Assignment-01

Report writing

Group members:

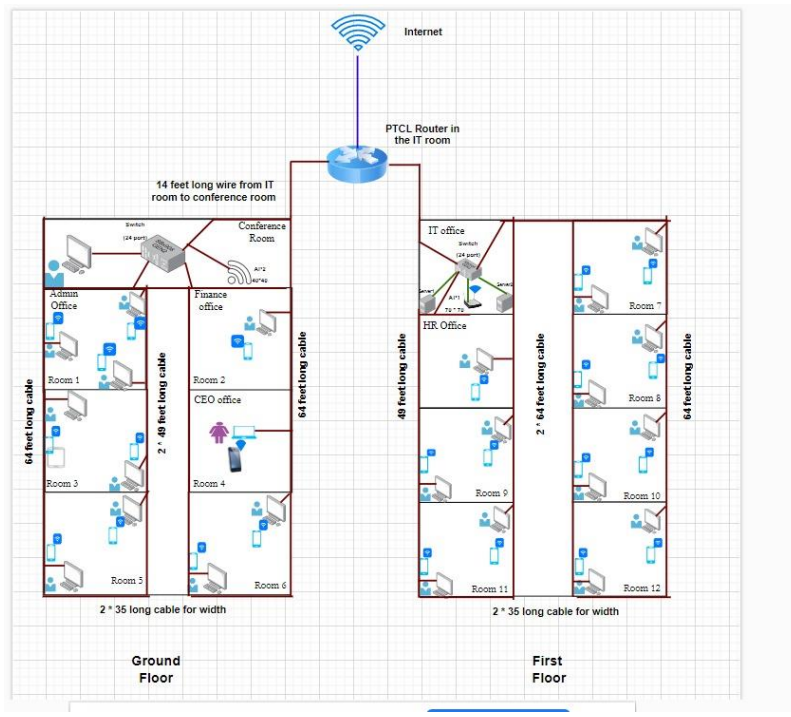Minam Faisal (21i-1901)

Momenah Saif (21i-1909)

Section:

BS (CYS)"T"

Subject:

Computer Networks

NETWORK DIAGRAM:

Explanation:

- We designed the network for the private company while taking into account both the present and future needs of the business to accommodate more personnel.
- The business uses a 25 mbps PTCL internet connection, thus we connected the PTCL device to a router in the IT room. Following that, the internet will be accessible to all networked devices.
- We used two 24-port switches and one 8-port router.
- Each employee must link his computer to the LAN network in order to set up network switches on both floors and provide connectivity to all network ports in the rooms.
- In order to provide WIFI coverage throughout the entire building, we can also set up a wireless access point connected to a switch.
- To accommodate the entire space, an access point with a range of 70 by 70 feet has been put in the IT room and a 40 by 40 feet access point has been built in the conference room.
- Website servers and file servers connected to switch ports are located in the IT room.
- In the conference room, we set up a switch that is linked to a computer that is in charge of creating a presentation about the business.
- As we were required, we used twisted pair cable and RJ-45 connector to connect them. All of the cables sum up to 817 feet.
- We have created 24 ports, which adds up to a lot of free ports that we created in case we need more workers in the future.

Cost Calculation of the Network design:

1. Twisted pair cable:
    - 5* 64 feet long cable in both floors for height.
    - 3* 49 feet long cable in both floors.
    - 4* 35 feet long cable in both floors for width.
    - 15* 14 feet long cable for the rooms.
    - Total cable used: 817 feet's
    - Total cost: 817*10 = RS 8170

2. RJ-45 Connector :
    - Total cost= 2*24*15=RS 720

3. Access point:
    - 40*40=RS 1000
    - 70*70=RS 3000
    - Total cost=RS 4000

4. Switch:
    - Total cost = 2*15000=RS30, 000
5. Router:
    - Total cost=RS 35,000

Total cost of network design=RS 78,890