

SQL Assignment Part 2 (PPT 2)

Page 1-6 – Info, no actions

Page 7 & 8 Execute script, check ‘world’ exists.

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'Schemas' tree with the 'world' database selected. The main editor shows a script with the following queries:

```
1 -- MySQL dump 10.13  Distrib 8.0.19, for osx10.14 (x86_64)
2 --
3 -- Host: 127.0.0.1  Database: world
4 --
5 -- Server version  8.0.19-debug
6
7 /*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
8 /*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
9 /*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
10 /*!50503 SET NAMES utf8mb4 */;
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99
100
```

The Action Output pane shows the following results:

Time	Action	Response	Duration / Fetch Time
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZAF','Southsotho','F',7.6)	1 row(s) affected 0.00042 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZAF','Swazi','F',2.5)	1 row(s) affected 0.00051 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZAF','Tsonga','F',4.3)	1 row(s) affected 0.00038 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZAF','Tswana','F',8.1)	1 row(s) affected 0.00032 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZAF','Venda','F',2.2)	1 row(s) affected 0.00041 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZAF','Xhosa','T',17.7)	1 row(s) affected 0.00034 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZAF','Zulu','T',22.7)	1 row(s) affected 0.00034 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZMB','Bemba','F',29.7)	1 row(s) affected 0.00039 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZMB','Chewa','F',5.7)	1 row(s) affected 0.00034 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZMB','Lozi','F',6.4)	1 row(s) affected 0.00084 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZMB','Nsenga','F',4.3)	1 row(s) affected 0.00045 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZMB','Nyanja','F',7.8)	1 row(s) affected 0.00053 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZMB','Tongan','F',11.0)	1 row(s) affected 0.00050 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZWE','English','T',2.2)	1 row(s) affected 0.00048 sec
10...	14:29:38	INSERT INTO 'countrylanguage' VALUES ('ZWE','Ndebele','F',16.2)	1 row(s) affected 0.00049 sec




Page 9-10 Info

Page 11 Task 1

Answer 274, number of US cities

```
14  -- Country code for United states is USA
15  • select COUNT(*)
16  from city
    where CountryCode = 'USA'
    ;
```

100% 16:15

Result Grid   Filter Rows: Export: 




	COUNT(*)	
▶	274	

Page 12 Task 2

Population and Average life expectancy for Argentina

```
23  -- Task 2
24  -- Population and average life expectancy
25  • select Population, LifeExpectancy
26  from country
27  WHERE Code = 'ARG'
28
```

100% 19:27

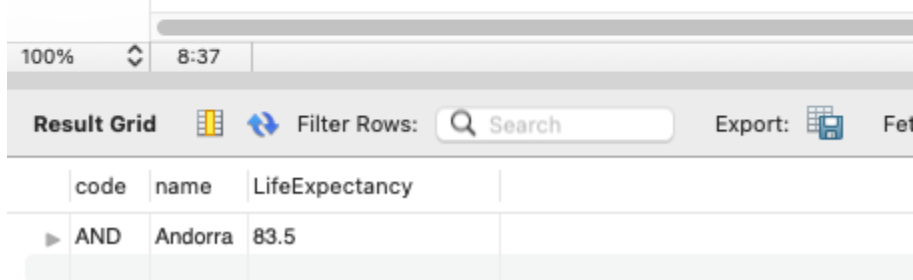
Result Grid   Filter Rows: Export: 

	Population	LifeExpectancy	
▶	37032000	75.1	

Page 13 Task 3

Which country has highest life expectancy?

