Breaking Bad

Walter White, a high school chemistry teacher, learns he has terminal lung cancer. Desperate to secure the financial future of his family and to satisfy his ego of being an underachiever, decides to use his talent to produce methamphetamine. However, due to his lack of marketing skills, he invites Jesse Pinkman to be his partner. Now, Mr White has asked Jesse to establish networks for their distribution centers, but Jesse wasn't very attentive in class so he needs you to design the network.

Jesse has provided you the list of the locations and their population. Your Job is to design a network infrastructure so that Mr White can conduct his business with ease.

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

	White's Residence	Jane's Apartment	LosPollos Restaurant	LosPollos Factory	DEA Field Office	Eladios Residence
White's Residence (30)	**0**					
Jane's Apartment (15)	**150**	**0**				
Los Pollos Restaurant (432)	**230**	**237**	**0**			
Fring's Residence (879)	**300**	**333**	**124**	**0**		
DEA Field Office (724)	**200**	**195**	**194**	**102**	**0**	
Eladios Residence (233)	**500**	**486**	**397**	**326**	**344**	**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.
- Jane's Apartment (15) 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.
- After completion, make sure that you can ping from a device in one location to another.

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