Q1)
```
/usr/local/mysql/bin/mysql -u root -p world <
/Users/burak/Downloads/Comp306_HW2/world.sql
```

```
burak@BURAK-MacBook-Pro ~ % /usr/local/mysql/bin/mysql -u root -p world < /Users/burak/Downloads/Comp306_HW2/world.sql
Enter password:
burak@BURAK-MacBook-Pro ~ % /usr/local/mysql/bin/mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 26
Server version: 8.0.28 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> USE world;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> SHOW TABLES;
+-----------------+
| Tables_in_world |
+-----------------+
| city            |
| country         |
| countrylanguage |
+-----------------+
3 rows in set (0.00 sec)
```

Q2)
    A) SELECT C.Name ,C.GNP
FROM country C
WHERE C.Continent='Europe' AND C.IndepYear>1930;

```
SELECT C.Name ,C.GNP
FROM country C
WHERE C.Continent='Europe' AND C.IndepYear>1930;
```

Name	GNP
Bosnia and Herzegovina	2841.00
Belarus	13714.00
Czech Republic	55017.00
Germany	2133367.00
Estonia	5328.00
Croatia	20208.00
Iceland	8255.00
Lithuania	10692.00
Latvia	6398.00
Moldova	1579.00
Macedonia	1694.00
Malta	3512.00
Russian Federation	276608.00
Slovakia	20594.00
Slovenia	19756.00
Ukraine	42168.00

    B)
SELECT Ctry.Code, Ctry.Name, Cty.Name, Cty.Population
FROM country Ctry, city Cty
WHERE Ctry.LifeExpectancy>75 AND Ctry.Population<1000000 AND Ctry.Code =
Cty.CountryCode;

```
SELECT Ctry.Code, Ctry.Name, Cty.Name, Cty.Population
FROM country Ctry, city Cty
WHERE Ctry.LifeExpectancy>75 AND Ctry.Population<1000000 AND Ctry.Code = Cty.CountryCode;
```

Code	Name	Name	Population
ABW	Aruba	Oranjestad	29034
AIA	Anguilla	South Hill	961
AIA	Anguilla	The Valley	595
AND	Andorra	Andorra la Vella	21189
ASM	American Samoa	Tafuna	5200
ASM	American Samoa	Fagatogo	2323
BMU	Bermuda	Saint George	1800
BMU	Bermuda	Hamilton	1200
CYM	Cayman Islands	George Town	19600
CYP	Cyprus	Nicosia	195000
CYP	Cyprus	Limassol	154400
FRO	Faroe Islands	Tórshavn	14542
GIB	Gibraltar	Gibraltar	27025
GLP	Guadeloupe	Les Abymes	62947
GLP	Guadeloupe	Basse-Terre	12433
GUF	French Guiana	Cayenne	50699
GUM	Guam	Tamuning	9500
GUM	Guam	Agaña	1139
ISL	Iceland	Reykjavík	109184
LIE	Liechtenstein	Schaan	5346
LIE	Liechtenstein	Vaduz	5043
LUX	Luxembourg	Luxembourg […	80700
MAC	Macao	Macao	437500
MCO	Monaco	Monte-Carlo	13154
MCO	Monaco	Monaco-Ville	1234
MLT	Malta	Birkirkara	21445
MLT	Malta	Valletta	7073
MNP	Northern Maria…	Garapan	9200
MSR	Montserrat	Plymouth	2000
MTQ	Martinique	Fort-de-France	94050
SHN	Saint Helena	Jamestown	1500
SMR	San Marino	Serravalle	4802
SMR	San Marino	San Marino	2294
SPM	Saint Pierre and…	Saint-Pierre	5808
VGB	Virgin Islands,…	Road Town	8000
VIR	Virgin Islands,…	Charlotte Amalie	13000

C) SELECT DISTINCT Ctrylang.Language
FROM country Ctry, countrylanguage Ctrylang
WHERE Ctry.SurfaceArea>1000000 AND Ctrylang.Percentage>50 AND Ctry.Code = Ctrylang.CountryCode;

```
SELECT DISTINCT Ctrylang.Language
FROM country Ctry, countrylanguage Ctrylang
WHERE Ctry.SurfaceArea>1000000 AND Ctrylang.Percentage>50 AND Ctry.Code = Ctrylang.CountryCode;
```

Language
Spanish
English
Portuguese
Chinese
Arabic
Greenlandic
Mongolian
Hassaniya
Hausa
Russian

