Level 3 Designing and creating relational databases
(7266/7267-047)
e-Quals

Assignment guide for Candidates
Assignment A
About City & Guilds
City & Guilds is the UK’s leading provider of vocational qualifications, offering over 500 awards across a wide range of industries, and progressing from entry level to the highest levels of professional achievement. With over 8500 centres in 100 countries, City & Guilds is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done.

City & Guilds Group
The City & Guilds Group includes City & Guilds, ILM (the Institute of Leadership & Management) which provides management qualifications, learning materials and membership services, NPTC which offers land-based qualifications and membership services, and HAB (the Hospitality Awarding Body). City & Guilds also manages the Engineering Council Examinations on behalf of the Engineering Council.

Equal opportunities
City & Guilds fully supports the principle of equal opportunities and we are committed to satisfying this principle in all our activities and published material. A copy of our equal opportunities policy statement is available on the City & Guilds website.

Copyright
The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute 2008 and may not be copied, reproduced or distributed without prior written consent.

However, approved City & Guilds centres and learners studying for City & Guilds qualifications may photocopy this document free of charge and/or include a locked PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching learners working towards a City & Guilds qualification, or for internal administration purposes
- learners may copy the material only for their own use when working towards a City & Guilds qualification

The Standard Copying Conditions on the City & Guilds website also apply.

Please note: National Occupational Standards are not © The City and Guilds of London Institute. Please check the conditions upon which they may be copied with the relevant Sector Skills Council.

Publications
City & Guilds publications are available on the City & Guilds website or from our Publications Sales department at the address below or by telephoning +44 (0)20 7294 2850 or faxing +44 (0)20 7294 3387.

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds’ products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.

City & Guilds
1 Giltspur Street
London EC1A 9DD
T +44 (0)20 7294 2800
F +44 (0)20 7294 2400
www.cityandguilds.com
learnersupport@cityandguilds.com
About this document
This assignment comprises all of the assessment for Level 3 Designing and creating relational databases (7266/7267-047).

Health and safety
You are responsible for maintaining the safety of others as well as your own. You are asked to work safely at all times.

You will not be allowed to continue with an assignment if you compromise any of the Health and Safety requirements.

Time allowance
The recommended time allowance for this assignment is two and a half hours.
Time allowance: Two and a half hours.

The assignment:

This assignment is made up of five tasks

- Task A - Setup and database creation
- Task B - Create an input form
- Task C - Editing Databases and Undertaking Information Retrieval
- Task D - Undertaking Information Retrieval and developing Reports for Output

Scenario

You are consulting to a Health & Fitness Club. Your client has been using a paper system for all of their membership management. Part of your job role is to design the membership and facilities databases, test sample data and you have been asked to computerise the information retrieval using reports and queries.

You have been supplied with text files by the systems analyst containing all the necessary input data, including field headings and you must now create a relational database to store the membership information. You will need to use database facilities to retrieve and select accurate information from the database in various formats.

You will need to save your work in appropriately named files and folders and you will need to present the retrieved information in a suitable format so the systems analyst can check that the design fulfils the client requirements.

Read all of the instructions carefully and complete the tasks in the order given.

Task A – Setup and database creation

1. Create a new folder in your work area or on removable media with the name HEALTH.

Copy the three text files, provided by your assessor, to the HEALTH folder:

- Members.txt
- Bookings.txt
- Categories.txt

Continued over...
2 Open a database application and create a new database in your HEALTH folder.

The filename should be H&F1- followed by your initials, for example H&F1-JF.

3 Import the data file Members.txt into a new table and name it tblMembership.

The data includes a header row, it is comma delimited, and text is enclosed in quotes (".

4 Carry out the following actions for tblMembership:

- Set the data type for the Paid field as logical.
- Set the field length for MemberID to length 7.
- Set the Postcode field to length 8.
- Set a primary key using MemberID.

5 Import the data file Bookings.txt into a table and name it tblCourtBookings.

The data includes a header row, it is comma delimited and text is enclosed in quotes (".

6 Carry out the following actions for tblCourtBookings:

- Set the Court field to integer.
- Set a joint primary key using BookingNo and MemberID.
- BookingNo should be an automatically generated number.

Validation of the data is required in the tblCourtBookings:

- Set up validation for the Court field that accepts only whole integers between 1 and 4 inclusive as valid entries.
- Set the default value as 0
- Set the validation message as: Enter as a court number between 1 and 4 inclusive.
- Set the Lookup for the court field to List Box with the Row Source Type as Value List and the Row Source as the values 1 to 4 inclusive.

7 Import the data file Categories.txt into a table and name it tblMembershipCategories.

The data includes a header row, it is comma delimited and text is enclosed in quotes (".

8 Carry out the following actions for tblMembershipCategories:

- Set the data type for the AnnualFee field as currency (to local symbol) to 2 decimal places.
- Set the primary key to CategoryNo.
9 Set suitable relationships between the tables:
   - tblMembership
   - tblCourtBookings
   - tblMembershipCategories

Backup your database at this point to H&F1-xx-V1

Task B – Create an input form

1 Create a data input form to allow users to input data to the tblCourtBookings.
   The form needs to include all the fields from the Court Bookings table and the Lname and Fname from Membership table.

