Week 6

 # Task 1. View Wi-Fi Details

In your journal include a screenshot of details of at least one AP, as well as list of information you found.

SSID: Thinkware_7A

BSSID: 04:32:F4:69:5B:7A

First Time: 2022-09-08T21:00:00.000Z

Last Time: 2023-03-15T19:00:00.000Z

Channel: 6

Encryption: wpa2

Quality of Signal: 2

SSID: HUAWEI-E5730-90C9

BSSID: 38:F8:89:4D:90:C9

First Time: 2016-11-14T13:00:00.000Z

Last Time: 2016-11-16T23:00:00.000Z

Channel: 11

Encryption: wpa2

Quality of Signal: 0

SSID: alfresco_public
BSSID: 18:9C:5D:9A:AB:81
First Time: 2014-11-06T09:00:00.000Z
Last Time: 2018-01-19T17:00:00.000Z
Channel: 1
Encryption: wpa2
Quality of Signal: 7

 # Task 2. Use Wi-Fi Access Point

What are the important settings that you should consider when designing a Wi-Fi network? (Do not simply list all settings; rather select some important settings and discuss what you would consider changing them to and why).

SECURITY	
WiFi Encryption	WPA WPA2 WPA3 WPA/WPA2-Enterprise (802.1x)
Network Security	SPI Firewall Access Control IP & MAC Binding Application Layer Gateway
Guest Network	1× 5 GHz Guest Network 1× 2.4 GHz Guest Network

Quality of Service	QoS by Device
Cloud Service	OTA Firmware Upgrade TP-Link ID DDNS
NAT Forwarding	Port Forwarding Port Triggering DMZ UPnP
IPTV	IGMP Proxy IGMP Snooping Bridge Tag VLAN
DHCP	Address Reservation DHCP Client List Server
DDNS	TP-Link NO-IP DynDNS

SSID (Service Set Identifier): This is the name of your Wi-Fi network, and it's important to choose a unique and easy-to-remember name that is not shared with neighbouring networks. It's also recommended to disable SSID broadcasting, which makes the network invisible to devices that are not configured to connect to it.

Security: It's crucial to set up appropriate security measures to protect your network from unauthorized access. This can be done by enabling WPA2 encryption and using a strong password. You can also restrict access to specific devices by enabling MAC address filtering.

Channel and frequency: Wi-Fi operates on different channels and frequencies, and it's important to choose the best channel and frequency that minimizes interference from other nearby networks. You can use tools like Wi-Fi Analyzer to determine the least congested channel and frequency.

Quality of Service (QoS): QoS settings prioritize traffic on your network, which can improve the performance of specific applications or devices. You can assign priority levels to different applications or devices based on their bandwidth requirements.

Guest network: If you have guests who need Wi-Fi access, it's a good idea to set up a separate guest network that is isolated from your main network. This can be done by configuring a separate SSID with its own security settings.

When configuring these settings, it's important to strike a balance between security, performance, and usability.

 # Task 3. Continue Your Project