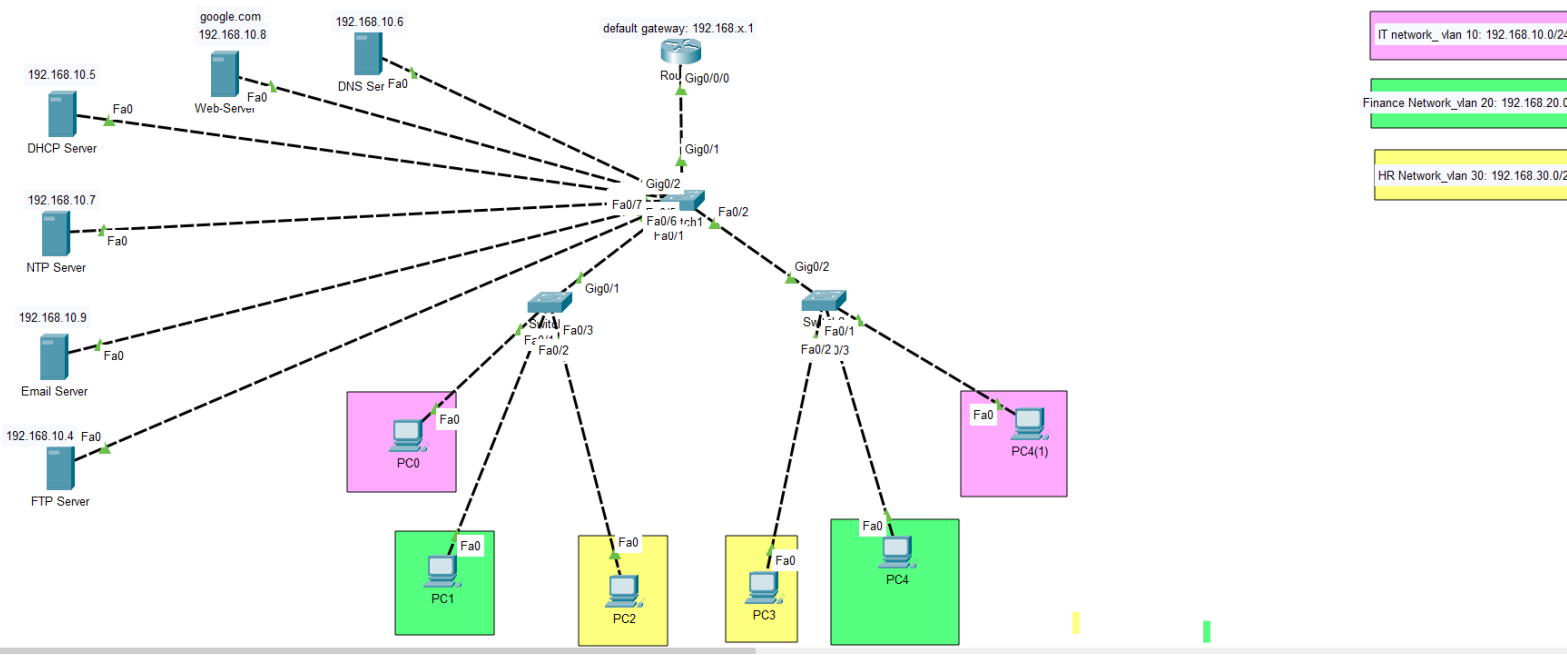
google.com
192.168.10.8
192.168.10.6
default gateway: 192.168.x.1
192.168.10.5
Web-Server
DNS Ser
Fa0
Gig0/0/0
DHCP Server
Gig0/1
Gig0/2
192.168.10.7
Fa0/7
Fa0/2
NTP Server
Fa0/1
Gig0/2
Gig0/1
192.168.10.9
Fa0/3
Fa0/1
Email Server
Fa0/2
Fa0/3
PC0
PC4(1)
192.168.10.4
FTP Server
PC1
PC2
PC3
PC4
IT network_ vlan 10: 192.168.10.0/24
Finance Network_vlan 20: 192.168.20.0
HR Network_vlan 30: 192.168.30.0/2

After configuring the router on stick and inter-VLAN Routing, we need to configure a

DNS and Web server:

1. Choose a server and connect it to any port on the switch

2. Configure port access to join vlan 10
    a. En
    b. Conf t
    c. Int f0/x
    d. Switchport mode access
    e. Switchport access vlan 10

3. Click on the server and choose Desktop
4. Click on IP Cofiguration

5. Set a static IP for the server from vlan 10
    a. IP address: 192.168.10.8
    b. Default Gateway: 192.168.10.1 “Router IP”
    c. Ping on the router from the server to check connectivity

