**Purpose:**

In this lab, students are asked to create infrastructure used to test software for the startup BitBeat. First, I created a VPC in order to deploy an Amazon EC2 instance that could be used for long-term testing. The VPC I created was a non-default one and required some extra steps to properly configure.

**Problems:**

While creating the VPC that would launch the EC2 instance, I created both private and public subnets. While creating public and private route tables, I associated the routes with the incorrect subnets and had to reconfigure them to correspond with the same subnets.

**Screenshots:**

Launched VPC

Graphical user interface, text, application, email

Description automatically generated

Launched EC2 instance

Graphical user interface, text, application

Description automatically generated

**Purpose**

As the startup BitBeat expands, students must create a NoSQL database to store data and support future growth. To do this, I utilized Amazon Dynamo DB, which is a fully managed proprietary NoSQL database service. It has a flexible and easily scalable service that makes it a good match for organizations that are experiencing many internal changes like BitBeat.

**Problems**

Originally, I had trouble figuring out how to add new attributes to each item and confused the button to add a search filter with the editing button. However, this was easily resolved as I explored the service more.

**Screenshots**

Items

Graphical user interface, application, website

Description automatically generated

Table Query

Graphical user interface, website

Description automatically generated

**Purpose:**

In this lab, students build a cloud server and create a key pair to SSH/login into the cloud instance. This private key is needed to access any cloud instances you make and has access to sensitive information in those servers.

**Problems:**

Part of this lab required us to download the Putty application and use it to SSH into our EC2 instances. It was difficult for me to figure out how to download the application at first since I just got a new computer and am not fully used to using X-Code on mac and the Linux software in general.

**Screenshots:**

EC2 Instance

Graphical user interface, text, application

Description automatically generated

Security groups

A screenshot of a computer

Description automatically generated with medium confidence