Microsoft Azure Champions League

TEAM NAME and MEMBER DETAILS-

Team Name - Thought Solvers

Member Details -

1. Rishi B

THEME-

❖ <u>Open Innovation with Azure Serverless</u>

Problem Statement-

Corona virus is spreading in the world like fire at very fast rate. It is affecting nations across the globe. This is a communicable virus, spreading from one person to another. However, it's important to keep an eye on the count of person getting infected.

➢ Having matrix how many people are getting infected, help in planning out how to deal with situation, how many medical equipment's will be required, how many healthcare units will be needed.

➢ Matrix help in cost estimation of all the medical need required from government, so government can prepare budget and should have enough resources to help people.

It is important to keep track of the people getting infected at daily bases. And all this crucial information needed to be provided without any third-party apps installation on their device.

Solution-

➢ Having a system which can help any induvial track number of positive cases registered till date. The system we choose is a website which can be viewed in all the devices. Furthermore, it requires no third-party apps installation and can be easily viewed in their existing browser or pre-defined browser.

➢ Any Individual can check the number of positive cases registered on any particular day in selection.

➢ Along with the Covid-19 details this website gives the weather and location details to a person.

1. How metric is useful?

➤ In today's world, for anything if a person has to give any conclusion or find out a way for something, data is very important.

➤ Data (metric) help in analyzing or understanding how any situation is getting reduce or expanding.

➤ A Covid-19 website designed in a way to give the data for the positive cases, how many people recovered and how many died in a day.

➤ Visual representation of data in the form of bar graph represent data for current week for positive cases confirmed, number of people recovered and number of deaths registered.

2. Frameworks/Tools/Technologies stacks used for developing such websites?

➤ Frameworks used for my website design and development is **.Net Core 3.1**

➤ Tools used for my website design, development and deployment was **Visual Studio 2019**.

➤ Currently I used Microsoft Technology stack to build and deploy my website and I used **Microsoft Azure** as my cloud provider.

3. Reason behind choosing Microsoft technology?

➤ Microsoft is well known for its enterprise development tools and services.

➤ Microsoft also provides us cloud services known as Microsoft Azure which is majorly used in deployment phase for any application development life cycle.

➤ Rapid development and ease of Web API development are some of many advantages using Microsoft Stack

4. How easily can your solution be implemented and how effective will it be?

➤ Anyone with .Net development experience and also by using Microsoft free community version of visual studio along with free .Net core 3.1 SDK can develop such websites at ease.

➢ Getting real time covid-19 data is easy but in current scenario one needs to install such real time covid-19 data apps in their mobile which may require additional memory space and may also have some privacy and security issues. So, I came up with a website which can viewed in both mobile and desktop.

➢ By this one can visualize the real time covid-19 data using the bar charts which I have provided in my website irrespective of any device. Since my website is deployed in Microsoft Azure the accessibility and scalability problems are minimal.

5. Extent of Scalability/Usability?

➢ Since my website is deployed in Microsoft Azure and presently I am using azure web app service with a standard plan so scalability is not an issue

➢ Currently my website is viewed with in 44 different countries/regions around the globe with 1000+ unique IP address below is the screenshot.
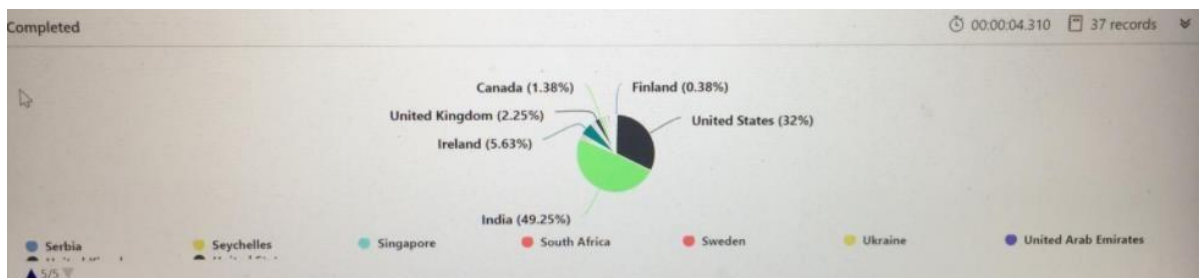

Azure Services-

Below is the list of Microsoft Azure Services used when developing my website.