   Edit the design of your form to reflect the lookup required on the court field. Save the form as frmBookings. Check that the same validation rule as the table works.

   Adjust the size of the form header to allow the insertion of a heading on the form. Type the heading as BOOKINGS and format the heading to a 24 pt Sans Serif bold font with the font colour set to red.

   In tblCourtBookings table set the properties for MemberID, Date, Time and Day to be an appropriate data type and field length ensuring that none of the original data is lost. Reflect your changes along with any input masks in frmBookings.

2 Make any necessary changes to the form design to improve the overall appearance.
   Set all labels and text boxes to be a 12pt Sans Serif font.
   Set the label text colour to blue and right align the labels and associated text.
   Ensure that all textural boxes are left aligned, numeric boxes are right aligned and all input boxes are set to the same height.
   For dates and times create input masks and format all text to be capitalised.

3 Test frmBookings by entering the following data:

<table>
<thead>
<tr>
<th>Court No.</th>
<th>Member ID</th>
<th>Time</th>
<th>Date (dd/mm/yyyy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>DS104</td>
<td>18:00</td>
<td>25/mm/yyyy</td>
</tr>
<tr>
<td>2</td>
<td>TA53</td>
<td>19:00</td>
<td>24/mm/yyyy</td>
</tr>
<tr>
<td>3</td>
<td>DE183</td>
<td>08:00</td>
<td>25/mm/yyyy</td>
</tr>
<tr>
<td>3</td>
<td>IH196</td>
<td>09:00</td>
<td>25/mm/yyyy</td>
</tr>
<tr>
<td>4</td>
<td>GS167</td>
<td>16:00</td>
<td>27/mm/yyyy</td>
</tr>
<tr>
<td>1</td>
<td>PM181</td>
<td>19:00</td>
<td>24/mm/yyyy</td>
</tr>
</tbody>
</table>

   Where mm/yyyy is the current month and year. The day needs to be worked out according to the current month and year. Backup your database at this point to H&F1-xx-V2.
Task C - Editing Databases and Undertaking Information Retrieval

1. Create a query to show details of members whose renewal date is less than or equal to 04/04/2008, have not yet paid and whose interests include Water Aerobics.

   Include all fields from the tblMembership and tblMembershipCategories in the query, delete any duplicate fields.

   Save the query as qryUnpaidMarch.

2. Modify the query by inserting a column between the DOB field and the Interests field and add a calculated field called Age as of 31/12/YYYY to the design of qryUnpaidMarch.

   Create an expression in the field Age that calculates the age as of 31/12/YYYY (Current Year) of each member by taking the DOB from the current date using a function.

   Save the query as qryUnpaidMarch-V2.

3. Create a report in landscape form based on qryUnpaidMarch-V2 with the centred heading UNPAID WATER AEROBICS FEES FOR MARCH.

   Include only the following fields in the report (presented in columns in this order):
   - CategoryType
   - Fname, Lname
   - DOB
   - Age as of 31/12/YYYY
   - Interests
   - RenewalDate
   - Annual Fee
   - Paid

   Make sure all information is fully displayed.

4. Group the report by CategoryType only, with the records in ascending order of Lname.

5. Add a field that calculates the total of the annual fees for the members and place it in the report footer. Align the amount under the Annual Fee column.

   The label of the field needs to be TOTAL FEES OWING.

   Format the values in the field as currency (local symbol) to 2 decimal places.

6. Using the same query, add a field that calculates the total number of members that have not yet paid and place it in the report footer, starting at the left margin.

   The label of the field should be Members that have not yet renewed their membership.
In the report amend the field names Fname and Lname so that they read First Name and Last Name.

Amend all the other two word field headings so that there is a space between the two words.

Make the font size of the report footer 8 point and adjust the size of the boxes so that all the data is fully displayed.

Place your name, today’s date in a page footer and save the report as rptUnpaidMarch.

Backup your database at this point to H&F1-xx-V3.

Task D - Undertaking Information Retrieval and developing Reports for Output

Create a query to show details of members who have a court booking on 25/MM/YYYY or 26/MM/YYYY in Court 3. Include all fields from the tblMembership and tblCourtBookings in the query.

Delete any duplicate fields from the second import table.

Save the query as qryCourtClosure.

Create a mailing label report based on qryCourtClosure.

The label size should be approximately 52 mm x 70 mm and should fit 2 across an A4 portrait page.

The font should be 12 point sans serif and the text should be black.

Fields to be included are:

- Title
- First Name
- Last Name
- Address1
- Address2
- Address3
- Postcode.

Add two blocks on the last lines showing Day, Date and Time, Court.
Continued over...

Sort the labels by **Last Name**.

Save the report as **rptLabelsCourtClosure**.

Backup your database at this point to **H&F1-xx-V4**.

4 Check your database, save **H&F1-xx** and exit the application.

When you have finished working:

- Sign each document above your name and label all removable storage media with your name.
- Hand all paperwork and removable storage media to your assessor.

If the assignment is taken over more than one period, all paperwork and removable media must be returned to the test supervisor at the end of each sitting.

**End of assignment**