Code for part 1:

select \* from Users U join Listens L on L.userName=U.name join Song S on L.songName=S.name where U.name='Jamiya4' and S.name<='Dirty K4';

select \* from Song S where dateReleased <= '1995-02-17' group by S.name ;

select A.name from Artist A, Song S, Performs P where A.name=P.artistName and S.name=P.songName group by A.name having count(\*)=4;

Code for part 2:

insert into Users values('Oscar201', 21, 'Fayetteville', 'NC', '2021-02-17');

select \* from Users U where U.name='Oscar201';

update Users set age=age+1 where name='Oscar201';

select \* from Users U where U.name='Oscar201';

select \* from Artist A where A.age=22;

update Artist set age=age+1 where age=22;

select \* from Artist A where A.age=23;

output for both parts:

3 queries on my PDA database with english descriptions:

1)Find all information on the songs Jamiya4 listened to that are less than or equal to Dirty K4

select \* from Users U join Listens L on L.userName=U.name join Song S on L.songName=S.name where U.name='Jamiya4' and S.name<='Dirty K4';

+---------+-----+--------------+-------+------------+----------+-----------+------------+-----------+-------------+--------------+------------+------------+

| name | age | city | state | dateJoined | userName | songName | numListens | name | genre | dateReleased | isExplicit | numListens |

+---------+-----+--------------+-------+------------+----------+-----------+------------+-----------+-------------+--------------+------------+------------+

| Jamiya4 | 40 | Philadelphia | PA | 2019-07-28 | Jamiya4 | Dirty K14 | 429 | Dirty K14 | Hip-Hop/Rap | 1997-04-08 | 1 | 169806559 |

| Jamiya4 | 40 | Philadelphia | PA | 2019-07-28 | Jamiya4 | Dirty K21 | 419 | Dirty K21 | Hip-Hop/Rap | 2013-05-09 | 1 | 169878402 |

| Jamiya4 | 40 | Philadelphia | PA | 2019-07-28 | Jamiya4 | Dirty K22 | 149 | Dirty K22 | Hip-Hop/Rap | 2000-03-18 | 1 | 519794418 |

| Jamiya4 | 40 | Philadelphia | PA | 2019-07-28 | Jamiya4 | Dirty K23 | 278 | Dirty K23 | Hip-Hop/Rap | 2011-02-10 | 1 | 156781683 |

| Jamiya4 | 40 | Philadelphia | PA | 2019-07-28 | Jamiya4 | Dirty K27 | 475 | Dirty K27 | Hip-Hop/Rap | 2000-05-28 | 1 | 238949882 |

| Jamiya4 | 40 | Philadelphia | PA | 2019-07-28 | Jamiya4 | Dirty K35 | 4 | Dirty K35 | Hip-Hop/Rap | 1998-04-06 | 1 | 550095282 |

| Jamiya4 | 40 | Philadelphia | PA | 2019-07-28 | Jamiya4 | Dirty K38 | 71 | Dirty K38 | Hip-Hop/Rap | 2005-09-27 | 1 | 676287990 |

| Jamiya4 | 40 | Philadelphia | PA | 2019-07-28 | Jamiya4 | Dirty K4 | 432 | Dirty K4 | Hip-Hop/Rap | 2012-01-10 | 1 | 416927026 |

+---------+-----+--------------+-------+------------+----------+-----------+------------+-----------+-------------+--------------+------------+------------+

8 rows in set (0.0033 sec)

2)List all the infomration on all 35-year old artists in alpabetical order by home state

MySQL localhost:3306 ssl musicappdb SQL > select \* from Artist A where A.age=35 group by A.state;

+--------------+-----+-------------+-------+

| name | age | city | state |

+--------------+-----+-------------+-------+

| 21 Savage94 | 35 | Atlanta | GA |

| MF DOOM25 | 35 | Long Island | NY |

| Rico Nasty61 | 35 | Palmer Park | MD |

| SZA46 | 35 | St. Louis | MO |

+--------------+-----+-------------+-------+

4 rows in set (0.0007 sec)

3)Find the name of all artists in alphabetical order that have performed exactly 4 songs

MySQL localhost:3306 ssl musicappdb SQL > select A.name from Artist A, Song S, Performs P where A.name=P.artistName and S.name=P.songName group by P.artistName having count(\*)=4;

+--------------+

| name |

+--------------+

| 21 Savage2 |

| J. Cole15 |

| J. Cole18 |

| J. Cole78 |

| J. Cole85 |

| MF DOOM17 |

| MF DOOM62 |

| Rico Nasty2 |

| Sade22 |

| Sade82 |

| SZA16 |

| SZA67 |

| Young Nudy15 |

+--------------+

13 rows in set (0.0024 sec)