6. Click on Services
7. Choose HTTP and turn it on

8. Add another server with the same steps (1-5) but give it ip address 192.168.10.6
9. Click on services
10. Choose DNS and turn it on
11. Write a name for the HTTP server and its IP address ((google.com , 192.168.10.8))
12. Click Add
13. Check connectivity by:
    a. Open any PC
    b. From Desktop choose Web Browser
    c. Enter the HTTP Server IP or its name to make sure you can connect

Email Server

1. Choose a server and connect it to any port on the switch

2. Configure port access to join vlan 10
    a) En
    b) Conf t
    c) Int f0/x
    d) Switchport mode access
    e) Switchport access vlan 10
3. Click on the server and choose Desktop
4. Click on IP Cofiguration

5. Set a static IP for the server from vlan 10
    d. IP address: 192.168.10.9
    e. Default Gateway: 192.168.10.1 "Router IP"
    f. Ping on the router from the server to check connectivity

6. Click on Services
7. Choose Email and turn it on
8. In Domain name write the Web-Server name: google.com
9. Click Set
10. Add users and passwords for the number of users you want ((user1, user2, user3...))
11. Open Each PC and go to Email
    a. Your Name: ex: Mohammed Taher
    b. Email Address: user1@google.com
    c. Incoming Mail Server: 192.168.10.9
    d. Outgoing Mail Server: 192.168.10.9
    e. User Name: user1
    f. Password: Enter your password
    g. Click Save

DHCP Server

1. Configure IP Helper Address on the gateway, so open the router:
   a. En
   b. Conf t
   c. Int g 0/0.10
   d. Ip helper-address 192.168.10.5
   e. Exit
   f. Int g 0/0.20
   g. Ip helper-address 192.168.10.5
   h. Exit
   i. Int g 0/0.30
   j. Ip helper-address 192.168.10.5

2. Choose a server and connect it to any port on the switch

3. Configure port access to join vlan 10
   f. En
   g. Conf t
   h. Int f0/x
   i. Switchport mode access
   j. Switchport access vlan 10

4. Click on the server and choose Desktop
5. Click on IP Cofiguration

6. Set a static IP for the server from vlan 10
   g. IP address: 192.168.10.5
   h. Default Gateway: 192.168.10.1 “Router IP”
   i. Ping on the router from the server to check connectivity

7. Click on Services

8. Choose DHCP and turn it on
9. For each vlan:

a. Pool Name:	vlan 10	vlan 20	vlan 30
b. Default Gateway:	192.168.10.1	192.168.10.1	192.168.10.1
c. DNS:	192.168.10.6	192.168.10.6	192.168.10.6
d. Start IP Address:	192.168.10.20	192.168.20.20	192.168.30.20

   e. Set Maximum Number of users as you need, for us we chose 50
   f. Click Add
10. Open each end device and make sure they can obtain an IP address through DHCP to make sure everything is working

NTP Server:

1. Choose a server and connect it to any port on the switch

2. Configure port access to join vlan 10
    a) En
    b) Conf t
    c) Int f0/x
    d) Switchport mode access
    e) Switchport access vlan 10

3. Click on the server and choose Desktop
4. Click on IP Cofiguration
5. Set a static IP for the server from vlan 10

j. IP address: 192.168.10.7
k. Default Gateway: 192.168.10.1 “Router IP”
l. Ping on the router from the server to check connectivity

6. Click on Services
7. Choose NTP and turn it on
8. Open the Router
    a. En
    b. Conf t
    c. Ntp server 192.168.10.7

FTP Server:

1. Choose a server and connect it to any port on the switch

2. Configure port access to join vlan 10
    f) En
    g) Conf t
    h) Int f0/x
    i) Switchport mode access
    j) Switchport access vlan 10

3. Click on the server and choose Desktop
4. Click on IP Cofiguration
5. Set a static IP for the server from vlan 10

    a. IP address: 192.168.10.4
    b. Default Gateway: 192.168.10.1 “Router IP”
    c. Ping on the router from the server to check connectivity

6. Click on Services
7. Choose FTP and turn it on
8. Enter a user name and password ((admin,admin))
9. Click Add
10. Check the available services for this user (Write – Read – Delete – Rename -List)
11. Check Connectivity by
    a. Open any PC
    b. From Desktop, choose Command Prompt
    c. FTP 192.168.10.4
    d. Enter username: admin
    e. Enter password: admin
    f. You should be in the FTP now