VPC

Virtual Private Cloud

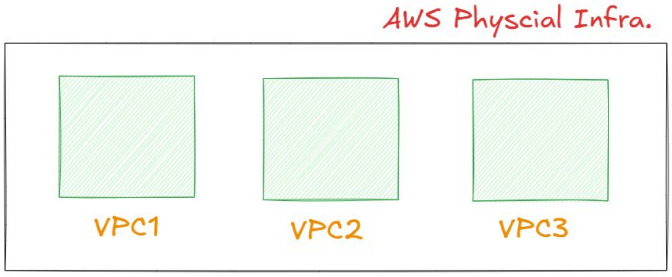
Not present physically, but exists by simulating

restricted/private access.

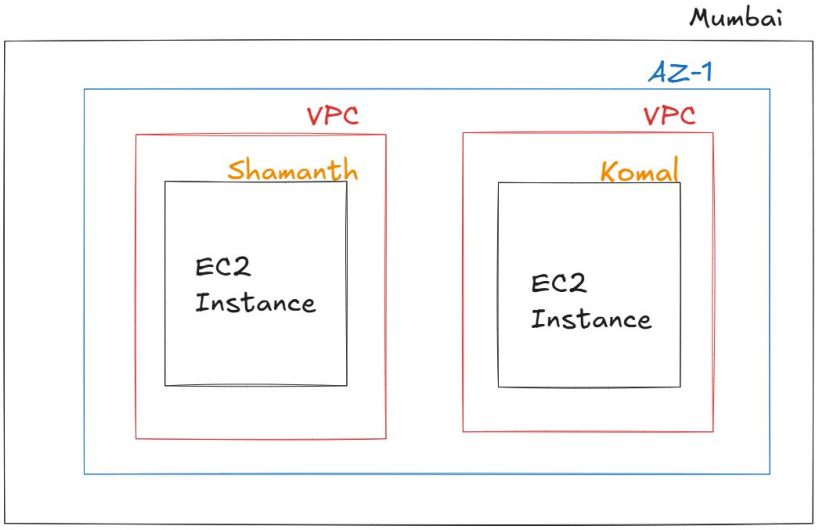
VPC in AWS cloud.

>> VPC is a virtual private network which is isolated inside AWS.

>> VPC allows us to have multiple isolated VPC's on the same physical hardware w/o interfering w each other.