3 data modification commands on my PDA:

1)Simple Insert:

MySQL localhost:3306 ssl musicappdb SQL > insert into Users values('Oscar201', 21, 'Fayetteville', 'NC', '2021-02-17');

Query OK, 1 row affected (0.0017 sec)

MySQL localhost:3306 ssl musicappdb SQL > select \* from Users U where U.name='Oscar201';

+----------+-----+--------------+-------+------------+

| name | age | city | state | dateJoined |

+----------+-----+--------------+-------+------------+

| Oscar201 | 21 | Fayetteville | NC | 2021-02-17 |

+----------+-----+--------------+-------+------------+

1 row in set (0.0002 sec)

2)Simple Update:

MySQL localhost:3306 ssl musicappdb SQL > update Users set age=age+1 where name='Oscar201';

Query OK, 1 row affected (0.0016 sec)

Rows matched: 1 Changed: 1 Warnings: 0

MySQL localhost:3306 ssl musicappdb SQL > select \* from Users U where U.name='Oscar201';

+----------+-----+--------------+-------+------------+

| name | age | city | state | dateJoined |

+----------+-----+--------------+-------+------------+

| Oscar201 | 22 | Fayetteville | NC | 2021-02-17 |

+----------+-----+--------------+-------+------------+

1 row in set (0.0002 sec)

3)Update of seval tuples:

MySQL localhost:3306 ssl musicappdb SQL > select \* from Artist A where A.age=22;

+----------------------+-----+--------------+---------+

| name | age | city | state |

+----------------------+-----+--------------+---------+

| 21 Savage60 | 22 | Atlanta | GA |

| 21 Savage91 | 22 | Atlanta | GA |

| J. Cole31 | 22 | Fayetteville | NC |

| J. Cole64 | 22 | Fayetteville | NC |

| J.I.D.77 | 22 | Atlanta | GA |

| MF DOOM76 | 22 | Long Island | NY |

| MF DOOM89 | 22 | Long Island | NY |

| MF DOOM9 | 22 | Long Island | NY |

| Rico Nasty84 | 22 | Palmer Park | MD |

| Rico Nasty91 | 22 | Palmer Park | MD |

| Sade87 | 22 | Ibadan | Nigeria |

| The Isley Brothers60 | 22 | Cincinnati | OH |

| The Isley Brothers64 | 22 | Cincinnati | OH |

+----------------------+-----+--------------+---------+

13 rows in set (0.0004 sec)

MySQL localhost:3306 ssl musicappdb SQL > update Artist set age=age+1 where age=22;

Query OK, 13 rows affected (0.0023 sec)

Rows matched: 13 Changed: 13 Warnings: 0

MySQL localhost:3306 ssl musicappdb SQL > select \* from Artist A where A.age=23;

+----------------------+-----+--------------+---------+

| name | age | city | state |

+----------------------+-----+--------------+---------+

| 21 Savage60 | 23 | Atlanta | GA |

| 21 Savage91 | 23 | Atlanta | GA |

| J. Cole17 | 23 | Fayetteville | NC |

| J. Cole31 | 23 | Fayetteville | NC |

| J. Cole36 | 23 | Fayetteville | NC |

| J. Cole39 | 23 | Fayetteville | NC |

| J. Cole64 | 23 | Fayetteville | NC |

| J.I.D.15 | 23 | Atlanta | GA |

| J.I.D.16 | 23 | Atlanta | GA |

| J.I.D.77 | 23 | Atlanta | GA |

| MF DOOM67 | 23 | Long Island | NY |

| MF DOOM76 | 23 | Long Island | NY |

| MF DOOM89 | 23 | Long Island | NY |

| MF DOOM9 | 23 | Long Island | NY |

| Rico Nasty14 | 23 | Palmer Park | MD |

| Rico Nasty20 | 23 | Palmer Park | MD |

| Rico Nasty41 | 23 | Palmer Park | MD |

| Rico Nasty84 | 23 | Palmer Park | MD |

| Rico Nasty91 | 23 | Palmer Park | MD |

| Sade24 | 23 | Ibadan | Nigeria |

| Sade87 | 23 | Ibadan | Nigeria |

| SZA85 | 23 | St. Louis | MO |

| SZA92 | 23 | St. Louis | MO |

| The Isley Brothers60 | 23 | Cincinnati | OH |

| The Isley Brothers64 | 23 | Cincinnati | OH |

+----------------------+-----+--------------+---------+

25 rows in set (0.0007 sec)