**Description:**

**Scenario**

Recently there has been a change in the landscape of the local Halifax branch in Hatfield by adding a new floor to the main building. The computer network of the branch needs to be expanded too. The network designer has come with the topology in Figure 1:

Diagram

Description automatically generated Figure 1

As a new network engineer for this branch, you have been asked to assign the IP addresses and configure this small network for full connectivity.

You will need to configure the network according to Figure 1. The IP address is given to the network is 192.168.X.0 /24 where X will be a chosen number. To make sure that everything is tested properly before the implementation, an initial prototype will be built on Packet Tracer. You need to configure all the LAN and WAN interfaces on routers and PCs according to the IP subnetted addresses. When all PCs can ping their default gateways and each other from the old network to the new expansion, then the configuration is implemented correctly.

**Requirements:**

You will need to complete the followings

1. Implement the physical topology using Packet Tracer
2. Assigning correct IPv4 address to the network using subnetting.
3. Create a table for all the IP address allocated:

| **Device** | **Interface** | **IP Address or Network** | **Default Gateway** |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |

1. Configure all the devices (IMPORTANT NOTE: Use either “cisco” or “class” as passwords for your configurations.)
2. The IP address for the calculation of the subnets is 192.168.X.0 /24
3. Provide the screenshot of the Ping result from:
   * 1. 1-Admin computer to the Server
     2. 2-Management computer to accountant
     3. 3-Ping result from Wireless laptop to ISP
     4. 4-Ping result from Admin to ISP