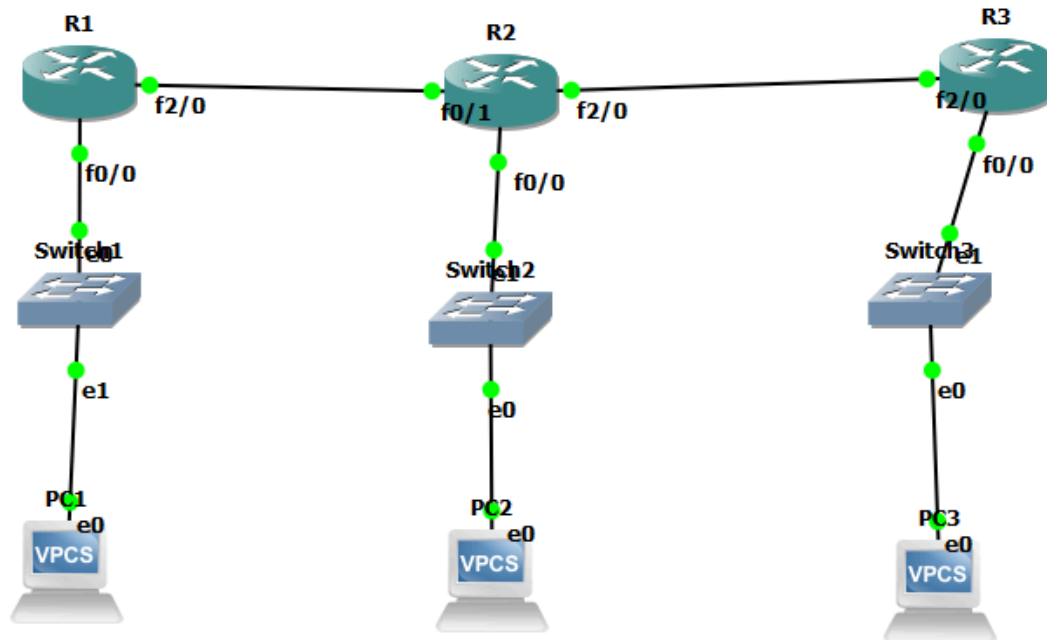


I used Cisco c7200 as a router. I downloaded it from here [Cisco Switch-Router Images](#)

## 1. Static Routing



PC1 to PC2

```
PC1> ping 192.168.2.2
84 bytes from 192.168.2.2 icmp_seq=1 ttl=62 time=120.147 ms
84 bytes from 192.168.2.2 icmp_seq=2 ttl=62 time=60.249 ms
84 bytes from 192.168.2.2 icmp_seq=3 ttl=62 time=60.210 ms
84 bytes from 192.168.2.2 icmp_seq=4 ttl=62 time=60.372 ms
84 bytes from 192.168.2.2 icmp_seq=5 ttl=62 time=60.182 ms

PC1> trace 192.168.2.2
trace to 192.168.2.2, 8 hops max, press Ctrl+C to stop
 1  192.168.1.1   15.205 ms  15.130 ms  15.207 ms
 2  192.168.4.2   45.706 ms  45.772 ms  45.173 ms
 3  *192.168.2.2   60.158 ms (ICMP type:3, code:3, Destination port unreachable)
```

## PC1 to PC3

```
PC1> ping 192.168.3.2
84 bytes from 192.168.3.2 icmp_seq=1 ttl=61 time=135.184 ms
84 bytes from 192.168.3.2 icmp_seq=2 ttl=61 time=90.850 ms
84 bytes from 192.168.3.2 icmp_seq=3 ttl=61 time=90.219 ms
84 bytes from 192.168.3.2 icmp_seq=4 ttl=61 time=90.240 ms
84 bytes from 192.168.3.2 icmp_seq=5 ttl=61 time=90.180 ms

PC1> trace 192.168.3.2
trace to 192.168.3.2, 8 hops max, press Ctrl+C to stop
 1  192.168.1.1    45.286 ms  15.116 ms  15.130 ms
 2  192.168.4.2    45.128 ms  45.152 ms  45.056 ms
 3  192.168.5.2    75.163 ms  75.809 ms  75.771 ms
 4  *192.168.3.2   90.145 ms (ICMP type:3, code:3, Destination port unreachable)
```

