Problem Statement

1.

A. Your organization is using CIDR concept to get their IP Address. They bought IP addresses

10.0.1.0/16 . Using this they are creating 4 subnets (W,X,Y,Z). 2 subnets W and Y are of equal size. They are having each 24 users per subnet. Subnet X is having 32 users and Subnet Z is using 48 users. What is the balance address range for further use.

B. Mention the transport layer protocols you will use if reliability is the requirement

C. you’ve 15 users who’s pwd needs to be verified when they’re logging. How it can be achieved.

2.      You’re planning a development of an application using cloud services. This application involved multiskilled professionals and the efficiency of the application is greatly impacted by its development environment. Also the application is deployed as webservice. Justify with 5 points which MAD architecture is better for this.

ANSWERS:

1. A.

Subnet W range : 10.0.1.0 to 10.0.64.255,

Subnet Y range : 10.0.65.0 to 10.0.128.255,

Subnet X range : 10.0.129.0 to 10.0.192.255,

Subnet Z range : 10.0.193.0 to 10.0.255.255

Balance W = 16,358

Balance Y = 16,358

Balance X = 16350

Balance Z = 16334

B. TCP can be used for reliability

C. By using the Hashing techniques, the password of the user’s can be verified when they login.

1. 1. We can use micro service architecture to deploy the application.

2. Each service can be written in different programming languages

3. It can be tested separately as it involves multiskilled professionals.

4. They can be independently deployed and organized.

5. For upgrade, we don’t need to bring down the entire application (Minimal of downtime).