# Level 3 Develop software using COBOL (7266/7267-303)

## e-Quals
## Assignment guide for Candidates
Assignment C

www.cityandguilds.com/e-quals07
October 2008
Version 1.0

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# Level 3 Develop software using COBOL (7266/7267-303) Assignment C

Introduction – Information for Candidates

## About this document

This assignment comprises part of the assessment for Level 3 Develop software using COBOL (7266/7267-303).

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## 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 **6 hours**.

# Level 3 Develop software using COBOL (7266/7267-303)
Candidate instructions

## Time allowance: 6 hours

## Assignment set up:

This assignment is made up of **three** tasks

- Task A - provides a detailed design specification that should be followed by candidates when developing their program
- Task B - requires the candidate to test the program that they have created and provide documentation
- Task C - provides criteria that should be followed by candidates

## Scenario

You work as a Software Developer for Business Software a company that designs and creates software for clients. You have been asked to design, create and test a program to provide a billing system for an Internet Service Provider company that supplies internet e-mail and connection services to customers.

## Task A

In this task you are required to design and create a program from the design details given.

1 The records are to be held in a relative file where the relative key is the same as the Customer number and the fields are as shown below:

| Name | Type | Length |
|---|---|---|
| Customer number | Numeric | 4 |
| First Name | Alphanumeric | 20 |
| Surname | Alphanumeric | 20 |
| Address1 | Alphabetic | 30 |
| Address2 | Alphanumeric | 30 |
| Address3 | Numeric | 20 |
| Postcode | Alphanumeric | 10 |
| Tel No | Alphanumeric | 12 |
| Service Type | Alphabetic | 1 |

2 The program should display a menu similar to the following:

MENU
1 Add a record
2 Amend a record
3 Delete a record
4 Print monthly invoices
5 QUIT

3 An EVALUATE statement must be used for the menu option input.

4 The INVALID KEY clause must be used when accessing the relative file.

5 Arrays must be used to hold the data for the Service Type details as shown below:

| Service Type | Monthly Price | Description |
|---|---|---|
| A | 8.99 | Dialup |
| B | 15.99 | Dialup Anytime |
| C | 19.99 | Broadband |
| D | 25.99 | Broadband Extra |
| E | 35.99 | Broadband Plus |

6 Use a SEARCH statement to find the Service Type details from the arrays when producing the monthly invoices.

7 Use a STRING statement to join the First Name and Surname with only one space between them when inserted on the monthly invoice.

8 Tax (VAT) at 17.5% should be added to the monthly price when producing the invoice.

9 Design the screen and print layouts for the program. The stationery for the invoices has a preprinted header containing the company details so the date, customer details and service details should be started after line 12.

10 Create the design for the program.

11 Write the code to implement the design.

## Task B

In this task you are required to test the program you have created and provide documentation.

1 Prepare a test plan, test data and expected results.

2 Test the software; check the expected results against the actual results keeping a log for each test which identifies any discrepancies between actual and expected results and records any amendments made to resolve any logical or run-time errors found.

3 Provide evidence that the program complies with the specification eg printed output.

4 Print a listing of the code.

## Task C

*Candidates should follow the criteria below when producing their work:*

1 The program conforms to the design specification.

2 The program is structured.

3 Meaningful names are used for user-defined elements.

**Note**

- Candidates should produce the following for their assessor:
    - design documentation
    - printed program listing
    - test plan, test data and expected results and test log
    - evidence of testing eg printed output
- At the conclusion of this assignment, hand all paperwork and removable storage media to the test supervisor.
- Ensure that your name is on the removable storage media and all documentation.
- If the assignment is taken over more than one period, all removable storage media and paperwork must be returned to the test supervisor at the end of each sitting.

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