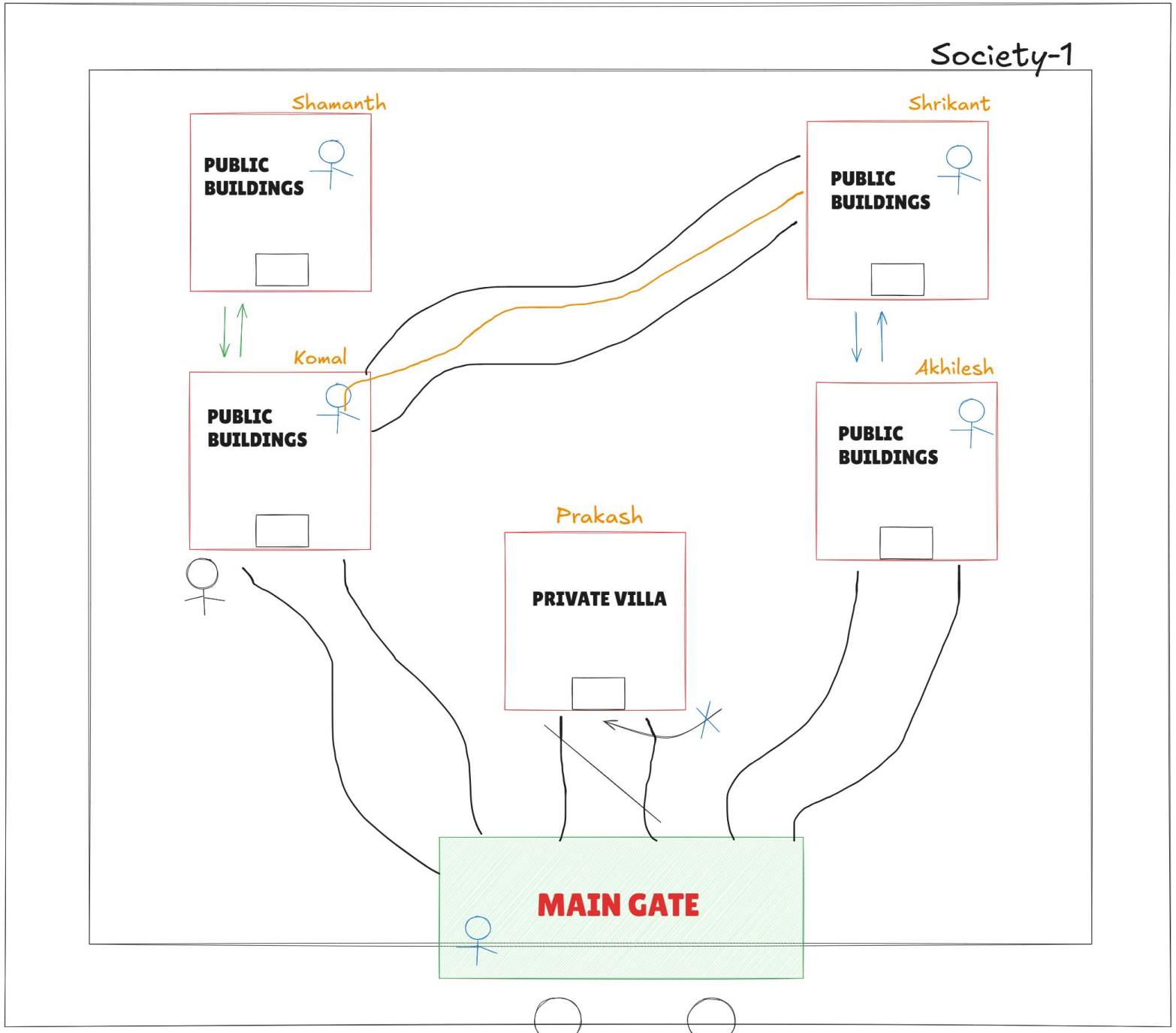


>> Imagine VPC like an own private data center for users inside AWS.



>> It is a logically isolated virtual networks that exists in a single AWS region & each VPC is independent & isolated from one another.

AWS - CITY


Society-1
Shamanth
PUBLIC BUILDINGS
Shrikant
PUBLIC BUILDINGS
Komal
PUBLIC BUILDINGS
Akhilesh
PUBLIC BUILDINGS
Prakash
PRIVATE VILLA
MAIN GATE

Components of VPC:

1. VPC:

-> With VPC, we can launch AWS resources in a logically isolated network which we have defined.

i. Default VPC:

- A default VPC is a VPC configured by the AWS for each region, which is ready to use.

ii. Non-default VPC:

- We can create our own VPCs, and configure as needed. This is called as non-default VPC.

2. Subnet:

-> A smaller division of networks inside the VPC.

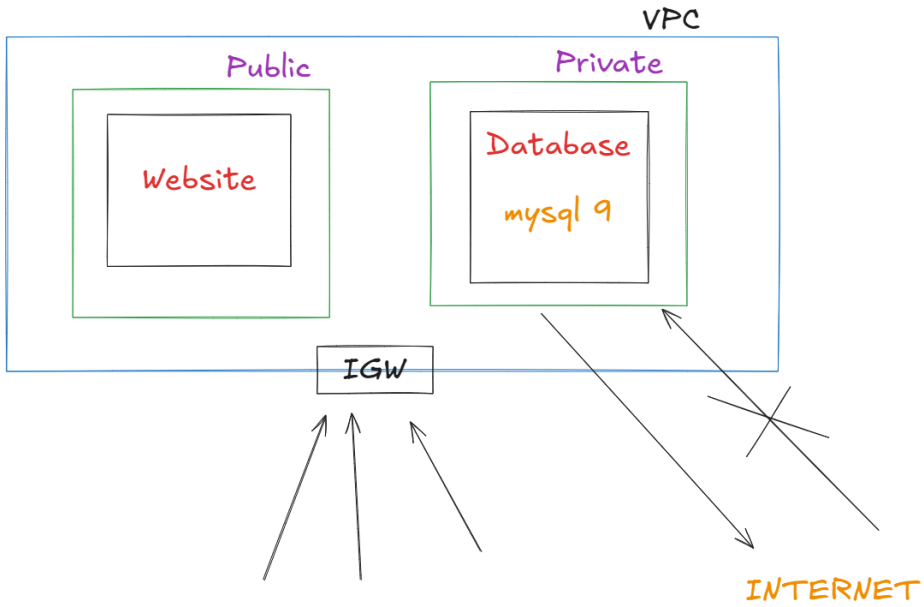
-> We are dividing the VPC's IP ranges into multiple subnets.

i. Public subnet:

- Connected to the network/Internet via Internet Gateways.

ii. Private subnet:

- No internet access directly.



3. Internet Gateway (IGW):

-> It is doorway b/w your VPC & the internet.

-> Without it, no resource in your VPC can connect to the Internet.

4. NAT Gateway:

NAT = NETWORK ADDRESS TRANSLATION GATEWAY

-> It allows private subnets resources to access the Internet, as they cannot directly connect to the Internet.

-> BUT it prevents the Internet from accessing the resources directly which are inside the private subnet.

5. Route Tables:

Whitefield ——Path——> Orion Mall