➢ Azure Web App-

- Azure Web Apps provides a platform to build an App in Azure without having to deploy, configure and maintain your own Azure VM's.

- You can build Web App using the ASP.NET, PHP, Node.js and Python.

- They also integrate common development environments which could be Visual Studio and GitHub.

➢ Azure Application Insights-

- Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service for developers and DevOps professionals.

- Use it to monitor your live applications. It's designed to help you continuously improve performance and usability.

- It will automatically detect performance anomalies, and includes powerful analytics tools to help you diagnose issues and to understand what users actually do with your app.
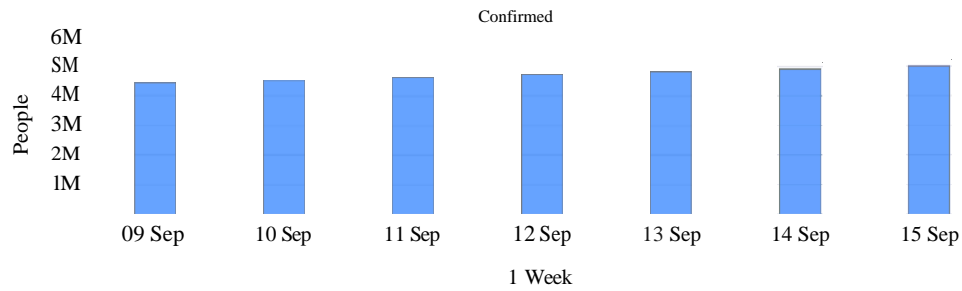
METHODOLOGY-

❖ Architecture Diagram-
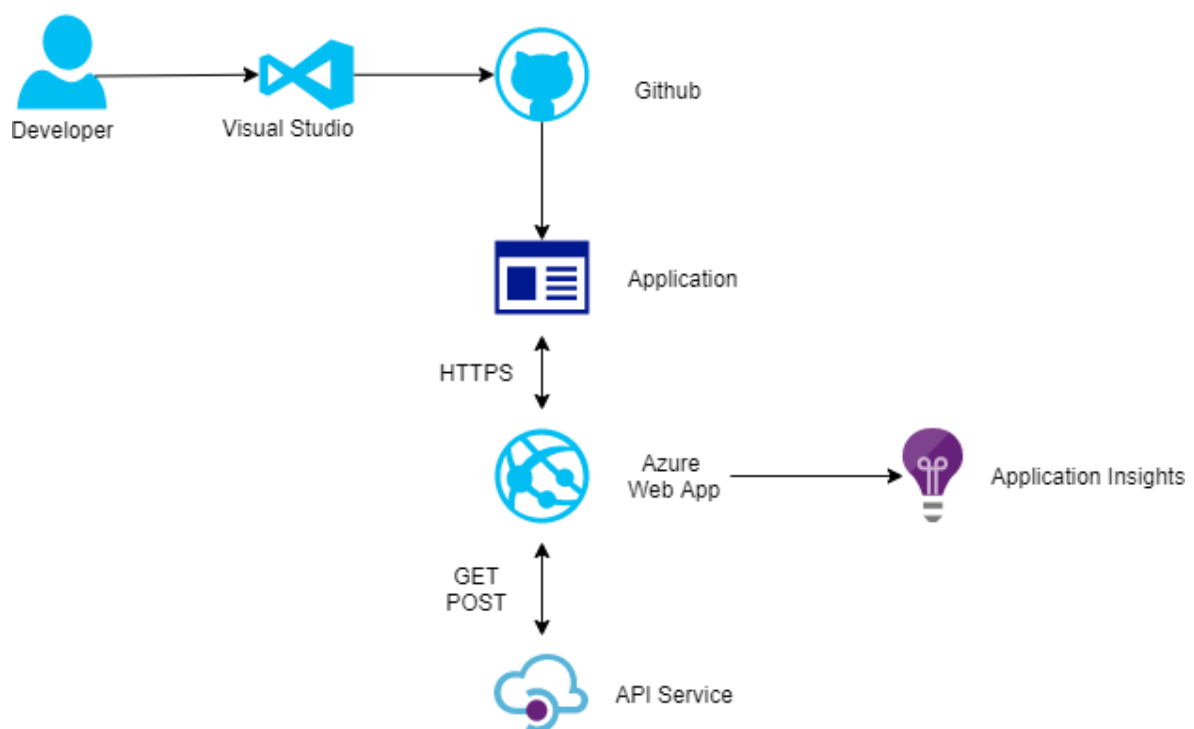
❖ Graphical representation-

