Simple Networking Project #1

Project No. 1 Case Study and Requirements

An investment company wants to design a network in Cisco Packet Tracer to connect 4 departments to each other through the following:

* One switch must be placed on each floor, and the 4 switches must be connected to one router.
* Each floor must contain a number of computers 65/10/5/2, in order, starting from the first floor and ending with the fourth.
* With the specified network 192.168.40.0, all interfaces must be configured with the correct IP addresses, subnet mask, and gateways.
* The network between the Main router and Server should be 172.16.1.0/30
* All devices in the network must be connected using appropriate cables.
* Test communication between devices in all departments.

Technologies Implemented

* Creating a Simple Network using a Router and Access Layer Switch.
* Connecting Networking devices with Correct cabling.
* Connecting the Network using a Router.
* Creating VLANs and assigning ports VLAN numbers.
* Subnetting and IP Addressing.
* Configuring Inter-VLAN Routing (Router on a stick).
* Assigning IP Addresses to Router's interfaces.
* Use OSPF as the routing protocol to advertise routes.
* Test and Verifying Network Communication.