**Explore a database**

Introduction

For this activity you will need:

* DB Browser for SQLite
* A **copy** of the dbMusic.db file which is located in Altillo Virtual under “Part 1 - Database Essentials” folder. You need to download this file to your computer and move it to your Documents/ComputerScience/Databases folder.
* Once you have completed the worksheet, save it as a PDF file and upload it to Altillo Virtual Assignment 3.1.

**If you are not sure about any of these instructions please ask for help from your teacher.**

Task Investigate the tables

**Step 1**

Look at the data structure of the tblDownloads table. State whether the fields listed below are primary or foreign keys.

|  |  |
| --- | --- |
| **Field** | **Primary Key / Foreign Key** |
| DownLID | Primary |
| TrackID | Foreign |
| MemberID | Foreign |

**Step 2**

Choose to **modify** the tblTracks table. Paste the SQL code for the table below:

|  |
| --- |
| CREATE TABLE "tblTracks" (  "TrackID" INTEGER NOT NULL UNIQUE,  "Title" TEXT,  "Artist" TEXT,  "Genre" TEXT,  PRIMARY KEY("TrackID" AUTOINCREMENT)  ); |

**Step 3**

Choose to **modify** the tblDownloads table. What is the data type used for data and time?

|  |
| --- |
| TEXT |

Task Explore the members table.

**Step 1**

Go to the **browse data** tab and select the tblMembers table from the drop down list.

**Step 2**

How many **records** does the **members table** have?

|  |
| --- |
| 55 |

**Step 3**

What is the **name** of the **39th member**?

|  |
| --- |
| Pepper Wynnie |

**Step 4**

What is the **email address** for **Peony Winifred**?

|  |
| --- |
| khc@mail.co.uk |

**Step 5**

How many **members** have a **surname** that begins with the letter B?

|  |
| --- |
| 11 |

**Step 6**

How many **fields** does the members table have?

|  |
| --- |
| 5 |

Task Explore the downloads table

**Step 1**

Go to the tblDownloads table. How many **records** does the **downloads** table have?

|  |
| --- |
| 1000 |

**Step 2**

How many **fields** does the **downloads** table have?

|  |
| --- |
| 5 |

**Step 2**

What structure has been used to store the data in the **date** field?

|  |
| --- |
| YYYY-MM-DD |

**Step 3**

What structure has been used to store the data in the **time** field?

|  |
| --- |
| HH-MM |

**Step 4**

How many **downloads** of **track 13** have there been?

**Tip:** Use the filter at the top of the table data

|  |
| --- |
| 14 |

**Step 5**

What is the title of **track 13**?

**Tip:** you will need to navigate to the tracks table

|  |
| --- |
| Cheese pops |

Explorer task .

**Step 1**

Go to the **Execute SQL** tab and enter the SQL code below:

|  |
| --- |
| SELECT \*  FROM tblDownloads  WHERE date BETWEEN 2011 AND 2013; |

**Step 2**

Click on the play icon to execute the code. Take a look at what is returned by the SQL code.

**Step 3**

Modify the code to search for data from different years.

This resource is obtained from [ncce.io](http://ncce.io/dsql-1-a0-w), and it has been modified for this lesson.