**A screenshot of a computer

Description automatically generated**

**AWS Infrastructure for Frontend, Backend and Database service.**

The front-end service is hosted in the public subnet while the backend and database services are hosted in the private subnet.

**Virtual private cloud:**

**CIDR Block: 10.0.0.0/20 = 4096-2 = 4094 hosts.**

Since we are scaling between 1 and 1000 servers for our backend applications, and other resources not mentioned, we are provisioning 4000 Ip address slots and 94 extras for other need that may arise, this is because our application is limited to a small niche, otherwise we would scale up our CIDR block to 10.0.0.0/16, which will give us more Ip address slots (65,534).

**Subnets:**

**CIDR Block Range Allocation:**

**Front-end Service: 10.0.1.0/21 = 2046**

**Database Service: 10.0.2.0/22 = 1022**

**Back-end Service: 10.0.3.0/22 =1022,** I am assigning this CIDR block range as this will cover the need for our servers since they are scalable from 1 -1000 servers, hence 1022 IP addresses covers this.