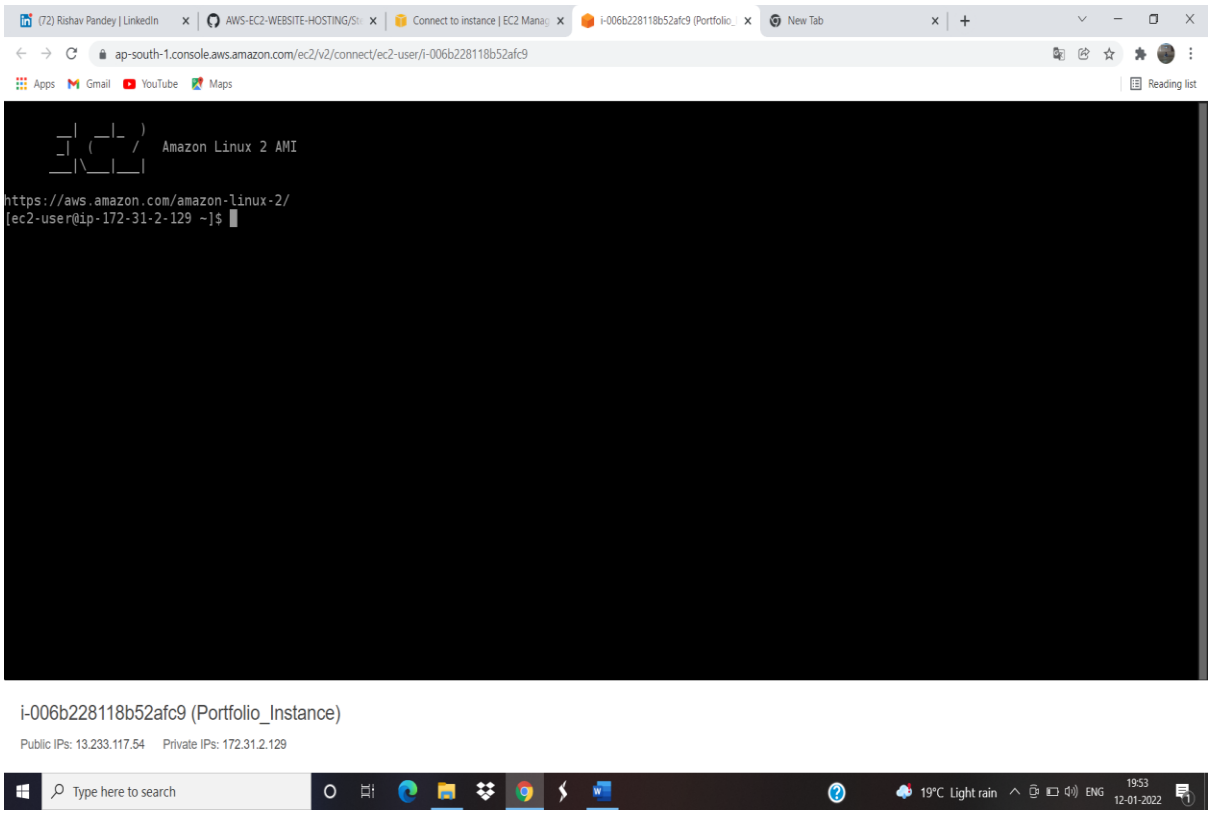


Step 8: Select an existing keypair or create a new key pair.



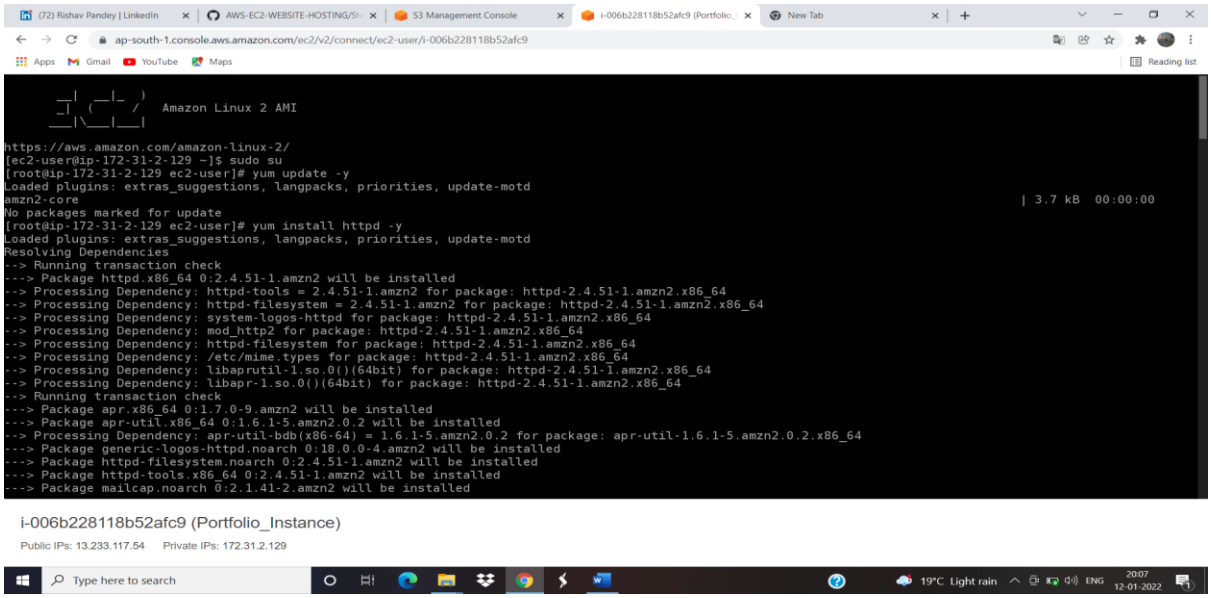
Step 9: Connect to instance.





