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**7BUIS030W Data System Concepts and Fundamentals**

**Tutorial-07 ,2020**

**Tutorial 07 Case Study**

Carefully consider the **rectified** logical ERD shown below for the ***Banking*** organisation**.**

Branch

branch\_id {PK}

street\_address

postal\_code

city

state\_province

country

Staff

staff\_id {PK}

first\_name

last\_name

email

phone\_number

hire\_date

salary

commission\_pct

branch\_id {FK}

job\_id {FK}

Job

job\_id {PK}

job\_title

min\_salary

max\_salary

has

1..1

0..\*

1..1

0..\*

works in

**Access the MySQL RDBMS through phpMyAdmin**

On Blackboard, in the *‘Tutorials’* section, open the *‘Guide to Access MySQL through phpMyAdmin’* and follow all the instructions.

**Tutorial 07 Question 01**

1.1. In a Word document or a notepad file, write the SQL Code to create the **Branches, Jobs** and **Staffs** tables for the MySQL RDBMS. Carefully think of the data type for every column, whether a column can be left empty or not and whether additional constraints need to de defined. Also, carefully define your primary keys and foreign keys.

1.2. Save your file, then copy and paste your code in the SQL area of phpMyAdmin (second tab) and run it by clicking on “Go”. You should see your successfully created tables appearing in the list of tables on the left.

**Tutorial 07 Question 02**

Populate each table (Staff, Branch and Job) as per the data provided below.For this part of the tutorial use SQL insert into command. Copy each SQL INSERT codes for each table from the notepad++ and paste them in the SQL command window of your default database in the PHPMyAdmin server.

**Table: Branch**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Branch ID** | **Street Address** | **Post Code** | **City** | **State Province** | **Country** |
| B100 | 2 Nice Road | N2 7TH | London | Greater London | UK |
| B200 | 23 Pretty Road | BS1 8FD | Bristol | Bristol County | UK |
| B300 | 26 Great Street | BN1 4BF | Brighton | Sussex | UK |
| B400 | 143 Lovely Road | CB1 2NV | Cambridge | Cambridgeshire | UK |

**Table : Job**

|  |  |  |  |
| --- | --- | --- | --- |
| **Job ID** | **Job Title** | **Minimum Salary** | **Maximum Salary** |
| 901 | Managing Director | 75000 | 125000 |
| 902 | Clerical Administrator | 28000 | 41000 |
| 903 | System Analyst | 45000 | 95000 |
| 904 | Security Officer | 30000 | 55000 |
| 905 | Network Operator | 37000 | 68000 |
| 906 | Data Entry Operator | 24000 | 50000 |
| 907 | Insurance Rep | 30000 | 60000 |

**Table : Staff**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Staff ID** | **First Name** | **Last Name** | **Email** | **Phone Number** | **Hire Date** | **Salary** | **Percentage Commission** | **Branch** | **Job** |
| 1001 | Jim | King | jk@firm.com | 02079111001 | 2011-01-21 | 98000 |  | B100 | 901 |
| 1002 | Jane | Queen | jq@firm.com | 02079111002 | 2012-02-05 | 99000 |  | B200 | 901 |
| 1003 | Jen | Probert | jp@firm.com | 02079111003 | 2014-11-23 | 79000 |  | B100 | 903 |
| 1004 | Mike | Brent | mb@firm.com | 02079111004 | 2013-10-06 | 51000 |  | B200 | 904 |
| 1005 | Nadia | Tamsa | nt@firm.com | 02079111005 | 2013-10-08 | 62000 |  | B300 | 905 |
| 1006 | Mo | Ali | ma@firm.com | 02079111006 | 2015-11-24 | 41000 | 0.15 | B400 | 907 |
| 1007 | Dannie | Kolova | dk@firm.com | 02079111007 | 2016-05-15 | 38000 | 0.25 | B100 | 907 |
| 1008 | Manu | Ogoda | mo@firm.com | 02079111008 | 2017-08-12 | 33000 | 0.35 | B200 | 907 |
| 1009 | Marc | Daniel | md@firm.com | 02079111009 | 2014-01-02 | 35000 | 0.35 | B300 | 907 |
| 1010 | Louise | Matos | lm@firm.com | 02079111010 | 2017-11-05 | 53000 |  | B200 | 905 |
| 1011 | Ram | Binghi | rb@firm.com | 02079111011 | 2012-03-30 | 35000 |  | B100, | 906 |
| 1012 | Tim | Norm | tn@firm.com | 02079111012 | 2018-03-31 | 48000 |  | B300 | 906 |
| 1013 | Alex | Smart | as@firm.com | 02079111013 | 2012-03-30 | 39000 |  | B100 | 905 |
| 1014 | Bruno | Silba | bs@firm.com | 02079111014 | 2014-05-08 | 37000 |  | B400 | 905 |
| 1015 | Laurie | Kaldav | lk@firm.com | 02079111015 | 2017-08-11 | 34000 |  | B100 | 902 |
| 1016 | Sophie | Lanou | sl@firm.com | 02079111016 | 2017-08-19 | 34000 |  | B200 | 902 |
| 1017 | Yann | Taylor | yt@firm.com | 02079111017 | 2018-09-03 | 44000 |  | B300 | 904 |
| 1018 | Sam | Tring | st@firm.com | 02079111018 | 2018-09-05 | 47000 |  | B200 | 903 |
| 1019 | Don | Matos | dt@firm.com | 02079111019 | 2017-10-04 | 49000 |  | B300 | 903 |
| 1020 | Dan | Mitch | dm@firm.com | 02079111020 | 2019-01-14 | 35000 |  | B300 | 902 |
| 1021 | Jean | Novski | jn@firm.com | 02079111021 | 2019-02-13 | 38000 |  | B200 | 906 |
| 1022 | Malia | Mundi | mm@firm.com | 02079111022 | 2019-07-15 | 43000 |  | B300 | 906 |
| 1023 | Kurt | Thorpe | kt@firm.com | 02079111023 | 2019-07-15 | 44000 |  | B400 | 906 |