Name: Rohit Jain
Roll No.: 333048
GR No.: 22010315
Div: TY-IT-C

Cloud & DevOps

Assignment 3

Aim: Deploy Web application on AWS Cloud (or any cloud)

(PHP/Python/Node js any application)

Theory:

1) Cloud Computing Definition

Cloud computing is a model for enabling ubiquitous, convenient, on demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

2) Cloud Service models and Deployment models

• Service Models:

a) Software as a Service (SaaS): The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure

2. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g. web-based email), or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user- specific application configuration settings.

b) Platform as a Service (PaaS): The capability provided to the consumer is to deploy onto the cloud infrastructure consumer created or acquired applications created using programming languages, libraries, services, and tools supported by the provider.

3. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.

c) Infrastructure as a Service (IaaS): The capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems,

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storage, and deployed applications and possibly limited control of select networking components (e.g., host firewalls).

• Deployment models

a) Private cloud: The cloud infrastructure is provisioned for exclusive use by a single organization comprising multiple consumers (e.g. business units). It may be owned, managed, and operated by the

organization, a third party, or some combination of them, and it may exist on or off premises.

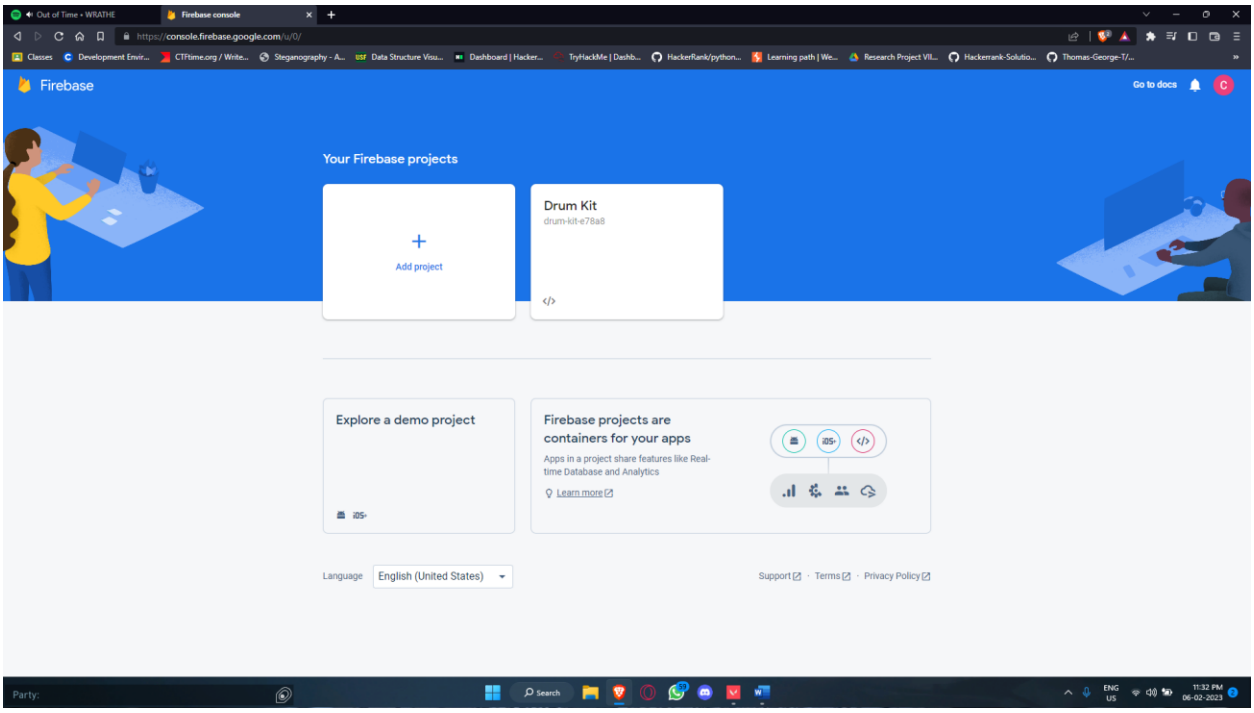
b) Public cloud: The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them. It exists on the premises of the cloud provider.

c) Hybrid cloud: The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by

standardized or proprietary technology that enables data and application portability (e.g., cloud bursting for load balancing between clouds).

