Synderverse

Bruce Wayne aka Batman, has decided to form the Justice League to prevent annihilation of his planet. Until now, he has managed to convince Diana, Arthur, Barry and Victor to join his team in order to stop Steppenwolf from collecting all the motherboxes. But, he needs to set up a network architecture to communicate with his colleagues. As a result, he asked Alfred to design a network that would allow the humans, atlanteans and amazons to communicate again. However, Alfred was occupied with something personal so he decided to ask you to do it in his stead.

Alfred has provided you with all the necessary information, and your job is to design the network infrastructure that would re establish the age of heroes.

The numbers in brackets () specify the population size of the location.

	Wayne Mansion	Atlantis	Amazon	Star Labs	The Daily Planet	Barry's Residence
Wayne Mansion (940)	0					
Atlantis (7082)	523	0				
Amazon (3940)	421	459	0			
Star Labs (509)	104	333	386	0		
The Daily Planet (760)	203	377	368	194	0	
Amnesty Bay (492)	270	486	397	326	248	0

While creating the network infrastructure there are certain restrictions and rules that you need to follow:

- Consider each location as a separate network connected by routers.
- For that you need to choose an appropriate network address and from that create subnets to assign to each location. But remember you can use only half the available ip addresses from the network address i.e 102.1.1.0/24 has 256 possible ip addresses, but you can use only 128 which is half of that.

- Assign ip addresses to all interfaces and devices. You have to show at least two end devices for a location.
- Wayne Mansion (940) has a web server where the entire distribution is operated from
- Establish connections among all the networks with the shortest route possible.
  - Must have at least one floating route.
  - Must have a backup system to handle missing routing entries.
  - Configure half of the network to be routed dynamically.
- Make sure that you can ping from a device in one location to another after completion.

Deliverables
- The network mentioned above should be implemented in the packet tracer, with necessary devices and full configuration.
- After completion you should be able to test the conditions imposed.
- As hardcopies, you will have to submit the followings:
  - Network topology diagram with proper labels
  - The configurations of all the routers that you have implemented.
  - VLSM/Network address table.
  - IP address table