

CCS3316-Cloud Infrastructure Design

Group Name: Next Level Masters

Group Project

Group Members

- 1) Nethma Pathirana - 21UG0034
- 2) Janith Hettiarachchi - 21UG0228
- 3) Rasadari Lakshika - 21UG0847
- 4) Iffath Hana - 21UG0092
- 5) Kesara Lakpriya - 21UG0166
- 6) Yeshni - AA2107

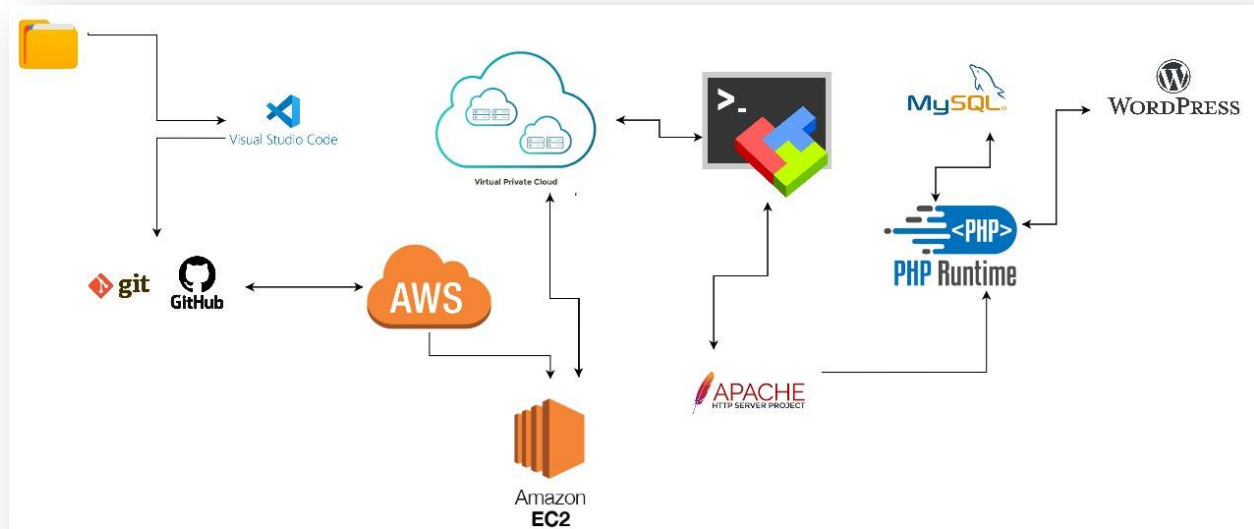
Business Case

Create an online marketplace for selling various automobiles while providing clients with a user-friendly and safe platform.

Goals:

- **Allow for easy Vehicle Shopping** - Provide consumers with an easy and straightforward platform for exploring and purchasing a variety of cars.
- **Prioritize user data security** - Put in place strong security measures to safeguard user data and financial activities.
- **Cost-cutting while maintaining performance** - Manage expenses effectively while maintaining platform performance in a competitive market.

Architectural diagram



Justification for the chosen AWS services

The services we used in AWS are VPC, EC2 and S3.

- ✚ **Amazon Virtual Private Cloud (VPC)** - VPC creates logically isolated AWS Cloud sections for launching resources, enables security, and segmentation, controlling network environment, IP address ranges, subnets, and route tables.
- ✚ **Amazon EC2 (Elastic Compute Cloud)** - EC2 offers scalable cloud computing capacity for hosting applications, websites, and services, allowing users to launch virtual servers with various configurations, operating systems, and storage options.
- ✚ **Amazon S3 (Simple Storage Service)** - S3 is a web-based scalable object storage service used for data backup, archiving, content distribution, and application storage. It offers secure, durable, and highly available infrastructure for static website hosting and data analytics.

Explanation of how your design adheres to the AWS Well-Architected Framework.

In our project we used aws to create a virtual computer. This will be able to install a web server that handles http requests.

We created an EC2 instance. This instance uses an elastic IP address. Our remote host is the public Ipv4 address of the EC2 instance we created. Inside this instance, we have a virtual private cloud.

Next to connect to the instance using ssh we used a ssh client called Mobaxterm. In this, we first downloaded our web server, apache. Then we installed php runtime and MySQL connector for php. We also installed our database, MySQL and WordPress.

Then we developed our WordPress site. This is the link of our Wordpress site - <http://3.0.189.27/wordpress/>

Challenges

- Unable to identify how to do this project.
- Unable to create pipeline between Github repository and EC2 instance.

Cost Analysis