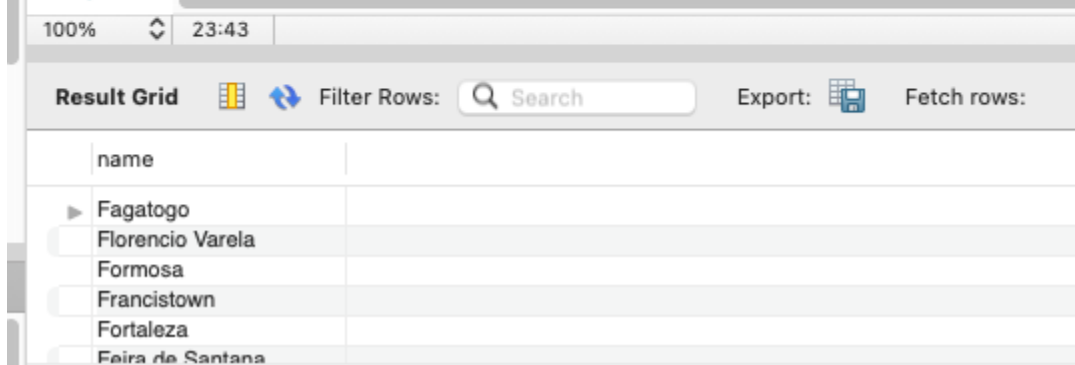
```
32  -- Task 3
33  -- Which country has highest life expectancy?
34  • select code, name, LifeExpectancy
35  from country
36  ORDER BY LifeExpectancy DESC
37  Limit 1;
38
```



	code	name	LifeExpectancy
▶	AND	Andorra	83.5

Page 14 Task 4

```
39
40  -- Task 4
41  -- Countries that start with 'F'
42  -- NB there are 78 results, I didnt order them, just
43  -- just added limit 25
44  • select name
45  from city
46  WHERE name LIKE 'F%'
47  LIMIT 25
48  ;
49
```





	name
▶	Fagatogo
	Florencio Varela
	Formosa
	Francistown
	Fortaleza
	Feira de Santana

Page 15 Task 5

```
50  -- Task 5
51  • select ID, Name, Population
52    from city
53    Limit 10
54    ;
55
```

100% 9:53



Result Grid   Filter Rows:

	ID	Name	Population
	2	Qandahar	237500
	3	Herat	186800
	4	Mazar-e-Sharif	127800
	5	Amsterdam	731200
	6	Rotterdam	593321

Page 16 Task 6

```
56  -- Task 6
57  • select ID, Name, Population
58    from city
59    where Population > 2000000
60    ;
61
```

100% 2:60

Result Grid   Filter Rows:

	ID	Name	Population
	68	Buenos Aires	2982146
	130	Sydney	3276207
	131	Melbourne	2865329
	150	Dhaka	3612850

Page 17 Task 7

```
61 -- Task 7
62 -- City names with 'Be' but eye balling it I saw Be and Be^ accent e.
63 -- Just ran 'B%' first. Ok, can see few types of be
64 -- Now run multiple where to capture all
65 -- Ah, no need, BE captures accent e too. i.e Bechar and Benguela. yolo
66 • select *
67 from city
68 WHERE name LIKE 'Be%'
69 ;
```

100% 68:65

Result Grid Filter Rows: Search Edit: Export/Import:

	ID	Name	CountryCode	District	Population
▶	45	Béjaïa	DZA	Béjaïa	117162
	49	Béchar	DZA	Béchar	107311
	59	Benguela	AGO	Benguela	128300
	93	Berazategui	ARG	Buenos Aires	276916

Page 18 Task 8

301 with Two WHERE, 303 with WHERE BETWEEN. Fun!

```
71  -- Task 8
72  -- Pop between 500,000 and 1,000,000
73  -- Not sure if its between or two where , so checking the difference first.
74  -- BETWEEN gave me 303, Two WHERE gave me 301. Hmm investigate
75  -- Order by limit 5 then DSC limit 5. See which ones are different
76  -- Order by and limit, didnt work. So googled it.
77  -- Between is inclusive i.e 500,000 =< and >= 1,000,000 whereas WHERE is > and <.
78  -- So made a query, ran it. This tells you the difference between WHERE and BETWEEN. BOOM! it was Amman and Pointe-Noire
79  /*select ID, Name, Population
80      from city
81      where Population = 500000
82      or population = 1000000
83      ;
84  */
85
86 • select ID, Name, Population
87   from city
88  where Population between 500000 AND 1000000
89  Order by Population
90  ;
91 • select ID, Name, Population
92   from city
93  where Population > 500000
94  AND population < 1000000
95  Order by Population
96  ;
```

