

Raspberry Pi

# Explore a database

## Introduction

For this activity you will need:

- DB Browser for SQLite
- A **copy** of the dbMusic.db file which is located here: **TEACHER ADD THE LOCATION HERE.**

### Task Investigate the tables

#### Step 1

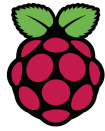
Look at the data structure of the **tblDownloads** table. State whether the fields listed below are primary or foreign keys.

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

#### 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)  
);
```



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### 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

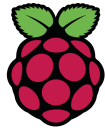
What is the **name** of the **39th member**?

Pepper Wynn

### Step 4

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

khc@mail.co.uk



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### 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

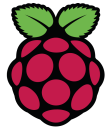
### Step 2

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

5

### Step 2

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



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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

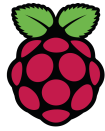
Cheese pops

## 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;
```



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## 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.

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