Lab 3

The 2 tables, Artist and CD, presented below will be used throughout this exercises

```
SELECT * FROM Artist;
```

artID	artName
6	Animal Collective
3	Deadmau5
7	Kings of Leon
4	Mark Ronson
5	Mark Ronson & The Business Intl
8	Maroon 5
2	Mr Scruff
1	Muse

```
SELECT * FROM CD;
```

cdID	artID	cdTitle	cdPrice	cdGenre	cdNumTracks
1	1	Black Holes and Revelations	9.99	Rock	NULL
2	1	The Resistance	11.99	Rock	NULL
3	2	Ninja Tuna	9.99	Electronica	NULL
4	3	For Lack of a Better Name	9.99	Electro House	NULL
5	4	Version	12.99	Pop	NULL
6	5	Record Collection	11.99	Alternative Rock	NULL
7	6	Merriweather Post Pavilion	12.99	Electronica	NULL
8	7	7 Only By The Night	9.99	Rock	NULL
9	7	Come Around Sundown	12.99	Rock	NULL
10	8	Hands All Over	11.99	Pop	NULL

Tasks

1. Write the SQL necessary to represent the tables and data presented above. **Notes**,
    a. You are not required to perform any additional table/data design.
    b. Your output for the queries
        i. SELECT * FROM Artist;
        ii. SELECT * FROM CD;

        Should match that presented above.
    c. You are required to provide sensible data types, attributes and constraints for each column.
    d. The exact constraints and data types have not been and will not be specified here. Rather you should assess the data as presented and use your judgement to determine these properties according to your real world knowledge and design experience.

2. Write the SQL necessary to answer these queries:
    a. List the titles and prices of CDs in order of price from highest to lowest.
    b. List the Artist Name, Titles and the Price of CDs in alphabetical order by artist name. The Price of the CD should be returned in a column called 'Full Price' with tax (20%) included - the CD price in the database is not inclusive of tax.
    c. List the titles, genres and prices CDs in alphabetical order by genre, then by price from the highest price to the lowest one.

3. Write the SQL necessary to answer these queries:
    a. Find the lowest price of any CD. The result should be presented in a column named 'Cheapest CD'
    b. Identify the difference between the most expensive and cheapest CD. The result should be presented in a column named 'CD Price Range'.
    c. Find the number of CDs costing 9.99. The result should be presented in a column named 'Count of £9.99 CD's'
    d. Find the title of the most expensive Electronica CD(s).
    e. Find the number of different Prices in the CD table.
    f. List all the information about the cheapest (lowest priced) CDs.