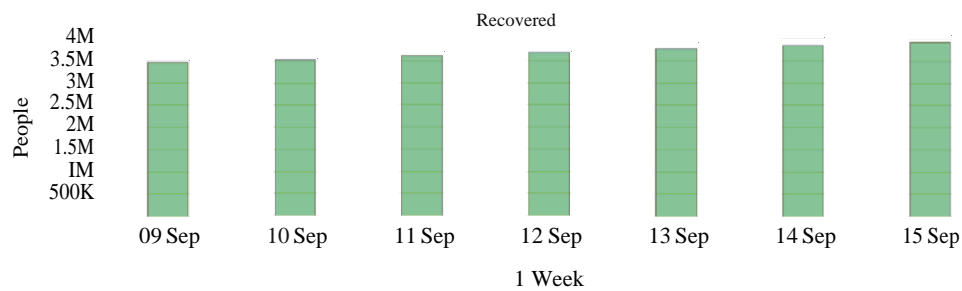➢ In our website we are using Bar Graph to Represent the real time data.

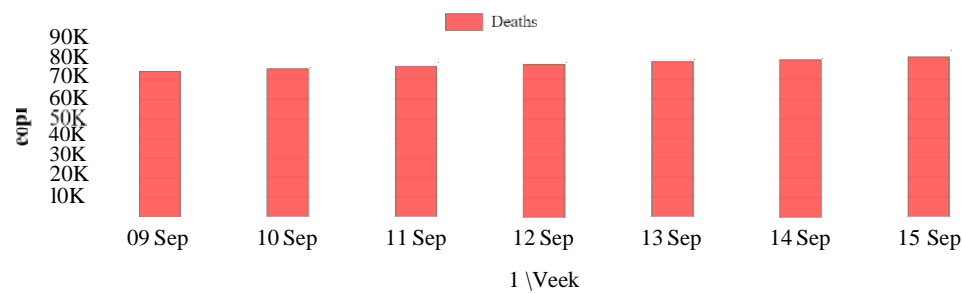| Active	Confirmed	Recovered	Deceased	LastUpdatedTime
IM	5.06M	3.97M	82.5K	16/09/2020 19:25‹56