Procedure:

1) Create an account on firebase and go to console



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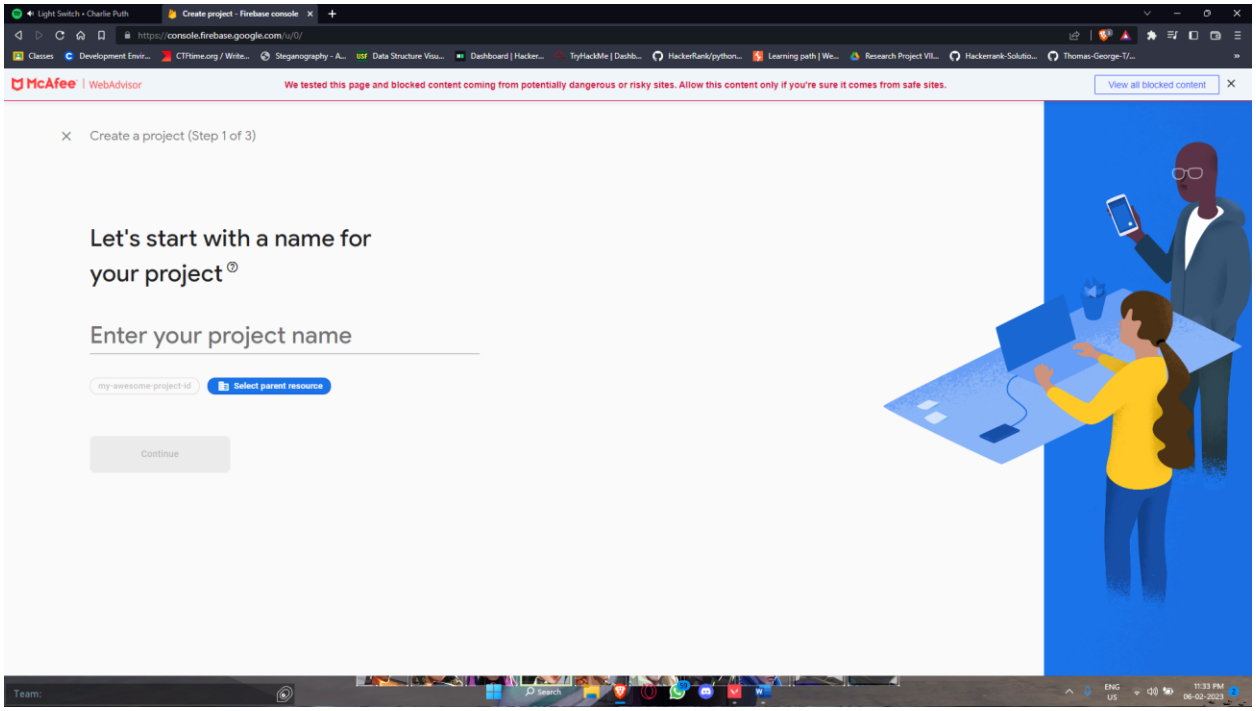
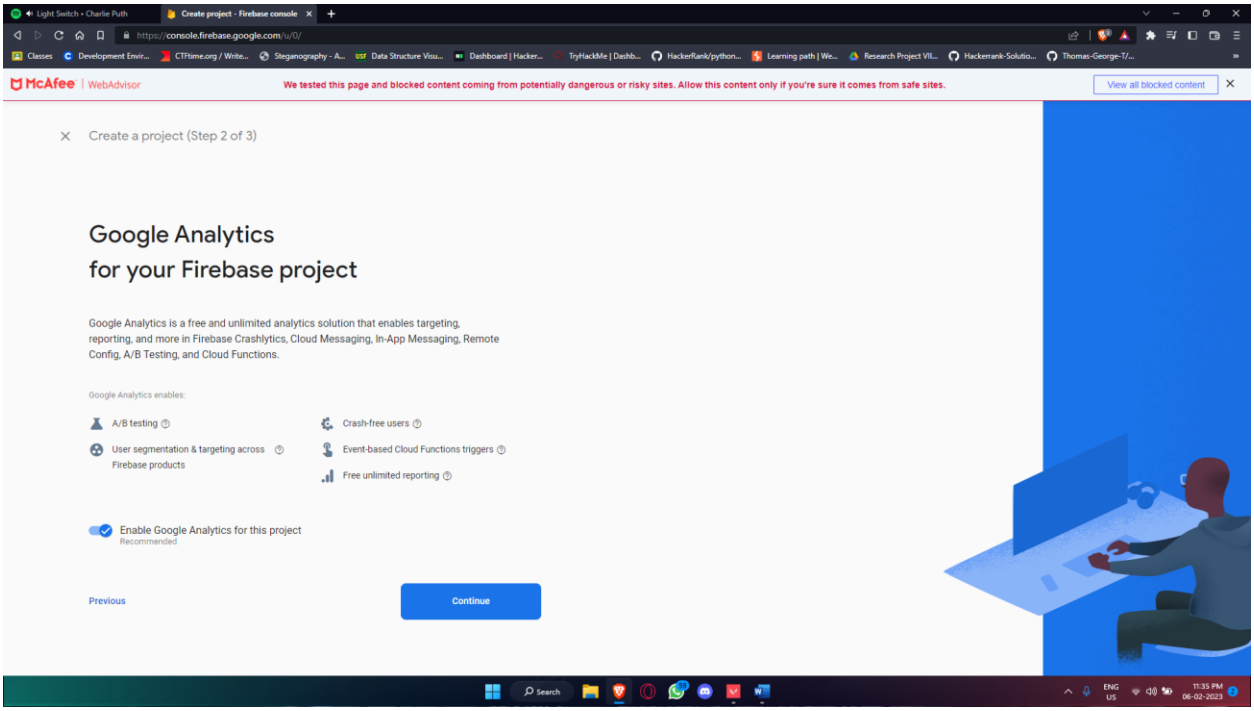
2) Go to add project and fill the details



