



Oxford Cambridge and RSA

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LEVEL 1/2 CAMBRIDGE NATIONAL IN ICT

R001/01 Understanding Computer Systems

PRE-RELEASE CASE STUDY

JANUARY 2019



INSTRUCTIONS TO TEACHERS

- This pre-release material may be given to candidates at any time after receipt by the Centre.

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- You **must not** take notes into the examination.
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- This document consists of **4** pages. Any blank pages are indicated.

Information for Learners

Supermarkets are large shops that sell a wide range of different products. Unlike more traditional types of shops, staff do not serve individual customers but customers pick the items they want to buy from shelves. (Scenario 1)

Sales people travel around the country to different supermarkets trying to encourage the managers and owners to stock, and sell, the products they represent. (Scenario 2)

Scenario 1

Sami's Supermarkets is a chain of supermarkets in the north of England, owned and run by Sami Hughes.

As each of the supermarkets is self-service, all of the stock in each supermarket is laid out on shelves and in display cabinets. Once customers have chosen the items they wish to buy, they have to exit the shop via a till point. Each till point is staffed by a trained cashier who scans each item and then takes payment from the customer for the total cost of their purchases. Customers can pay by cash or via a debit or credit card.

The data collected at the till points provides Sami with useful data which she analyses to monitor sales. Sami creates a line graph of daily sales so that she can compare how different shops are performing.

Sami also uses the data collected to set sales targets for each shop. These targets are closely monitored and the results are shared with the managers of each shop at a weekly meeting.

Sami's Supermarkets has regular special offers. These are publicised in a four-page colour booklet available in store, as well as on posters in each shop. As customers enter a shop, there is a large digital display that also shows special offers. Special offers are also shown on the Sami's Supermarkets website.

Scenario 2

Jensen is a sales person who covers the north of England for Northern Frozen Foods Ltd. Sami's Supermarkets is one of his clients.

Jensen spends most of the week travelling to clients and so spends a lot of his time in hotels. He uses his smartphone and laptop to keep in contact with his manager and clients when he is not in the office. Northern Frozen Foods Ltd operates a Virtual Private Network (VPN) that is used by Jensen and his fellow sales people to securely access files kept on Northern Frozen Foods Ltd's office and cloud-based servers.

Jensen uses a web-based email service to arrange and confirm appointments with his clients. This email service also includes an online calendar that Jensen uses to keep a record of his appointments. Jensen has shared access to this diary with a secretary who works in the main office. This means that Jensen or the secretary can update his diary with new appointments. Jensen has linked his diary with a calendar app on his phone so that he can check when he has appointments and also receive reminders. The default setting for reminders is 15 minutes before each appointment but Jensen has set this to be 24 hours before they occur.

Jensen spends a lot of time driving from one customer to another and has created digital copies of popular music tracks that he has purchased so that he can listen to them in the car. However, he has recently started making digital copies of the music tracks to pass on to other sales people.

Preparation

In order to prepare for the examination, you should research into the use of technology in a supermarket.

This should include:

- the hardware and software required to create and display advertising materials;
- the advantages and disadvantages of cloud-based storage;
- technologies that can be used to identify a product and its price once the product has been scanned, as well as alternative methods of recording the price of individual goods and calculating an overall bill;
- components of line graphs and how they present data so that patterns and outcomes can be identified;
- threats to website performance.

You should also research into:

- the use of a VPN by staff working remotely to keep in contact with their home office;
- the advantages and disadvantages of using laptops and smartphones to aid business communication;
- cyber-security threats and actions to be taken in response;
- the use of diary management software to manage appointments;
- the hardware, software and storage devices required to make digital copies of music tracks, as well as any legal restrictions that must be considered.

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