Covid-19 India

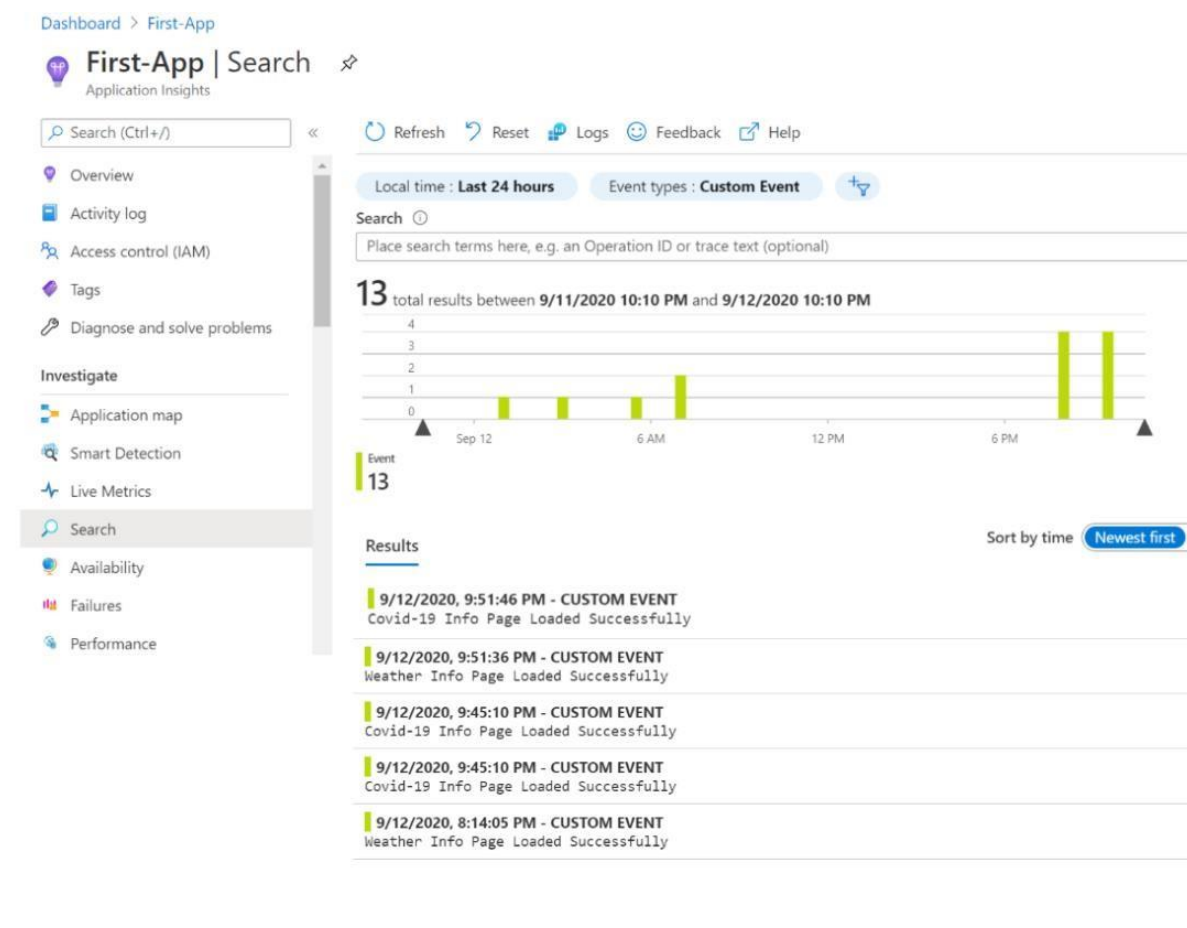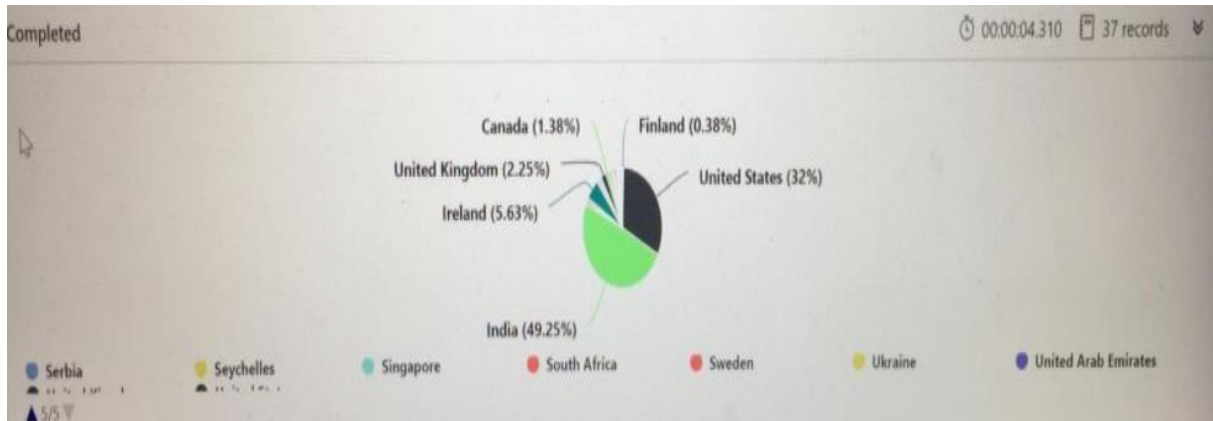Confirmed

Covid-19 India

Recovered

Covid-19 India

Deaths

❖ <u>Analysis and visualization-</u>

➢ I used Azure Application Insights for Analyzing our website traffic as well as collecting customized events and pushing those events to Azure Application Insights.