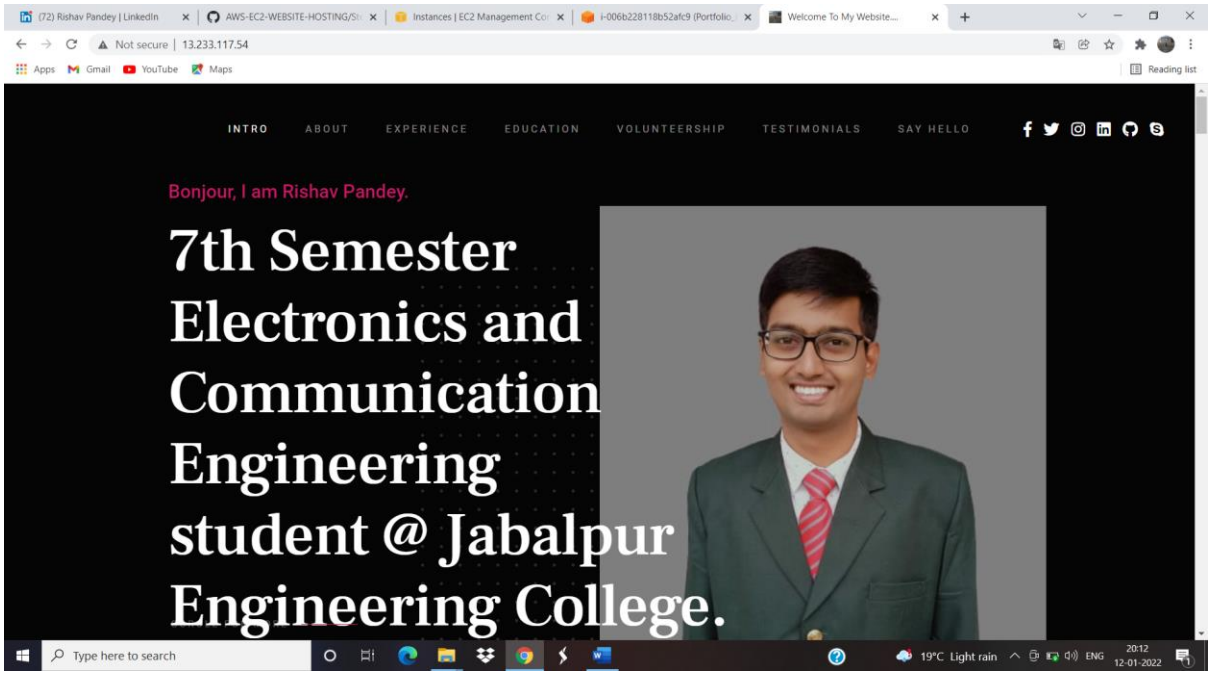
Step 10: Run the below mentioned SSH commands one by one.

sudo su
yum update -y
yum install httpd -y
chkconfig httpd on
cd /var/www/html
aws s3 sync s3://BucketName /var/www/html
service httpd start



Step 11: Copy the public IPv4 address and paste it in a new tab. Your website will be live.

I Just hosted my portfolio website 😊



Essentials of AWS EC2

- **Scalability:** We can scale up or scale down the storage depending upon the traffic server. If there is a low traffic in our server then we can decrease it's storage and vice versa.
- **Flexibility:** In terms of flexibility, AWS is highly flexible. Suppose, if we want to host our website or an application for only 1 hour then we have to pay for only one hour.
- **Security:** AWS takes care of our stored data & also eliminates suspicious activities.
- **Cost Effective:** AWS has something called 'Free Tier Account' where we can use all the features of AWS free for whole one year. It also has a feature 'Pay as you go model' i.e. we have to pay only for those services which we have taken at lease.

Link of the website running on AWS EC2 Instance

GitHub Repo

Presentation