## PC2 to PC1

```
PC2> ping 192.168.1.2
84 bytes from 192.168.1.2 icmp_seq=1 ttl=62 time=60.149 ms
84 bytes from 192.168.1.2 icmp_seq=2 ttl=62 time=60.222 ms
84 bytes from 192.168.1.2 icmp_seq=3 ttl=62 time=60.913 ms
84 bytes from 192.168.1.2 icmp_seq=4 ttl=62 time=60.222 ms
84 bytes from 192.168.1.2 icmp_seq=5 ttl=62 time=60.184 ms

PC2> trace 192.168.1.2
trace to 192.168.1.2, 8 hops max, press Ctrl+C to stop
 1  192.168.2.1    15.105 ms  15.141 ms  15.162 ms
 2  192.168.4.1    45.141 ms  45.126 ms  45.147 ms
 3  * * *
 4  *192.168.1.2   60.194 ms (ICMP type:3, code:3, Destination port unreachable)
```

## PC2 to PC3

```
PC2> ping 192.168.3.2
192.168.3.2 icmp_seq=1 timeout
192.168.3.2 icmp_seq=2 timeout
84 bytes from 192.168.3.2 icmp_seq=3 ttl=62 time=60.250 ms
84 bytes from 192.168.3.2 icmp_seq=4 ttl=62 time=60.247 ms
84 bytes from 192.168.3.2 icmp_seq=5 ttl=62 time=60.230 ms

PC2> trace 192.168.3.2
trace to 192.168.3.2, 8 hops max, press Ctrl+C to stop
 1  192.168.2.1    15.132 ms  15.204 ms  15.126 ms
 2  192.168.5.2    45.093 ms  45.160 ms  45.159 ms
 3  *192.168.3.2   60.171 ms (ICMP type:3, code:3, Destination port unreachable)
```

## PC3 to PC1

```

PC3> ping 192.168.1.2
84 bytes from 192.168.1.2 icmp_seq=1 ttl=61 time=90.233 ms
84 bytes from 192.168.1.2 icmp_seq=2 ttl=61 time=90.249 ms
84 bytes from 192.168.1.2 icmp_seq=3 ttl=61 time=90.253 ms
84 bytes from 192.168.1.2 icmp_seq=4 ttl=61 time=90.083 ms
84 bytes from 192.168.1.2 icmp_seq=5 ttl=61 time=90.238 ms

PC3> trace 192.168.1.2
trace to 192.168.1.2, 8 hops max, press Ctrl+C to stop
 1  192.168.3.1    15.250 ms  15.204 ms  15.192 ms
 2  192.168.5.1    45.164 ms  45.166 ms  45.189 ms
 3  192.168.4.1    75.129 ms  75.166 ms  75.164 ms
 4  *192.168.1.2   90.281 ms (ICMP type:3, code:3, Destination port unreachable)

