Part 1: Router Setup.

For this part, simply follow my instructions.

Part 2: Cisco IOS 100,1 (not 101).

Cisco Internetworking Operating System is the OS used by most Cisco equipment. In what follows, we use basic commands to configure router interfaces.

The router has three main modes: (i) **user exec** mode, very little can be done from here. Possible commands include ping, telnet and enable. The enable command takes you to the next mode. (ii) **privileged mode**, can view almost anything on the device, but cannot change its configuration. Possible commands here include the popular "show running-config" (or "show run") which displays a list of commands that describe the current state of the router (running them on a virgin router will lead to the same configuration as your current router). The "configure terminal" (or "conf t") takes you to the next mode. (iii) **global config** mode(s), this mode, and its sub-modes, allow you to change the configuration of any part of the router.

Typing "?" at the prompt will display the available commands under any mode. Typing "?" anywhere in a command displays available terminations of the command, or available options

1- Start by creating a topology with two VPCs interconnected using a router. Start all devices.
2- Configure the PCs with IP addresses 192.168.1.1 and 192.168.**2.1**. Is PC2 reachable from PC1?
3- Right-click on the router and choose "Console". You might need to press the "return" key. This router starts in privileged mode (indicated by the "#" at the prompt).
4- Switch to config mode (type conf t).
5- Type "interface fastEthernet 0/0", this takes you to the "if" (interface) sub-mode.
6- Type "ip address 192.168.1.254 255.255.255.0", this assigns an IP address to the interface.
7- Type "no shutdown", this activates the interface.
8- Do the same for interface FE0/1, use 192.168.2.254 as IP address.
9- Ping FE0/0 from PC1 and FE0/1 from PC2 does it work? Why?
10- Ping F0/1 from PC1, does it work? Why?
11- In order to set the gateway for PC1, use the command "ip 192.168.1.1 192.168.1.254/24" on the VPC interface.
12- Ping PC2 from PC1, does it work? Why?