Page 19 Task 9

Lowest population in city table

```
105  -- Task 9
106  -- Lowest population in city table
107 • select ID, Name, Population
108      from city
109      Order By Population
110      Limit 1;
111
```

100% 8:110

Result Grid Filter Rows: Search

	ID	Name	Population
▶	2912	Adamstown	42
	NULL	NULL	NULL

Page 20 BONUS Questions

Capital of Spain

The screenshot shows a database query editor interface. At the top, there are tabs for 'Query 1', 'world db', and 'Assignment_part2*'. Below the tabs is a toolbar with various icons for file operations, execution, and search. A 'Limit to 10000 rows' dropdown is also present. The main area contains SQL code with line numbers 112 through 129. The code consists of three queries: a comment, a query for the United States, and a query for the capital of Spain. Below the code is a horizontal scrollbar. At the bottom, there is a 'Result Grid' section with a 'Filter Rows' search bar and an 'Export' button. The result grid shows a single row with columns 'Capital_of_Country', 'CountryCode', and 'name', containing the values 'Madrid', 'ESP', and 'Spain' respectively.

```
112  -- Task BONUS
113  -- Capital of Spain
114  •  select*
115     from country
116     where name = 'united states';
117
118  •  select*
119     from city
120     where ID = '3813';
121
122
123  •  select city.name AS 'Capital_of_Country', city.CountryCode, country.name
124     from city
125     JOIN country
126     ON city.ID = country.capital
127     WHERE country.name = 'Spain'
128     ;
129
```

100% 1:121

Result Grid Filter Rows: Search Export:

Capital_of_Country	CountryCode	name
Madrid	ESP	Spain

Languages in Caribbean

```
131 -- Page 20 BONUS 2
132 -- Languages in Caribbean region
133 -- Explore both tables.
134 -- countrylanguage --> CountryCode and country --> Code
135 -- Extract more columns than you need, sense check
136 /*select*
137    from country;
138    select*
139    from countrylanguage;
140 */
141
142 • select country.code, country.region, country.Name, countrylanguage.language
143    from country
144   join countrylanguage
145  on country.code = countrylanguage.countrycode
146  where country.region = 'Caribbean'
147 ;
148
149 • select DISTINCT countrylanguage.language
150    from country
151   join countrylanguage
152  on country.code = countrylanguage.countrycode
153  where country.region = 'Caribbean'
154 ;
```

155
100% 35:146

Result Grid



Filter Rows:



Search

Export:



language

► Dutch

English

Papiamentu

Spanish

Creole English

Creole French

Bajan

French

Haiti Creole

Hindi

All cities in European Continent

```
157 -- Page 20 Bonus 3
158 -- All cities in Europe continent
159 -- Exploring tables, select* from country; select* from city;
160 -- found search and result columns; Country.Continent and city.name
161 -- Will only join on city.countrycode and country.code
162
163 • select city.countrycode, city.name AS 'CityName', country.continent
164 from country
165 join city
166 ON country.code = city.countrycode
167 WHERE country.continent = 'Europe';
168
169
```

100% 5:160

Result Grid



Filter Rows:



Search

Export:



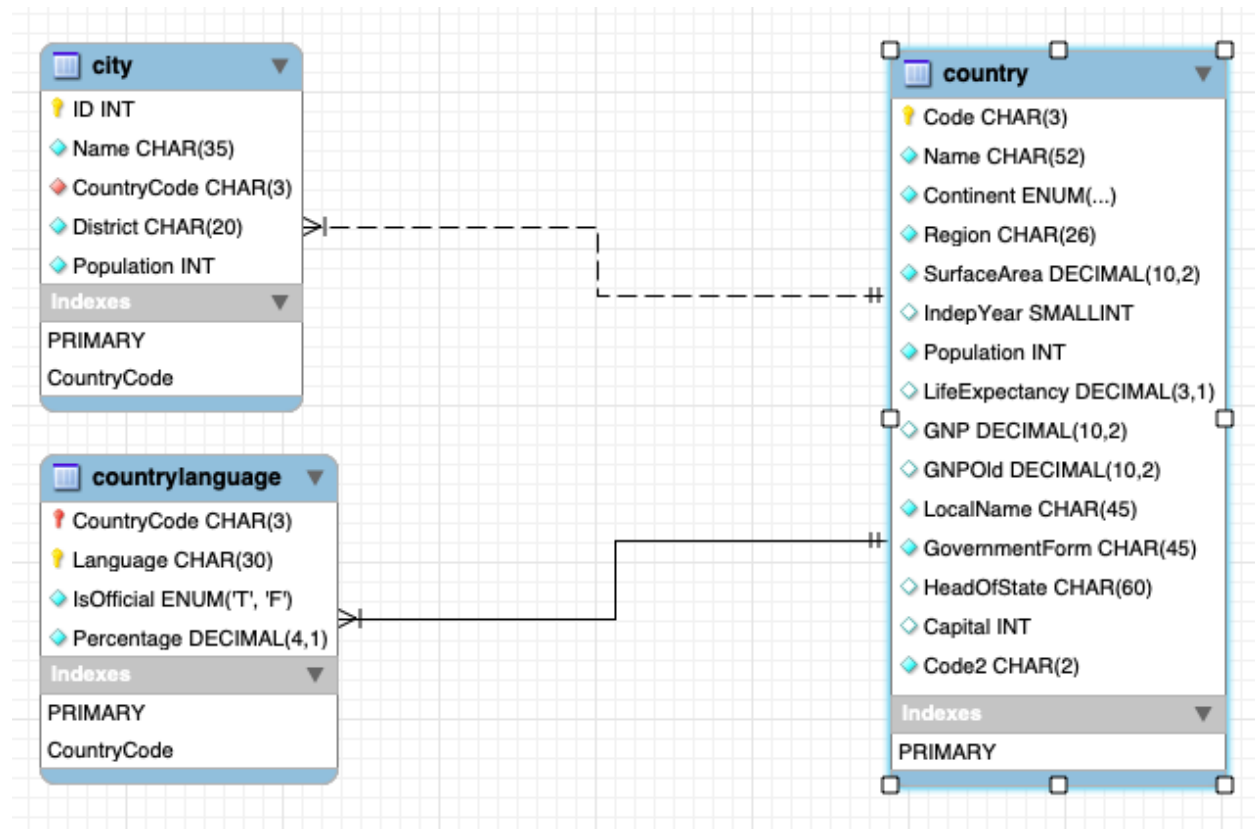
	countrycode	CityName	continent
	BLH	Pinsk	Europe
	BLR	Orša	Europe
	BLR	Mozyr	Europe

Result 112

Action Output



	Time	Action	Response
✓	10...	17:41:01	select city.countrycode, city.name AS 'CityName', coun... 4086 row(s) returned
✓	10...	17:42:42	select city.countrycode, city.name AS 'CityName', coun... 841 row(s) returned
✓	10...	17:43:13	select city.countrycode, city.name AS 'CityName', coun... 841 row(s) returned
✓	10...	17:43:43	select city.countrycode, city.name AS 'CityName', coun... 841 row(s) returned
✓	10...	17:43:55	select city.countrycode, city.name AS 'CityName', coun... 841 row(s) returned



CODE FROM SQL SCRIPT PASTING IN HERE FOR SAFETY

Task 1 Using count, get number of cities in USA

-- first explore city table

/*

select*

from city

;

```
*/
```

```
-- we'll need the CountryCode from country table, lets explore country table
```

```
/*
```

```
select*
```

```
from country
```

```
;
```

```
*/
```

```
-- Country code for United states is USA
```

```
/*
```

```
select COUNT(*)
```

```
from city
```

```
where CountryCode = 'USA'
```

```
;
```

```
*/
```

```
-- Task 2
```

```
-- Population and average life expectancy
```

```
/*
```

```
select Population, LifeExpectancy
```

```
from country
```

```
WHERE Code = 'ARG'
```

```
;
```

```
*/
```

```
-- Task 3
```