```

PC3 to PC2

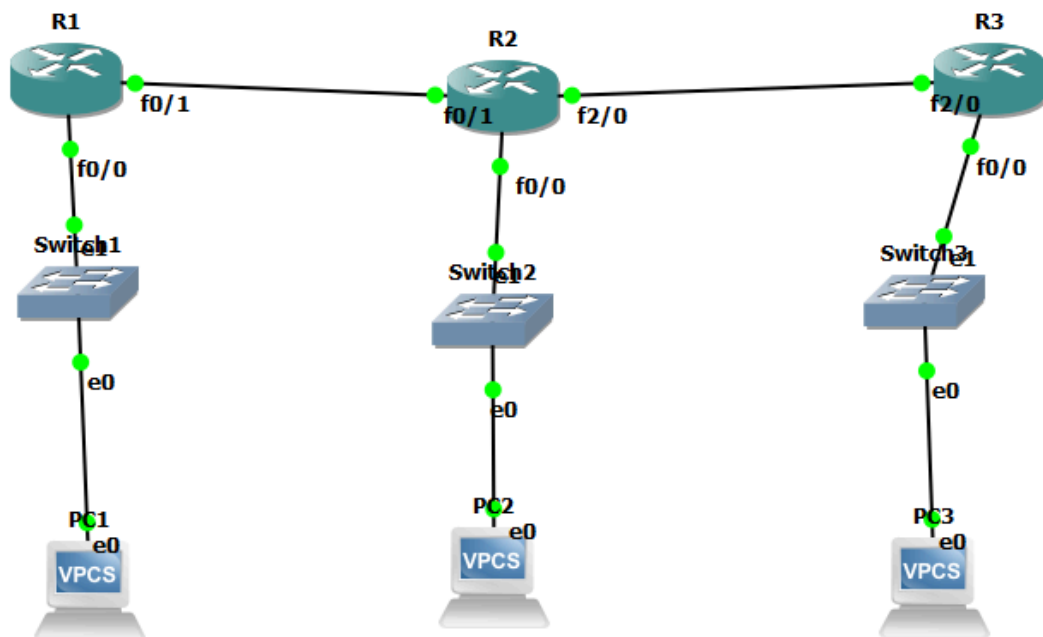
```

PC3> ping 192.168.2.2
84 bytes from 192.168.2.2 icmp_seq=1 ttl=62 time=60.168 ms
84 bytes from 192.168.2.2 icmp_seq=2 ttl=62 time=60.187 ms
84 bytes from 192.168.2.2 icmp_seq=3 ttl=62 time=60.210 ms
84 bytes from 192.168.2.2 icmp_seq=4 ttl=62 time=60.159 ms
84 bytes from 192.168.2.2 icmp_seq=5 ttl=62 time=60.128 ms

PC3> trace 192.168.2.2
trace to 192.168.2.2, 8 hops max, press Ctrl+C to stop
 1  192.168.3.1    15.216 ms  15.178 ms  15.184 ms
 2  192.168.5.1    45.268 ms  45.167 ms  45.120 ms
 3  *192.168.2.2   60.194 ms (ICMP type:3, code:3, Destination port unreachable)

```

## 2. RIP routing



## PC1 to PC2

```
PC1> ping 192.168.2.2
84 bytes from 192.168.2.2 icmp_seq=1 ttl=62 time=180.869 ms
84 bytes from 192.168.2.2 icmp_seq=2 ttl=62 time=60.215 ms
84 bytes from 192.168.2.2 icmp_seq=3 ttl=62 time=60.216 ms
84 bytes from 192.168.2.2 icmp_seq=4 ttl=62 time=60.230 ms
84 bytes from 192.168.2.2 icmp_seq=5 ttl=62 time=60.197 ms

PC1> trace 192.168.2.2
trace to 192.168.2.2, 8 hops max, press Ctrl+C to stop
 1  192.168.1.1   15.320 ms  15.222 ms  15.141 ms
 2  192.168.4.2   45.179 ms  45.152 ms  45.187 ms
 3  *192.168.2.2   60.166 ms (ICMP type:3, code:3, Destination port unreachable)
```

## PC1 to PC3

```
PC1> ping 192.168.3.2
84 bytes from 192.168.3.2 icmp_seq=1 ttl=61 time=165.179 ms
84 bytes from 192.168.3.2 icmp_seq=2 ttl=61 time=90.262 ms
84 bytes from 192.168.3.2 icmp_seq=3 ttl=61 time=90.445 ms
84 bytes from 192.168.3.2 icmp_seq=4 ttl=61 time=90.217 ms
84 bytes from 192.168.3.2 icmp_seq=5 ttl=61 time=90.212 ms

PC1> trace 192.168.3.2
trace to 192.168.3.2, 8 hops max, press Ctrl+C to stop
 1  192.168.1.1   15.229 ms  15.130 ms  15.183 ms
 2  192.168.4.2   45.155 ms  45.229 ms  45.167 ms
 3  192.168.5.2   75.146 ms  75.233 ms  75.182 ms
 4  *192.168.3.2   90.161 ms (ICMP type:3, code:3, Destination port unreachable)
```