WORKING PROTOTYPE-

➤ Below is the working website video URL-

- **https://drive.google.com/file/d/1YdVga8_UtXaqWtWAt4njHUAjyB-ygmV7/view**

ATTACHMENTS-

➤ Below are the screenshots for my website-

RISHI　COVID19-INDIA　WEATHER

Please select state　　　　　　　Invalid date format

Search　　Raset

Active	Confirmed	Recovered	Deceased	LastUpdatedTime
964K	4.71M	3.67M	78K	12/0S/2020 21:24:51

RISHI　COVID19-INDIA　WEATHER

State*　|　Select a state　　　　°　Date"　dd-mmm-yy　　Confirmed ☐　Recovered ☐　Deceased ☐

Saarch　　Recet

Date	State	Confirmed	Recovered	Deceased	Details
02-Sap-20	Telangana	2892	2240	10	Info

Active	Confirmed	Recovered	Deceased	LastUpdatedTime

← & @ https://covid19-wld.ozureweosites.net/Home/Index 🔍 ☆ ⭐ 🗇 👤

RISHI   COVID19-INDIA   WEATHER

State* | Select a state | | Recovered ☐ | Deceased ☐

Addtional Information ✕

Active-32537, Confirmed- 133406, Deaths-856

DeltaConfirmed-2817, DeltaDeaths-10

DeltaRecovered-2611

LastUpdatedTime-03/09/2020 10:51:32

Recovered-100013

State-Telangana

StateCode-TG

StateNotes-[July 27] Telangana bulletin for the previous day is released on the next day. We will add the cases for Telangana against the date of release, as that is the convention that we are following for other states. -- District-wise numbers are not reported because cumulative counts for each district are not provided in Telangana bulletin

Close

Date	State			Deceased	Details
02-Sep-20	Telangana			10	Info

← @ @ https://covid19-wld.azurewebsites.net/Home/Index 🔍 ☆ ⭐ 🗇 👤

RISHI   COVID19-INDIA   WEATHER

| State* | Select a state ▼ | Date* 📅 dd-mmm-yy | Confirmed ☐ | Recovered ☐ | Deceased ☐ |

Select a state
All
Andaman and Nicobar Islands
Andhra Pradesh
runachal Pradesh
ssam
Bihar

Search   Reset

	Confirmed	Recovered	Deceased	Details
02-5	2892	2240	10	Info

Chhattisgarh
Dadra and Nagar Haveli and Daman and Diu

Confirmed	Recovered	Deceased	LastUpdatedTime
3.8SM	2.97M	67.SK	03/09/2020 II:39:18

RIS H I COVI D19 INDIA

State*	Select a state	•	Date" red		0	Recovered 0	Deceased 0

0   Sep   0 0   O

1   2

Date	State	Con		Deceased	Details
02-Sep-20	Telangana			10	Info

Active	Confirmed	Recovered	Deceased	LastUpdatedTime
818K	3.85M	Z.97E#	67.5K	03/09/Z0Z011:39:18

RI SH I COVE D1 9- NORA

State*	Delhi	*	Date•	02-Sep-20	Confirmed M	Recover+d	Deceased 0

Date	State	Confirmed	Recovered	Deceased	Details
02-Sep-20	Delhi	2509			Info

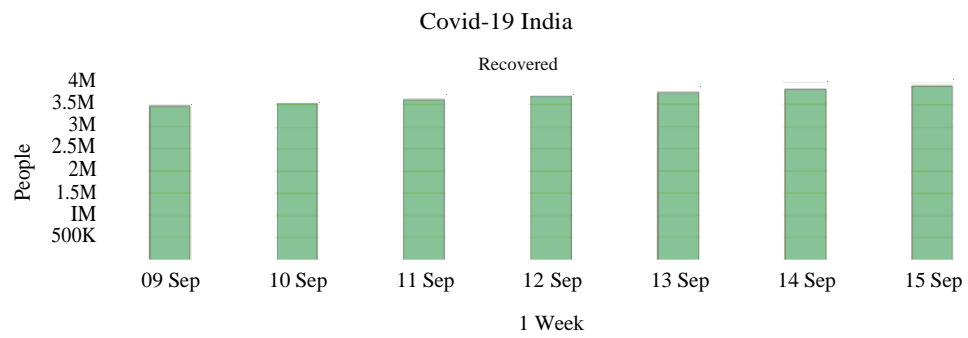| Active	Confirmed	Recovered	Deceased	LastUpdatedTime
1M	5.06M	3.97M	82.5 k	16/09/2020 19:25:56