3) Enable google data analytics



4) Select Default account for firebase

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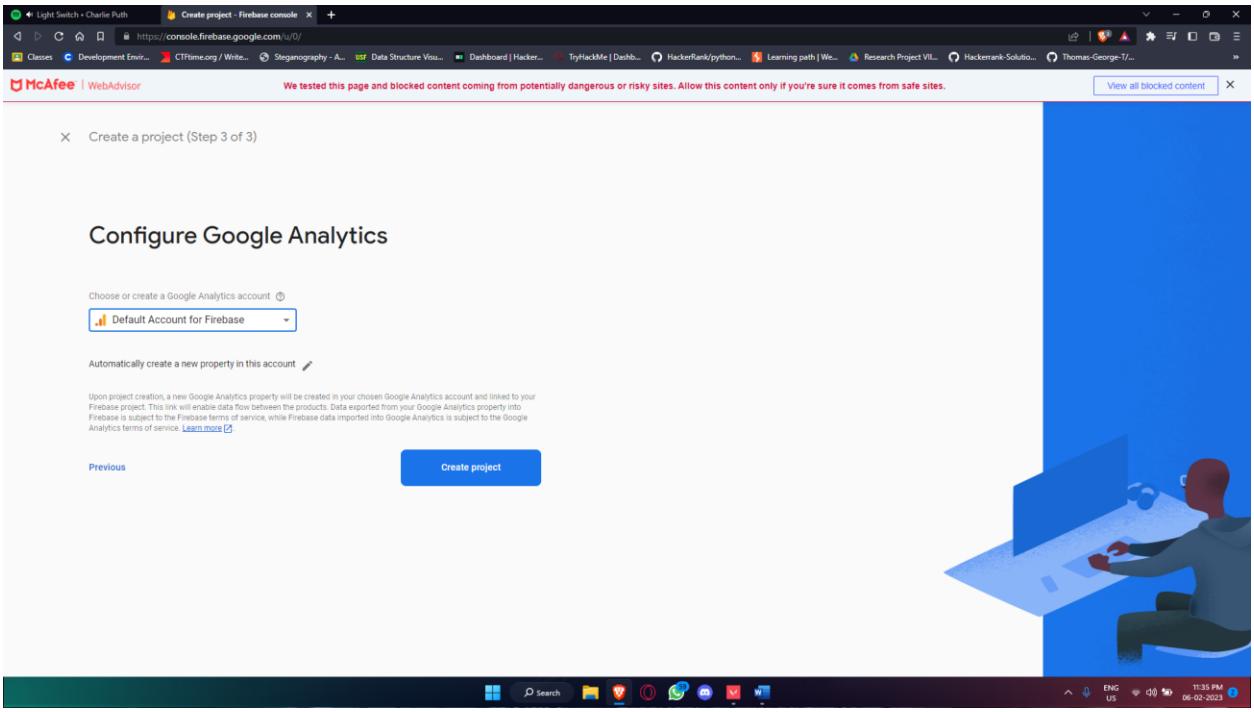
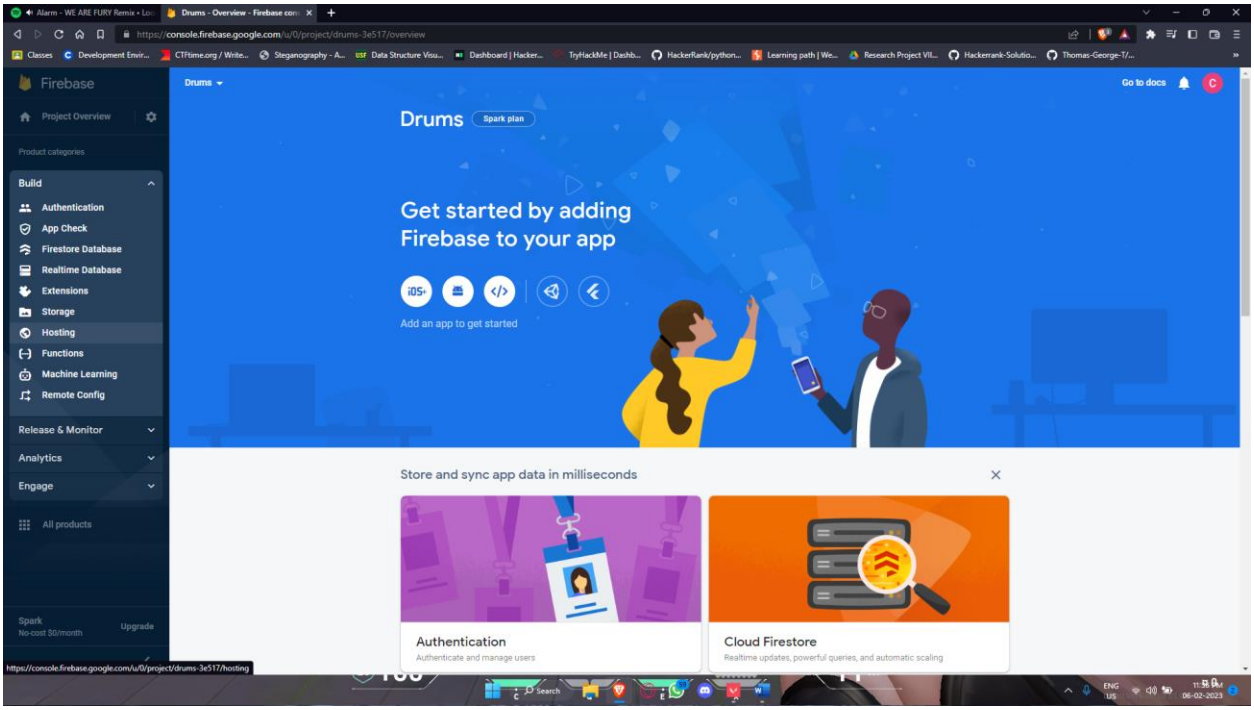