## PC2 to PC1

```
PC2> ping 192.168.1.2
84 bytes from 192.168.1.2 icmp_seq=1 ttl=62 time=60.268 ms
84 bytes from 192.168.1.2 icmp_seq=2 ttl=62 time=60.175 ms
84 bytes from 192.168.1.2 icmp_seq=3 ttl=62 time=60.209 ms
84 bytes from 192.168.1.2 icmp_seq=4 ttl=62 time=60.208 ms
84 bytes from 192.168.1.2 icmp_seq=5 ttl=62 time=60.191 ms

PC2> trace 192.168.1.2
trace to 192.168.1.2, 8 hops max, press Ctrl+C to stop
 1  192.168.2.1   15.243 ms  15.148 ms  15.151 ms
 2  192.168.4.1   45.114 ms  45.118 ms  45.104 ms
 3  *192.168.1.2   60.117 ms (ICMP type:3, code:3, Destination port unreachable)
```

### PC2 to PC3

```
PC2> ping 192.168.3.2
84 bytes from 192.168.3.2 icmp_seq=1 ttl=62 time=60.096 ms
84 bytes from 192.168.3.2 icmp_seq=2 ttl=62 time=60.160 ms
84 bytes from 192.168.3.2 icmp_seq=3 ttl=62 time=60.189 ms
84 bytes from 192.168.3.2 icmp_seq=4 ttl=62 time=60.876 ms
84 bytes from 192.168.3.2 icmp_seq=5 ttl=62 time=60.425 ms

PC2> trace 192.168.3.2
trace to 192.168.3.2, 8 hops max, press Ctrl+C to stop
 1  192.168.2.1   15.218 ms  15.182 ms  15.135 ms
 2  192.168.5.2   45.140 ms  45.129 ms  45.157 ms
 3  *192.168.3.2   60.149 ms (ICMP type:3, code:3, Destination port unreachable)
```

### PC3 to PC1

```
PC3> ping 192.168.1.2
192.168.1.2 icmp_seq=1 timeout
192.168.1.2 icmp_seq=2 timeout
84 bytes from 192.168.1.2 icmp_seq=3 ttl=61 time=90.154 ms
84 bytes from 192.168.1.2 icmp_seq=4 ttl=61 time=90.202 ms
84 bytes from 192.168.1.2 icmp_seq=5 ttl=61 time=90.205 ms

PC3> trace 192.168.1.2
trace to 192.168.1.2, 8 hops max, press Ctrl+C to stop
 1  192.168.3.1   15.151 ms  15.211 ms  15.149 ms
 2  192.168.5.1   45.119 ms  45.137 ms  45.144 ms
 3  192.168.4.1   75.115 ms  75.142 ms  75.225 ms
 4  *192.168.1.2   90.204 ms (ICMP type:3, code:3, Destination port unreachable)
```

### PC3 to PC2

```
PC3> ping 192.168.2.2
192.168.2.2 icmp_seq=1 timeout
192.168.2.2 icmp_seq=2 timeout
84 bytes from 192.168.2.2 icmp_seq=3 ttl=62 time=60.175 ms
84 bytes from 192.168.2.2 icmp_seq=4 ttl=62 time=60.197 ms
84 bytes from 192.168.2.2 icmp_seq=5 ttl=62 time=60.153 ms

PC3> trace 192.168.2.2
trace to 192.168.2.2, 8 hops max, press Ctrl+C to stop
 1  192.168.3.1   15.295 ms  15.160 ms  15.152 ms
 2  192.168.5.1   45.116 ms  45.131 ms  45.101 ms
 3  *192.168.2.2   60.126 ms (ICMP type:3, code:3, Destination port unreachable)
```