**Friends & Hobbies**

**Practical**

Open the MySql database and create two new tables to store details about friends and their hobbies.

(Remember to type and save the commands into a notepad++ file and copy them to the command window to test them.)

**Friend Table**

|  |  |
| --- | --- |
| Field Name | Data Type |
| Friend\_id | Number |
| Name | Text |
| Address | Text |
| Telephone | Text |

**Hobbies Table**

|  |  |
| --- | --- |
| Field Name | Data Type |
| Friend\_id | Number |
| Hobby | Text |

***Enter the following commands***

**drop table if exists hobbies,friend;**

This will check the test database to see if the tables already exist. (they could have been created by a previous user). If either table is found they will be deleted from the database.

**create table friend ( friend\_id int NOT NULL,**

**name varchar(20),**

**Address varchar(20),**

**Telephone varchar(20),**

**PRIMARY KEY (friend\_id));**

This will create the friend table with a null and primary key constraint set on the friend\_id field. This ensures the friend\_id field is unique and can’t be empty.

**create table hobbies ( friend\_id int NOT NULL,**

**hobby varchar (20) NOT NULL,**

**PRIMARY KEY (friend\_id, hobby),**

**FOREIGN KEY (friend\_id) REFERENCES friend(friend\_id));**

This will create the hobbies table with the null and primary key constraints set on both fields. This ensures the combination of both fields is unique and can’t be empty. The foreign key constraint is set for the friend\_id field. This relates the hobby table to the friend table through the friend\_id field.

**REFERENTIAL INTEGRITY NOTE**

The friend table is known as the parent table and the hobbies table is known as the child table.

Records must be entered into a parent table before records can be entered into a child table.

When dropping a table that is a parent, all child tables of that table must be dropped first.

Enter the following records using the insert command

***Friend Table***

| **Friend\_ID** | **Name** | **Address** | **Telephone** |
| --- | --- | --- | --- |
| 1 | Joe Bloggs | 2 Old Rd | 04273619 |
| 2 | Fred Bloggs | 21 New Rd | 04134816 |
| 3 | Sam Smith | 10 High St | 04291062 |
| 4 | Lucy Murphy | 37 Old Rd | 04274356 |
| 5 | John Clarke | 29 High St | 04275674 |
| 6 | Frank Smith | 12 Chapel St | 04123432 |
| 7 | Mary Clarke | 14 New Rd | 04267545 |
| 8 | Sarah Smith | 12 Chapel St | 04123432 |
| 9 | Kevin Jones | 34 High St | 04267564 |
| 10 | Laura King | 23 New Rd | 04123423 |
| 11 | Bill Daly | 45 Chapel St | 04234323 |
| 12 | Jane Smyth | 11 Chapel St | 04198783 |
| 13 | Jim Byrne | 61 New Rd | 04165215 |
| 14 | Ciara Smyth | 11 Chapel St | 04198783 |
| 15 | Ben Jones | 34 High St | 04267564 |

Hobbies Table

| **Friend\_ID** | **Hobby** |
| --- | --- |
| 1 | golf |
| 1 | pool |
| 1 | snooker |
| 2 | football |
| 2 | snooker |
| 3 | golf |
| 3 | running |
| 3 | swimming |
| 4 | swimming |
| 4 | tennis |
| 5 | football |
| 6 | pool |
| 6 | squash |
| 7 | running |
| 8 | swimming |
| 8 | tennis |
| 9 | football |
| 9 | golf |
| 9 | tennis |
| 10 | football |
| 10 | squash |
| 11 | swimming |
| 12 | running |
| 12 | squash |
| 12 | swimming |
| 13 | football |
| 13 | golf |
| 13 | snooker |
| 14 | swimming |
| 14 | tennis |
| 15 | football |

Use the following commands to retrieve details from the database. Make a note of what each command is used for.

**select \* from friend;**

**select friend.name from friend join hobbies using (friend\_id);**

**select friend.name from friend join hobbies using (friend\_id) where hobby = "golf";**

**select friend.name, friend.address from friend join hobbies using (friend\_id) where hobby = "football";**

**select friend.name, friend.address from friend join hobbies using (friend\_id) where address like = "%old%";**

**select distinct friend.name, friend.address from friend join hobbies using (friend\_id) where name like "%Byrne";**

**select \* from friend join hobbies using (friend\_id) where hobby = "golf";**

**select \* from friend join hobbies using (friend\_id) where name = "Joe Bloggs" and hobby = "snooker";**

***Create and make a note of commands to retrieve the following***

|  |
| --- |
| 1. Lucy Murphy’s details |
| 1. Friends who have surname Jones |
| 1. Friends who live on Chapel St |
| 1. Friends who live in the 042 area |
| 1. Bill Daly’s address and phone no |
| 1. Friends with surname Bloggs and live in the 042 area |
| 1. Friends with surname Smith (Smyth) |

|  |
| --- |
| 1. Friends with surname King or live on Chapel St |
| 1. Friends who play squash |
| 1. Friends who live in the 042 area and play football |
| 1. Friends with surname Clarke who swim |
| 1. Friends who play tennis or golf |
| 1. Friends who live on chapel street who play tennis or swim |
| 1. Name and address of friends who like to run or play pool |