

## Topic 02

### Harry Potter

Given the following areas and distance, in km, between them.

\*The numbers in brackets specify the population size of the area.

	Platform 9 3/4	Diagon Alley	Gringots	Other shops	Dementors Lounge	Ministry of Magic
Platform 9 ¾ (1236)	0					
Diagon Alley (3000)	31	0				
Gringots (200)	46	15	0			
Other shops (4565)	32	1	21	0		
Dementors Lounge (756)	65	32	329	5	0	
Ministry of Magic (6546)	98	956	89	23	894	0

In addition to the above specification, there's the Hogwarts School of Witchcraft and Wizardry.

- Choose an appropriate network address and using half of the total IPs you took, create subnets to assign to each of the places.
- Assign IP addresses to all the devices and interfaces.
- Hogwarts School of Witchcraft and Wizardry (6546) has a web server to find more magicians.
- 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.
- Showing 2 end devices per network is good enough to represent the whole population.
  - The Ministry of Magic has laptops and printers
- You need to be able to ping each other after all the setups are complete.

### Deliverables

- The network mentioned above should be implemented in 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