Covid-19 India

Confirmed

6M
SM
4M
3M
2M
lM

People

09 Sep   10 Sep   11 Sep   12 Sep   13 Sep   14 Sep   15 Sep

1 Week

Covid-19 India

Recovered

People

4M
3.5M
3M
2.5M
2M
1.5M
IM
500K

09 Sep   10 Sep   11 Sep   12 Sep   13 Sep   14 Sep   15 Sep

1 Week

Covid-19 India

Deaths

copl

90K
80K
70K
60K
50K
40K
30K
20K
10K

09 Sep   l0 Sep   11 Sep   12 Sep   13 Sep   14 Sep   15 Sep

1 \Veek
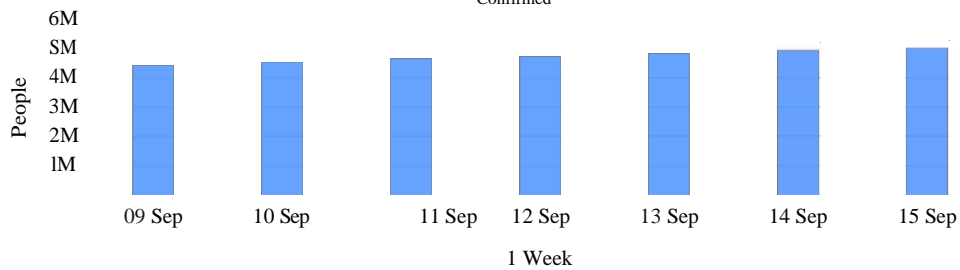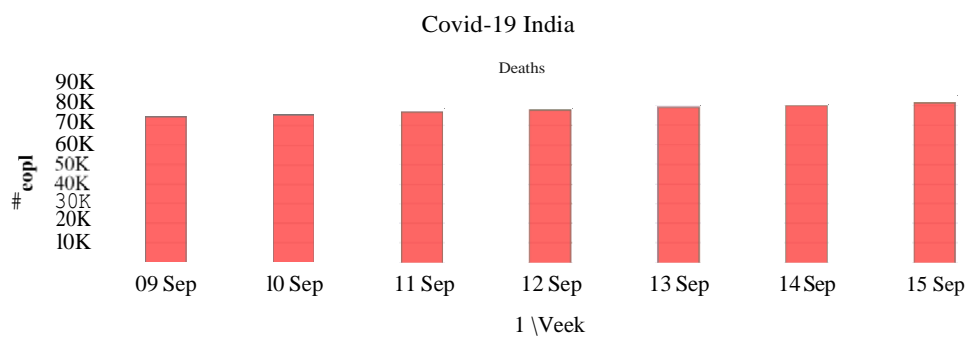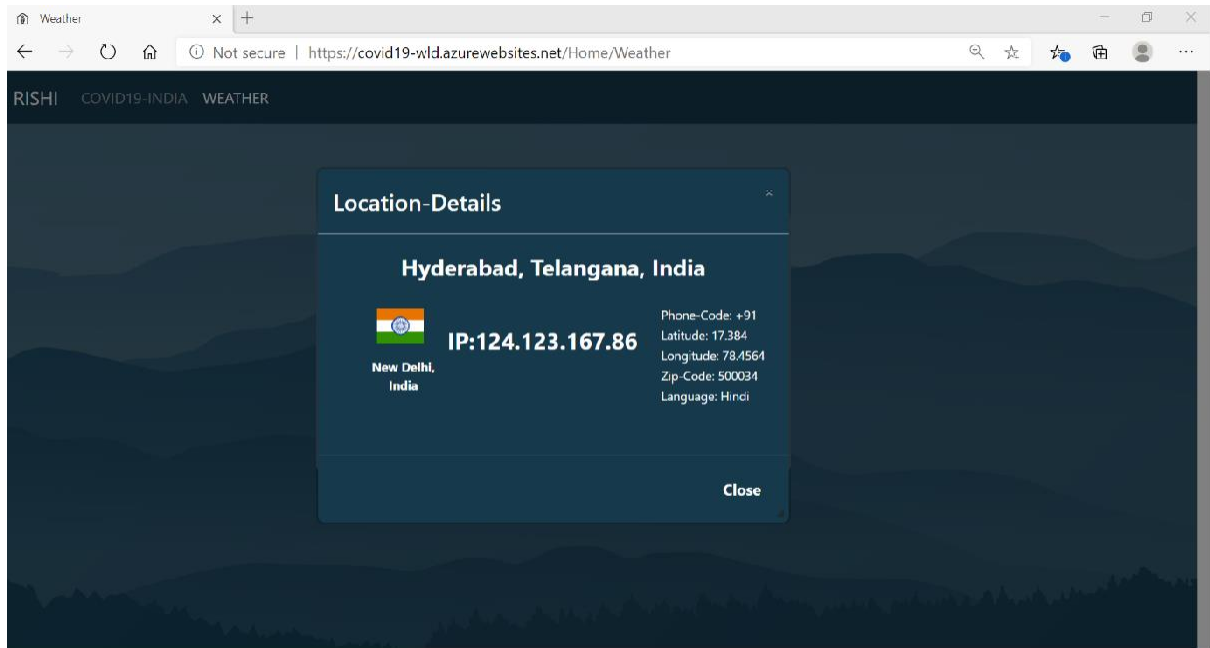
> ➢ Below is the GIT Repo URL for my website-

