

3. SETUP OF CLOUD ARCHITECTURE

3.1 DESCRIPTION

The first step in development of the web application was the setup of the entire cloud architecture. This was necessary as the entire testing, deployment and debugging was targeted at this platform. This required that I start off with analyzing the requirements of the application and prepare a document outlining the technical choices for the app.

3.2 DEEP DIVE INTO THE TECHNICAL ASPECTS OF THE ARCHITECTURE

The first step to setting up the architecture was to decide the technical aspects.

1. The choice of the operating system was Ubuntu 16.04 LTS server edition. This choice was attributed to the large community, support and proven track record of the reliability of the operating system. Ubuntu also has the largest package support and is relatively easy to use from the command line. And this was going to be the primary interface of the server.
2. The server chosen was from the list of AWS's EC2 instances. This provides a simple UI to choose the requirements of the type of the server for the application and control over various parameters like number of CPU cores, amount of RAM, Networking speed, Storage type, Storage space and IP interface to the internet (IPV4 or IPV6).
3. Next was choosing the operating system to be installed on the EC2 instance and as previously mentioned, the choice was Ubuntu 16.04 LTS Server Edition.
4. Internal Private Networking needed to be setup as the database servers and Web-Facing servers were on separate instances. Private networking is important for maintaining security of the application. This also provides a dedicated line between all the servers, thus reducing latency.
5. The Security Groups of the servers were to be assigned and only certain ports were to be allowed. This is a major security step, as it prevents snooping on unnecessary ports and