D) SELECT DISTINCT Cty.CountryCode, Cty.Name
FROM city Cty
WHERE Cty.Population<90000 AND Cty.CountryCode IN (SELECT Ctry.Code
FROM country Ctry, countrylanguage Ctrylang
WHERE Ctry.Code=Ctrylang.CountryCode AND Ctrylang.Language='German' AND Ctrylang.Percentage>1);

```sql
SELECT DISTINCT Cty.CountryCode, Cty.Name
FROM city Cty
WHERE Cty.Population<90000 AND Cty.CountryCode IN (SELECT Ctry.Code
FROM country Ctry, countrylanguage Ctrylang
WHERE Ctry.Code=Ctrylang.CountryCode AND Ctrylang.Language='German' AND Ctrylang.Percentage>1);
```
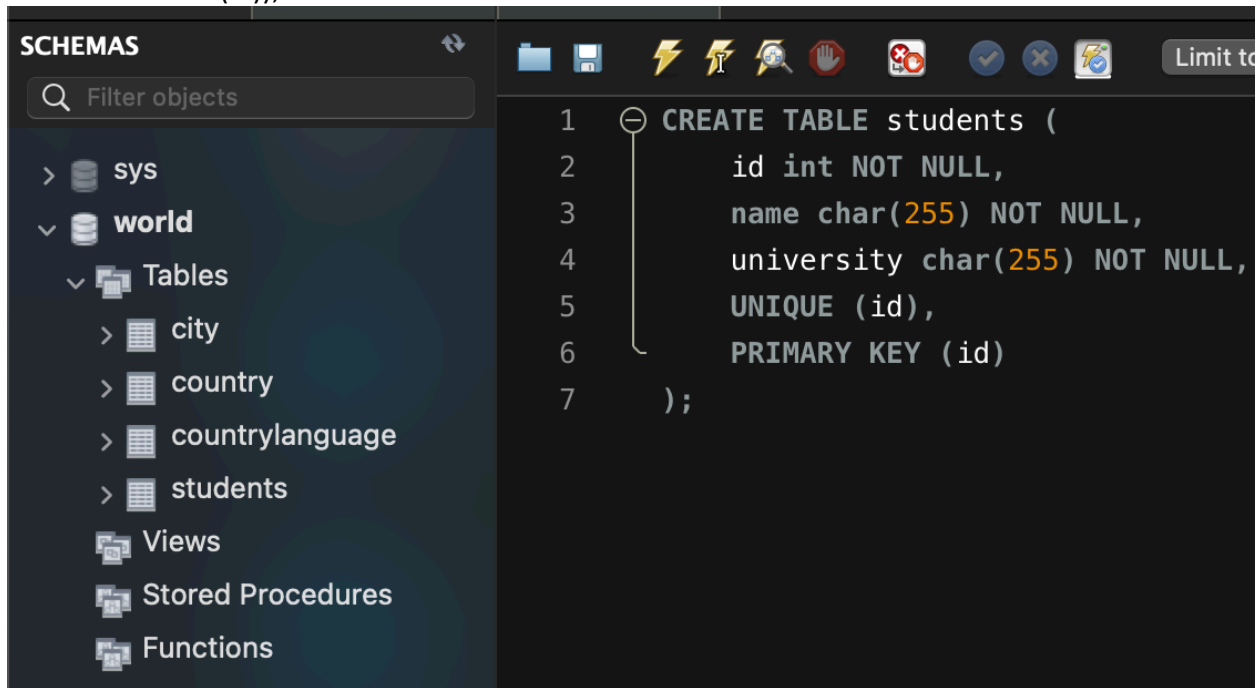
CountryCode	Name
CAN	Kelowna
CAN	Barrie
DEU	Velbert
DEU	Esslingen am Neckar
LIE	Schaan
LIE	Vaduz
LUX	Luxembourg [Luxemburg/Lëtzebuerg]

Q3)
   A)

CREATE TABLE students (
   id int NOT NULL,
   name char(255) NOT NULL,
   university char(255) NOT NULL,
   UNIQUE (id),

