**What is Route table**

A Router is a networking device that forwards the information in form of data packets between computer network. When a data packet comes to a router port, the router reads address information in packet to determine out which port the packet will be sent.

When a packet arrives at a Router, it examines destination IP address of a received packet and make routing decisions accordingly. Routers use *Routing Tables* to determine out which interface the packet will be sent.

A routing table is a set of rules, called **routes**, that are used to determine where network traffic from your subnet or gateway is directed. Route table mainly have two columns in it.

1. Destination
2. Target

**Destination**—The range of IP addresses where you want traffic to go (destination CIDR). For example, an external corporate network with a 172.16.0.0/12 CIDR.

**Target**—The gateway, network interface, or connection through which to send the destination traffic; for example, an internet gateway.

**Note:** Route table is always associated with a subnet. After creating a Route table, we need to associate/add it to the subnet. We need to create separate route tables for Public and Private subnets.

**Routes**

Each route in a table specifies a destination and a target. For example, to enable your subnet to access the internet through an internet gateway, first create an internet gateway and attach it to the VPC then add the following route to your subnet route table.

| **Destination** | **Target** |
| --- | --- |
| 0.0.0.0/0 | igw-12345678901234567(internet gateway id) |

The destination for the route is 0.0.0.0/0, which represents all IPv4 addresses. The target is the internet gateway that's attached to your VPC.