



Government of **Western Australia**  
School Curriculum and Standards Authority



# Western Australian Certificate of Education Examination, 2012

## **COMPUTER SCIENCE** Stage 3

### **SOURCE BOOKLET**

**This information relates to questions in Section Two.**

**Refer to this case study to answer Question 29.**

A local theatre group sell tickets to their shows. Currently there are two office staff, one to handle bookings and the other to do general clerical duties. All bookings are done manually.

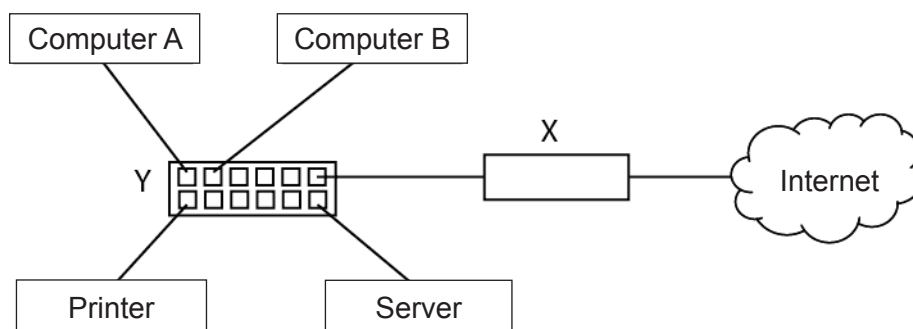
- When customers telephone the theatre office to enquire about tickets to a show, the office assistant asks the customer for the name of the show, date and number of tickets they wish to book. The office assistant then checks the booking sheet for availability.
- If there is availability, the office assistant allocates the seats by colouring the seats in red on the booking sheet.
- The office assistant then asks the customer for payment.
  - If the customer wants to pay by credit card the assistant records the name, card details, the amount and the seat numbers allocated on a credit card slip, which is attached to the order form.
  - If the customer wants to pay by cash the assistant informs the customer that the tickets can be paid for and picked up on the date of the show. The office assistant records the name, amount and seat numbers on the order form with the words 'TO PAY'.
  - The order forms are placed in the ticket order file.
- A week before each show date, the office assistant takes the order forms from the ticket order file and organises them into two piles: credit card purchases and cash purchases.
  - Tickets paid for by credit card are mailed to the customers, and the original order forms and credit card slips are kept in the ticket order file.
  - Tickets still to be paid are placed in an envelope marked with the customers' names and show dates. Two copies of the original order forms are also put in the envelope. These are then put in the ticket pick-up box.
- Customers picking up their tickets on the night of the performance give their name to the office assistant who retrieves the envelopes with the tickets from the ticket pick-up box. The customers then pay cash for the tickets and the original order form is marked 'PAID'.
- The cash is then placed in the envelope and put back into the ticket pick-up box.
- At the end of each week the office assistant totals the cash from the ticket pick-up box and the credit card slips from the ticket order file and prepares to deposit the money at the local bank.
- The bank checks the cash and the credit card slips and gives the office assistant a receipt.

Refer to the table below to answer Question 30.

CustomerID	Surname	Firstname	ShowName	SeatNo	ShowDate	ShowTime	PaymentType
100112	Jones	Mike	Dolly	A1-A5	12/05/2012	20:00	Visa
120325	Smith	Chris	Mamma Mia	B2,B4	18/09/2012	20:00	Mastercard
100112	Jones	Mike	Mamma Mia	C6-C10	18/09/2012	20:00	Visa
123654	Collins	Sue	Dolly	B1-B3	12/09/2012	20:00	Visa
118026	Able	John	Hamlet	A1-A6	12/05/2013	20:00	Mastercard
119691	Jones	Wills	Hamlet	B2,B5	18/09/2012	20:00	Visa
121355	Lovely	Mitchell	Dolly	C6-C11	18/09/2012	20:00	Visa
123020	Telle	Lyn	Mamma Mia	D1-D4	13/09/2012	20:00	Mastercard
124684	Pick	Milly	Mamma Mia	A1-A7	12/05/2014	20:00	Visa
126349	Nollow	Nick	Mamma Mia	B10,B12	18/09/2012	20:00	Visa
128013	Pette	Lilly	Dolly	C1-C4	18/09/2012	20:00	Mastercard
129678	Trevey	Jill	Dolly	B5-B9	14/09/2012	20:00	Visa
131342	Willen	Chris	Hamlet	A11-A18	12/05/2015	20:00	Visa
133007	Mettam	Tim	Hamlet	B3,B7	18/09/2012	20:00	Mastercard
100112	Jones	Mike	Hamlet	C6-C13	15/09/2012	20:00	Visa
126349	Nollow	Nick	Hamlet	B10-B12	15/09/2012	20:00	Visa
128013	Pette	Lilly	Mamma Mia	A1-A9	12/05/2016	20:00	Mastercard

Refer to the diagram below to answer Question 31.

Diagram of the proposed network layout.



Refer to this algorithm to answer Question 32.

Function CalcAdultCost(NumAdult)

    TicketPrice = 25

    CalcAdultCost  $\leftarrow$  NumAdult \* TicketPrice

End Function

Function CalcStudentCost(NumStudent)

    TicketPrice = 15

    CalcStudentCost  $\leftarrow$  NumStudent \* TicketPrice

End Function

Function CalcPensionerCost(NumPensioner)

    TicketPrice = 10

    CalcPensionerCost  $\leftarrow$  NumPensioner \* TicketPrice

End Function

Module CalcDiscount(SubTotal, Discount)

    Code not complete

$\leftarrow$  This is where your code would be inserted

End Module

Module Main

    Input (NumAdult)

    Input (NumStudent)

    Input (NumPensioner)

    AdultCost  $\leftarrow$  CalcAdultCost(NumAdult)

    StudentCost  $\leftarrow$  CalcStudentCost(NumStudent)

    PensionerCost  $\leftarrow$  CalcPensionerCost(NumPensioner)

    SubTotal  $\leftarrow$  AdultCost + StudentCost + PensionerCost

    Call CalcDiscount (SubTotal, Discount)

    TotalCost  $\leftarrow$  SubTotal – (SubTotal \* Discount)

    Print (“The cost of your tickets is”, TotalCost)

End Module

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