PRIMARY KEY (id));

```sql
CREATE TABLE students (
    id int NOT NULL,
    name char(255) NOT NULL,
    university char(255) NOT NULL,
    UNIQUE (id),
    PRIMARY KEY (id)
);
```
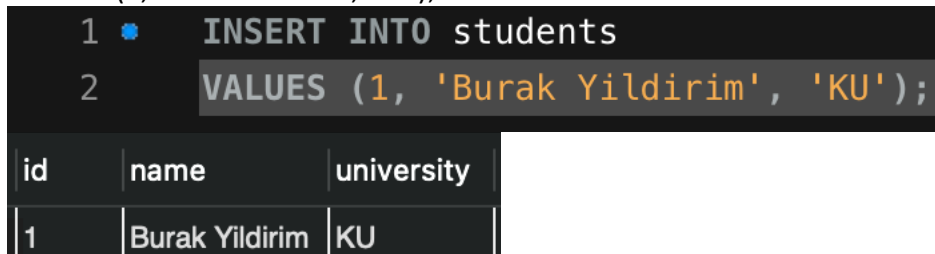
SCHEMAS
- sys
- world
  - Tables
    - city
    - country
    - countrylanguage
    - students
  - Views
  - Stored Procedures
  - Functions

B)

```sql
INSERT INTO students
VALUES (1, 'Burak Yildirim', 'KU');
```

```sql
INSERT INTO students
VALUES (1, 'Burak Yildirim', 'KU');
```

id	name	university
1	Burak Yildirim	KU

C)

```sql
INSERT INTO students
VALUES
(2, 'John Stark', 'KU'),
(3, 'Yasemin A', 'SU'),
(4, 'Can Y', 'BOUN'),
(5, 'Efe G', 'SU'),
(6, 'Armagan T', 'SU'),
(7, 'Cem K', 'KU'),
(8, 'Yang W', 'KU'),
(9, 'Uras C', 'Boun');
```

```
INSERT INTO students
VALUES
(2, 'John Stark', 'KU'),
(3, 'Yasemin A', 'SU'),
(4, 'Can Y', 'BOUN'),
(5, 'Efe G', 'SU'),
(6, 'Armagan T', 'SU'),
(7, 'Cem K', 'KU'),
(8, 'Yang W', 'KU'),
(9, 'Uras C', 'Boun');
```

id	name	university
1	Burak Yildirim	KU
2	John Stark	KU
3	Yasemin A	SU
4	Can Y	BOUN
5	Efe G	SU
6	Armagan T	SU
7	Cem K	KU
8	Yang W	KU
9	Uras C	Boun

D)

UPDATE students
SET university='KU'
WHERE name='Efe G';

```
UPDATE students
SET university='KU'
WHERE name='Efe G';
```

id	name	university
1	Burak Yildirim	KU
2	John Stark	KU
3	Yasemin A	SU
4	Can Y	BOUN
5	Efe G	KU
6	Armagan T	SU
7	Cem K	KU
8	Yang W	KU
9	Uras C	Boun

E)

DELETE FROM students
WHERE name='John Stark';
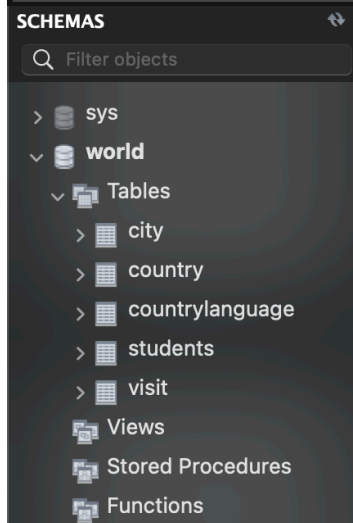
```
DELETE FROM students
WHERE name='John Stark';
```

id	name	university
1	Burak Yildirim	KU
3	Yasemin A	SU
4	Can Y	BOUN
5	Efe G	KU
6	Armagan T	SU
7	Cem K	KU
8	Yang W	KU
9	Uras C	Boun

Q4)

A)

CREATE TABLE visit (
    vstudentid int,
    vcityid int,
    PRIMARY KEY (vstudentid,vcityid),
    FOREIGN KEY (vstudentid) REFERENCES students(id) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (vcityid) REFERENCES city(ID) ON UPDATE CASCADE ON DELETE RESTRICT
);

```
CREATE TABLE visit (
    vstudentid int,
    vcityid int,
    PRIMARY KEY (vstudentid,vcityid),
    FOREIGN KEY (vstudentid) REFERENCES students(id) ON UPDATE CASCADE ON DELETE RESTRICT,
    FOREIGN KEY (vcityid) REFERENCES city(ID) ON UPDATE CASCADE ON DELETE RESTRICT
);
```

SCHEMAS

Q Filter objects

> sys
∨ world
  ∨ Tables
    > city
    > country
    > countrylanguage
    > students
    > visit
  Views
  Stored Procedures
  Functions

