

Mortimer



DIGITAL INFORMATION TECHNOLOGY (YEAR 10)

WEEK ONE

Amy is on holiday at the countryside. She wants to contact her friends on social media but there is no mobile signal in the house she is staying in. She goes to the local café which advertises a Wi-Fi connection.

What are two possible reasons why she cannot get a mobile signal in the house? [2]

How might she can connect to the internet using the cafes Wi-Fi connection? [2]

What are security issue associated with using the network provided by the café? [2]

Amy is on holiday at the countryside. She wants to contact her friends on social media but there is no mobile signal in the house she is staying in. She goes to the local café which advertises a Wi-Fi connection.

Give Two possible reasons why she cannot get a mobile signal in the house? [2]

There may be no mobile phone mast/antenna in the area if it is very remote. (1)

The signal may be blocked by thick walls/vegetation around the house. (1)

There may be a known problem /maintenance taking place in the area. (1)

Describe one way in which she can connect to the internet using the cafes Wi-Fi connection? [2]

When Amy tries to connect to the Internet (e.g. open a web page or send an email) she will see a list of available Wi-Fi hotspots. (1)

She chooses the one belonging to the café and types in the password provided by café. (1)

Explain one security issue associated with using the network provided by the café? [2]

As it is an open connection, it is relatively easy for a hacker to intercept her communications (1). The transmission is not encrypted so a hacker can read the contents. (1)

Ewan is travelling to work by train. There is no Wi-Fi connection and Ewan needs to connect his laptop to the internet so that he can download some images for an assignment he is working on.

How could he use his mobile to set up an ad hoc network to access the internet? [4]

Occasionally Ewan loses the signal and the internet connection is dropped. Provide a reason why this might happen. [2]

Describe two other issues that may influence Ewan's decision to use an ad hoc network.[4]

Ewan is travelling to work by train. There is no Wi-Fi connection and Ewan needs to connect his laptop to the internet so that he can download some images for an assignment he is working on.

Describe how he can use his mobile to set up an ad hoc network to access the internet? [4]

He can tether his mobile to his laptop using a cable (1). Then he can use his laptop to select his mobile from a list which will be displayed (1) and log on to his mobile phone (1). He can now connect to the internet via the cell network instead of the Wi-Fi network (1).

Occasionally Ewan loses the signal and the internet connection is dropped. Provide two reasons why this might happen. [2]

Interference caused by going through a tunnel or wooded area. (1)

No mobile signal in the area he is passing through. (1)

Describe other issues that may influence Ewan's decision to use an ad hoc network. [4]

Security is an issue over an open network as hackers (1) may be able to access confidential data transmitted between Ewan's laptop to the office. (1)

Using a mobile hotspot may drain his phone battery (1) much faster than usual. (1)

BetterBake is a small online retailer selling kitchen tools and utensils. Their office computers are connected in a local area network with a file server which stores their company data.

How might BetterBake use cloud storage? [2]

Explain three advantages to BetterBake of using Cloud Storage. [3]

BetterBakes management has decided to invest in cloud storage software which will enable members of a team putting together their next catalogue to work together on the document at the same time.

Describe two features of the software which enables this type of collaboration. [4]

BetterBake is a small online retailer selling kitchen tools and utensils. Their office computers are connected in a local area network with a file server which stores their company data.

How might BetterBake use cloud storage? [2]

Cloud storage is provided by a third party in data centres (iCloud) (1) and accessible only via the Internet (1).

Explain three advantages to BetterBake of using Cloud Storage. [3]

The data held in cloud storage will be accessible by all authorised users from anywhere with an Internet connection. (1).

The data will be automatically backed up by the provider, which means the company does not need to have their own offsite backup facilities. (1)

They can pay for just the amount of storage that they need. (1)

BetterBakes management has decided to invest in cloud storage software which will enable members of a team putting together their next catalogue to work together on the document at the same time.

Describe two features of the software which enables this type of collaboration. [4]

Several people can have the document open on their computers at the same time and make edits (1) which are saved automatically in real time (1).

Collaborators can have live chat (1) at the same time to discuss design and layout (1) and suggest additional images or text.