Network Topology for a Kitchen Room:

My team has taken into consideration specific requirements while developing a network topology for a kitchen setting, such as staff Wi-Fi, connectivity for IoT devices, and other communication demands. The following elements make up the network topology for a kitchen:

* A switch is a device that has multiple Ethernet ports for wired connectivity and is used to facilitates communication between devices, including access points, security cameras, IoT sensors, and other network equipment.
* Access points (APs): To offer staff devices—such as tablets, and most significantly, IoT devices—wired and wireless access, we have placed APs throughout the kitchen in key locations. They guarantee smooth Wi-Fi connectivity for flexibility and mobility in the kitchen setting.
* IoT devices: A range of IoT devices, including smoke detectors, are positioned throughout the kitchen to carry out tasks including automation, security surveillance, and environmental monitoring.
* Network Cabling: To link devices to switches and access points, utilize Ethernet cables.

Total Setup Cost:

Switch: R6 703.59

Access Points: (R383.08 x 4) = R1 532.32

IoT Devices: R15 801.74

Evaluate the designed network:

Does it fulfil the requirements?

* The network satisfies the criteria by offering staff Wi-Fi in the kitchen and connectivity for IoT devices.

What is good about this setup?

* The network design incorporates both wired and wireless connectivity, providing flexibility and scalability.

What is problematic about this setup?

* The dependability of Wi-Fi access may be impacted by wireless connectivity being exposed to interference or signal deterioration, especially in busy or congested kitchen.

Which part of the network is likely to need the most maintenance? Can this part of the network be installed in a way that facilitates maintenance?

* The ecosystem of IoT devices, yes which includes firmware upgrades, security patches, and troubleshooting, is the section of the network that is most likely to require maintenance.

Which parts, if any, would remain if the company moves to a virtual office environment completely? Why?

* IoT devices, because these devices are deployed throughout the kitchen to perform specific functions such as environmental monitoring, security surveillance, automation, and control.

Describe how your group managed the project load without face-to-face meetings. Describe

advantages, disadvantages, and the lessons you learned from this exercise.