5) Go to hosting and get started



6) Install firebase CLI

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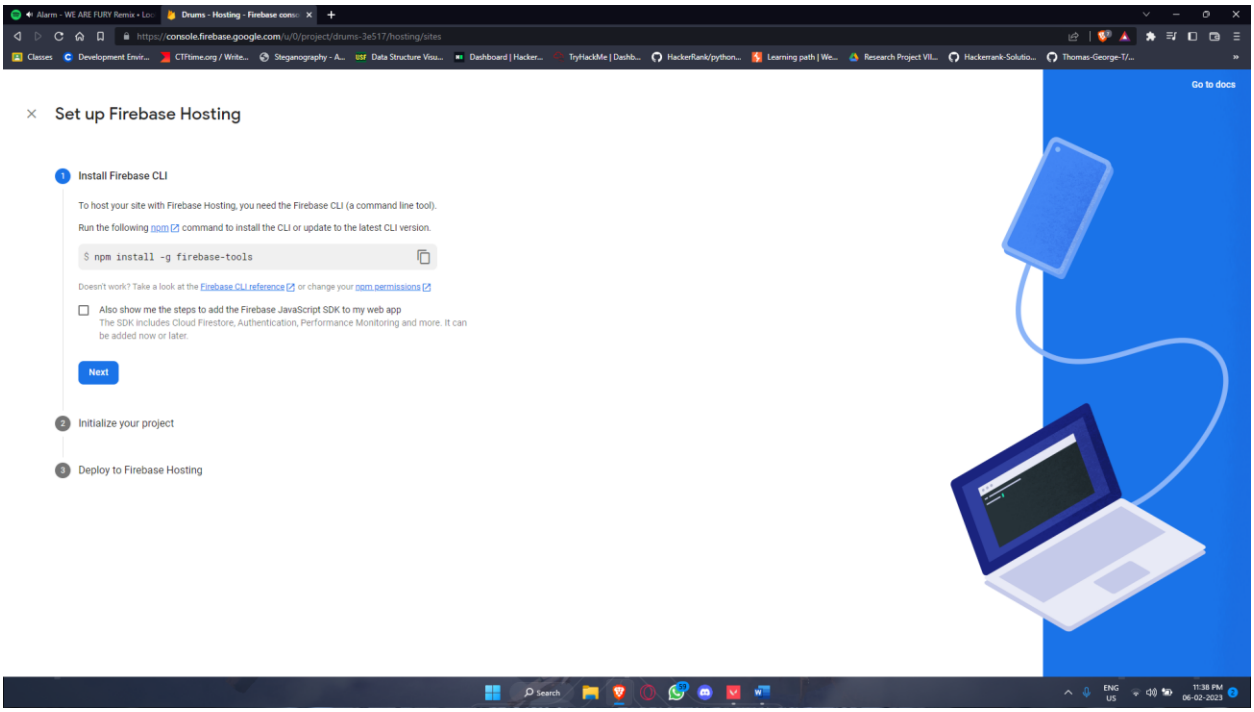
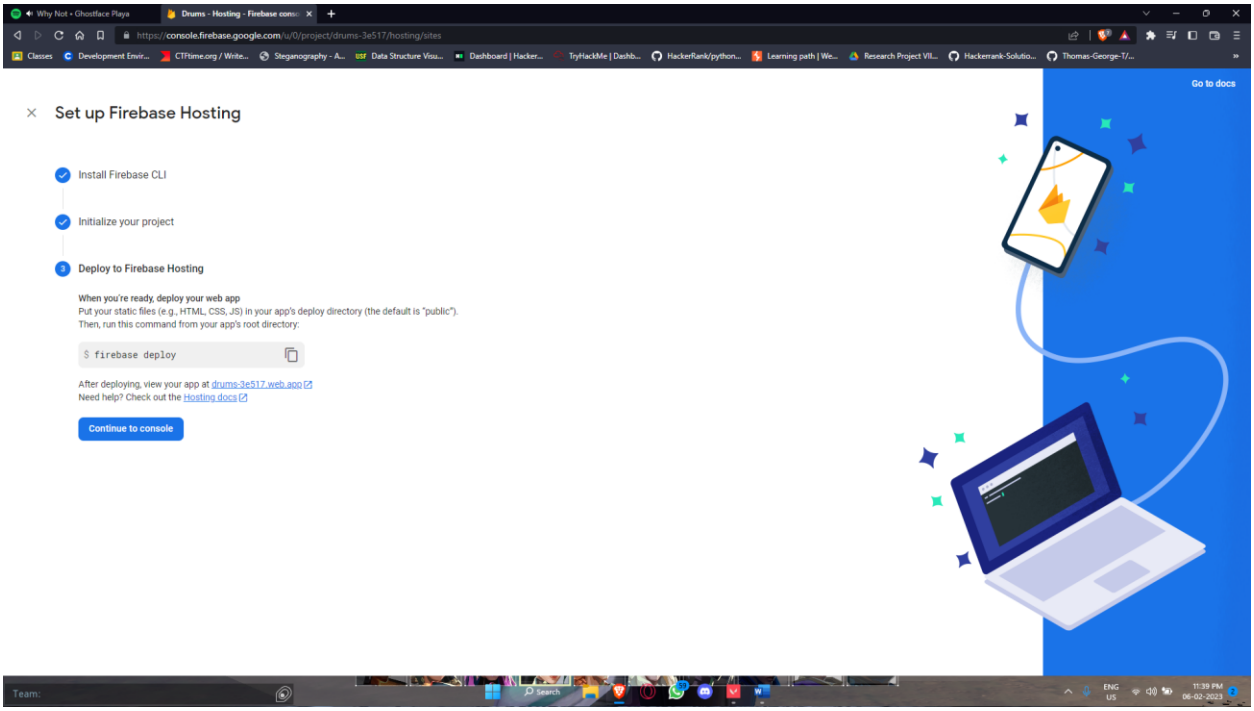


7) Initialize your project and run these commands
   $ firebase login
   $ firebase init
   $ firebase deploy
   And continue to console



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8) Deploy website through terminal