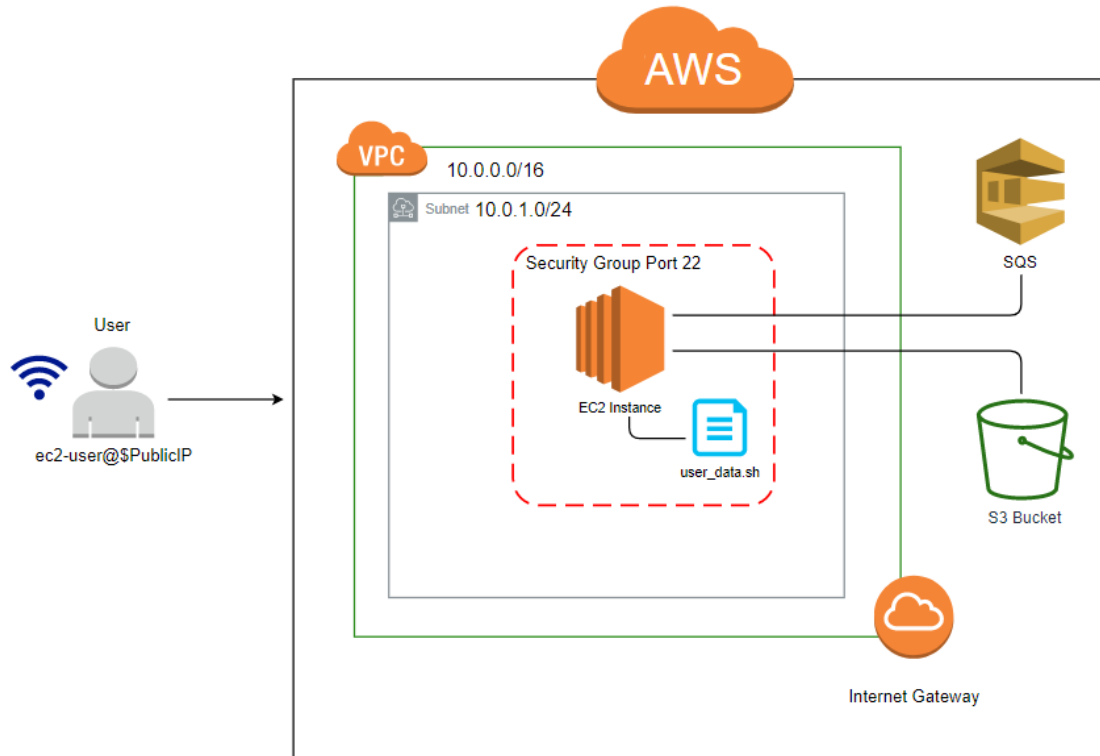CA1 System Design

Name: Denis Mooney

System Design

IaaS Service: EC2

PaaS Services: S3, SQS

Explanation:

A User must successfully connect to the AWS Console to access the components. A Virtual Private Cloud (VPC) is created. A Subnet is also created as a smaller part of the VPC. The internet gateway allows safe access from the VPC to the internet.

An EC2 instance is created as a virtual machine for running the application. A Security Group with Port 22 is to ensure no unauthorized traffic is coming in or out of the EC2 instance. The user_data.sh includes commands to fully setup the EC2 instance.

An S3 Bucket provided by AWS is used to hold data securely in the cloud. A User has the ability to upload data to the S3 bucket and how to download, modify and delete data from the S3 Bucket. A Simple Queue Service (SQS) is a messaging service that allows Users to send and receive messages. In this assessment, messages were sent to a queue and opened using a PowerShell file.

A User can access the EC2 Instance on the AWS CLI when entered 'ec2-user@$PublicIP' using the Public IP part of the EC2 Instance.