-- Which country has highest life expectancy?

select code, name, LifeExpectancy

from country

ORDER BY LifeExpectancy DESC

Limit 1

;

-- Task 4

-- Countries that start with 'F'

-- NB there are 78 results, I didnt order them, just

-- just added limit 25

select name

from city

WHERE name LIKE 'F%'

LIMIT 25

;

-- Task 5

select ID, Name, Population

from city

Limit 10

;

-- Task 6

select ID, Name, Population

from city

where Population > 2000000

;

-- Task 7

-- City names with 'Be' but eye balling it I saw Be and Be^ accent e.

-- Just ran 'B%' first. Ok, can see few types of be

-- Now run multiple where to capture all

-- Ah, no need, BE captures accent e too. i.e Bechar and Benguela. yolo

select *

from city

WHERE name LIKE 'Be%'

;

-- Task 8

-- Pop between 500,000 and 1,000,000

-- Not sure if its between or two where , so checkcing the difference first.

-- BETWEEN gave me 303, Two WHERE gave me 301. Hmm investigate

-- Order by limit 5 then DSC limit 5. See which ones are different

-- Order by and limit, didnt work. So googled it.

-- Between is inclusive i.e 500,000 =< and >= 1,000,000 whereas WHERE is > and <.

-- So made a query, ran it. This tells you the difference between WHERE and BETWEEN.

BOOM! it was Amman and Pointe-Noire

/*select ID, Name, Population

from city

where Population = 500000

or population = 1000000

;

*/

```
select ID, Name, Population
```

```
from city
```

```
where Population between 500000 AND 1000000
```

```
Order by Population
```

```
;
```

```
select ID, Name, Population
```

```
from city
```

```
where Population > 500000
```

```
AND population < 1000000
```

```
Order by Population
```

```
;
```

```
-- This tells you the different. BOOM! it was Amman and Pointe-Noire
```

```
/*select ID, Name, Population
```

```
from city
```

```
where Population = 500000
```

```
or population = 1000000
```

```
;
```

```
*/
```

```
-- Task 9
```

```
-- Lowest population in city table
```

```
select ID, Name, Population
```

```
from city
```

```
Order By Population
```

Limit 1;

-- PAGE 20 Task BONUS

-- Capital of Spain

select*

from country

where name = 'united states';

select*

from city

where ID = '3813';

select city.name AS 'Capital_of_Country', city.CountryCode, country.name

from city

JOIN country

ON city.ID = country.capital

WHERE country.name = 'Spain'

;

-- Page 20 BONUS 2

-- Languages in Caribbean region

-- Explore both tables.

-- countrylanguage --> CountryCode and country --> Code

-- Extract more columns than you need, sense check


```
/*select*
```

```
from country;
```

```
select*
```

```
from countrylanguage;
```

```
*/
```

```
select country.code, country.region, country.Name, countrylanguage.language
```

```
from country
```

```
join countrylanguage
```

```
ON country.code = countrylanguage.countrycode
```

```
WHERE country.region = 'Caribbean'
```

```
;
```

```
select DISTINCT countrylanguage.language
```

```
from country
```

```
join countrylanguage
```

```
ON country.code = countrylanguage.countrycode
```

```
WHERE country.region = 'Caribbean'
```

```
;
```

```
-- Page 20 Bonus 3
```

```
-- All cities in Europe continent
```

```
-- Exploring tables, select* from country; select* from city;
```

```
-- found search and result columns; Country.Continent and city.name
```

```
-- Will only join on city.countrycode and country.code
```

```
select city.countrycode, city.name AS 'CityName', country.continent  
from country  
join city  
ON country.code = city.countrycode  
WHERE country.continent = 'Europe';
```