B)

LOAD DATA LOCAL INFILE '/Users/burak/Downloads/Comp306_HW2/visit.txt' INTO TABLE visit;

```
mysql> LOAD DATA LOCAL INFILE '/Users/burak/Downloads/Comp306_HW2/visit.txt' INTO TABLE visit;
Query OK, 20 rows affected (0.00 sec)
Records: 20  Deleted: 0  Skipped: 0  Warnings: 0
```

vstudentid	vcityid
3	5
6	5
5	608
4	1532
9	1881
3	2974
1	3357
3	3357
4	3357
5	3357
6	3357
7	3357
8	3357
9	3357
6	3358
6	3580
9	3580
7	3592
8	3793
6	3794

C)

SELECT DISTINCT C.ID, C.Name
FROM visit V, city C
WHERE V.vcityid=C.ID;

```
SELECT DISTINCT C.ID, C.Name
FROM visit V, city C
WHERE V.vcityid=C.ID;
```

ID	Name
5	Amsterdam
608	Cairo
1532	Tokyo
1881	Nairobi
2974	Paris
3357	Istanbul
3358	Ankara
3580	Moscow
3592	Volgograd
3793	New York
3794	Los Angeles

D)

SELECT S.id, S.name
FROM visit V, city C, students S
WHERE V.vcityid=C.ID AND V.vstudentid=S.id AND C.Name='Amsterdam' AND S.id NOT IN
(SELECT S2.id
FROM visit V2, city C2, students S2

WHERE V2.vcityid=C2.ID AND V2.vstudentid=S2.id AND C2.Name='Paris');

```
SELECT S.id, S.name
FROM visit V, city C, students S
WHERE V.vcityid=C.ID AND V.vstudentid=S.id AND C.Name='Amsterdam' AND S.id NOT IN
(SELECT S2.id
FROM visit V2, city C2, students S2
WHERE V2.vcityid=C2.ID AND V2.vstudentid=S2.id AND C2.Name='Paris');
```

id	name
6	Armagan T

E)

```
SELECT DISTINCT S.id, S.name
FROM students S
WHERE S.id NOT IN (SELECT V.vstudentid
FROM visit V, country Ctry, city Cty
WHERE V.vcityid=Cty.ID AND Cty.CountryCode=Ctry.Code AND Ctry.Name='Russian Federation'
);
```

```
SELECT DISTINCT S.id, S.name
FROM students S
WHERE S.id NOT IN (SELECT V.vstudentid
FROM visit V, country Ctry, city Cty
WHERE V.vcityid=Cty.ID AND Cty.CountryCode=Ctry.Code AND Ctry.Name='Russian Federation'
);
```

id	name
1	Burak Yildirim
3	Yasemin A
4	Can Y
5	Efe G
8	Yang W

F)

```
SELECT S.id, S.name
FROM students S
WHERE S.id in (
        SELECT V.vstudentid
        FROM visit V, country Ctry, city Cty
    WHERE V.vcityid=Cty.ID AND Cty.CountryCode=Ctry.Code AND Ctry.Continent='Africa'
    );
```

```
SELECT S.id, S.name
FROM students S
WHERE S.id in (
    SELECT V.vstudentid
    FROM visit V, country Ctry, city Cty
    WHERE V.vcityid=Cty.ID AND Cty.CountryCode=Ctry.Code AND Ctry.Continent='Africa'
    );
```

id	name	
5	Efe G	
9	Uras C	

   G)

SELECT DISTINCT Ctry.Continent
FROM country Ctry
WHERE Ctry.Continent NOT IN (
        SELECT Ctry2.Continent
   FROM country Ctry2, visit V, city Cty
   WHERE V.vcityid=Cty.ID AND Cty.CountryCode=Ctry2.Code);

```
SELECT DISTINCT Ctry.Continent
FROM country Ctry
WHERE Ctry.Continent NOT IN (
    SELECT Ctry2.Continent
    FROM country Ctry2, visit V, city Cty
    WHERE V.vcityid=Cty.ID AND Cty.CountryCode=Ctry2.Code);
```

Continent
South America
Oceania
Antarctica

Q5)
/usr/local/mysql/bin/mysqldump -u root -p world > world-export.sql
```
[burak@BURAK-MacBook-Pro ~ % /usr/local/mysql/bin/mysqldump -u root -p world > wo]
rld-export.sql
[Enter password:                                                                 ]
burak@BURAK-MacBook-Pro ~ %
```