  - **https://github.com/rishi22raj94/covid19-wld**
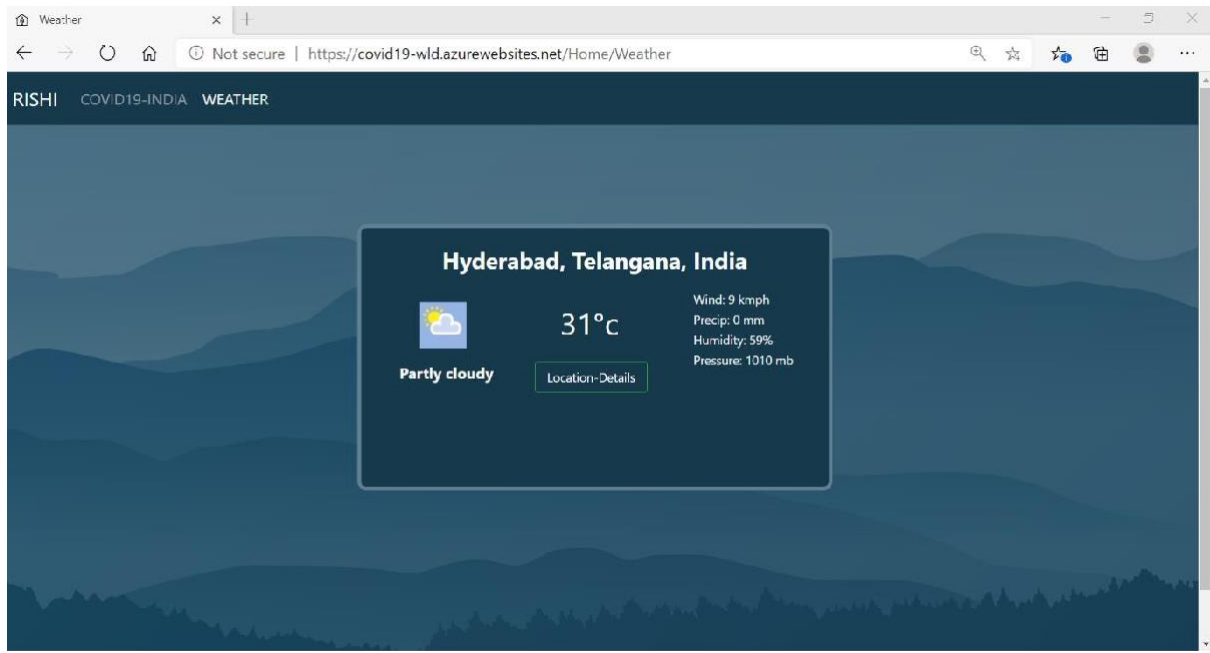
SOCIETAL IMPACT/ NOVELTY-

➢ As with vast spread of the deadly corona virus having a covid-19 website which keeps people up to date with the covid-19 cases registered, people died of corona and people recovered from corona is a boon.

➢ People with a click on their phone or laptop can get a track of total number of patients infected with virus in their state /country. Along with that this website have additional feature which let user know about the current weather conditions and give the location details for the user.

FUTURE SCOPE-

➢ Business Relevance –

- The aim to have a utility which let user track the increasing covid-19 cases in India.

➢ Optimization /Scope of modification –

- This application aims to enhance the functionality by providing additional features as listed below –

  I. Ability to let user across the globe check with covid-19 patient in their nation/country.

  II. Let the user select range of area to check the corona positive cases, number of patients recovered, number of people died. This feature will be most helpful in letting the user to know the nearest case in their close by area.