Level 2 Create software components using COBOL

(7266/7267-203)

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Assignment guide for Candidates
Assignment B

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Introduction – Information for Candidates

About this document

This assignment comprises part of the assessment for Level 2 Create software components using COBOL (7266/7267-203).

Health and safety

You are asked to consider the importance of safe working practices at all times.

You are responsible for maintaining the safety of others as well as your own. Anyone behaving in an unsafe fashion will be stopped and a suitable warning given. You will not be allowed to continue with an assignment if you compromise any of the Health and Safety requirements. This may seem rather strict but, apart from the potentially unpleasant consequences, you must acquire the habits required for the workplace.

Time allowance

The recommended time allowance for this assignment is **four** hours.

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Candidate instructions

Candidates are advised to read all instructions carefully before starting work and to check with your assessor, if necessary, to ensure that you have fully understood what is required.

Time allowance: four hours

Assignment set up: A scenario is provided for candidates in the form of a company specification for a new product.

This assignment is made up of two tasks

- **Task A** - provides a detailed design specification that should be followed by candidates when developing their program.
- **Task B** - provides presentation criteria that should be followed by candidates when producing their work.

Scenario

A software development company, Fortune Designs, develop software for clients. As a contracted employee of Fortune Designs, you have been asked to create and test a program to read data from a sequential sales transaction file and produce printed output.

Task A

Candidates should use the following detailed specification to fulfil the company's requirements:

In this task you will read sales transaction records from a sequential file and use the records to create printed output for a sales report.

The table below shows the fields in the sales transaction file.

Name	Type	Length
Branch number	Numeric	2
Product number	Numeric	5
Description	Alphanumeric	20
Quantity	Numeric	5
Product Total Value	Numeric	9 including two decimal places

Some example data for the sales transaction file, which you must create, is shown below:

0100010Carver chair	00002000063165
0100015Round table	**00001000156545**
0200010Carver chair	**00004000126330**
0200012Coffee table	**00001000007599**
0300016Coffee table	**00001000015599**

The sales transaction records must be created in ascending order of product number within branch number. The fields in the file are fixed length. There is only one sales transaction record for any particular product at any branch.

The data for the file can be created using a text editor. Each record should be terminated by pressing the ENTER key.

1 Design a layout for a sales report that must show the sales transaction records. The report must contain the following:
   - A heading at the top of each page which includes the branch number and a page number.
   - Each detail line should show the Product number, Description, Quantity and Product Total Value for a product.
   - Each branch must be on a new page.
   - If details for a branch overflow one page then a new heading for that branch must be printed on the new page.
   - The total value of all transactions for a branch should be printed at the end of each branch's sales transactions.
   - The grand total of all sales transactions for all branches should be printed at the end of the sales report.

2 Write the code to read the sales transaction file and produce the sales report.

3 Prepare test data and expected results. Test the program, check the expected results against the actual results and resolve any logical or run-time errors.

4 Provide evidence that the program complies with the specification by producing sales reports and file prints.

5 Print a listing of the code.

Task B

Candidates should follow the criteria below when producing their work:

1 The program conforms to the design specification.

2 The program uses the most appropriate data type(s).

3 Meaningful names are used when declaring variables.

4 The program syntax is consistently indented to aid readability.

5 The program is commented.

Note

- Candidates should produce the following for their assessor:
  - Printed program listing.
  - Sales report layout.
  - Test data and expected results.
  - Evidence that the program works correctly.
- At the conclusion of this assignment, hand all paperwork and removable media to the test supervisor.
- Ensure that your name is on the removable media and all documentation.
- If the assignment is taken over more than one period, all removable media and paperwork must be returned to the test supervisor at the end of each sitting.

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