UC 1:

```
mysql> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| adaptnxt_db        |
| ems                |
| hibernate_db       |
| information_schema |
| jdbc_peojects      |
| mysql              |
| payroll_service    |
| performance_schema |
| school             |
| sms                |
| sys                |
| tap                |
+--------------------+
12 rows in set (0.04 sec)
```

UC 2:

```
mysql> USE payroll_service;
Database changed
mysql> CREATE TABLE employee_payroll (
    ->     id INT AUTO_INCREMENT PRIMARY KEY,
    ->     name VARCHAR(100),
    ->     salary DOUBLE,
    ->     start DATE
    -> );
Query OK, 0 rows affected (0.06 sec)
```

UC 3:

```
mysql> INSERT INTO employee_payroll (name, salary, start)
    -> VALUES
    -> ('Bill', 100000.00, '2018-01-03'),
    -> ('Charlie', 120000.00, '2019-11-13'),
    -> ('Terisa', 150000.00, '2018-01-03');
Query OK, 3 rows affected (0.03 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql>
```

UC4:

```
mysql> SELECT * FROM employee_payroll;
+----+---------+--------+------------+
| id | name    | salary | start      |
+----+---------+--------+------------+
|  1 | Bill    | 100000 | 2018-01-03 |
|  2 | Charlie | 120000 | 2019-11-13 |
|  3 | Terisa  | 150000 | 2018-01-03 |
+----+---------+--------+------------+
3 rows in set (0.00 sec)

mysql>
```

UC5:

```
+----+---------+--------+------------+
3 rows in set (0.00 sec)

mysql> SELECT salary
    -> FROM employee_payroll
    -> WHERE name = 'Bill';
+--------+
| salary |
+--------+
| 100000 |
+--------+
1 row in set (0.01 sec)

mysql> SELECT *
    -> FROM employee_payroll
    -> WHERE start BETWEEN CAST('2018-01-01' AS DATE) AND DATE(NOW());
+----+---------+--------+------------+
| id | name    | salary | start      |
+----+---------+--------+------------+
|  1 | Bill    | 100000 | 2018-01-03 |
|  2 | Charlie | 120000 | 2019-11-13 |
|  3 | Terisa  | 150000 | 2018-01-03 |
+----+---------+--------+------------+
3 rows in set (0.01 sec)

mysql>
```

UC6:

```
3 rows in set (0.01 sec)

mysql> ALTER TABLE employee_payroll
    -> ADD gender CHAR(1) AFTER name;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> UPDATE employee_payroll
    -> SET gender = 'M'
    -> WHERE name = 'Bill' OR name = 'Charlie';
Query OK, 2 rows affected (0.02 sec)
Rows matched: 2  Changed: 2  Warnings: 0

mysql>
mysql> UPDATE employee_payroll
    -> SET gender = 'F'
    -> WHERE name = 'Terisa';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
```

UC7:

```
Rows matched: 1  changed: 1  warni

mysql> SELECT gender, SUM(salary)
    -> FROM employee_payroll
    -> GROUP BY gender;
+--------+-------------+
| gender | SUM(salary) |
+--------+-------------+
| M      |      220000 |
| F      |      150000 |
+--------+-------------+
2 rows in set (0.01 sec)
```

```
mysql> SELECT gender, AVG(salary)
    -> FROM employee_payroll
    -> GROUP BY gender;
+--------+-------------+
| gender | AVG(salary) |
+--------+-------------+
| M      |      110000 |
| F      |      150000 |
+--------+-------------+
2 rows in set (0.01 sec)
```

```
mysql> SELECT gender, MIN(salary)
    -> FROM employee_payroll
    -> GROUP BY gender;
+--------+-------------+
| gender | MIN(salary) |
+--------+-------------+
| M      |      100000 |
| F      |      150000 |
+--------+-------------+
2 rows in set (0.01 sec)
```

```
mysql> SELECT gender, MAX(salary)
    -> FROM employee_payroll
    -> GROUP BY gender;
+--------+-------------+
| gender | MAX(salary) |
+--------+-------------+
| M      |      120000 |
| F      |      150000 |
+--------+-------------+
2 rows in set (0.00 sec)
```

```
mysql> SELECT gender, COUNT(*)
    -> FROM employee_payroll
    -> GROUP BY gender;
+--------+----------+
| gender | COUNT(*) |
+--------+----------+
| M      |        2 |
| F      |        1 |
+--------+----------+
2 rows in set (0.00 sec)

mysql> CREATE DATABASE address_book_service;
```

ADDRESSBOOk PROBLEM:

UC1:

```
mysql> CREATE DATABASE address_book_service;
Query OK, 1 row affected (0.02 sec)

mysql> USE address_book_service;
Database changed
mysql>
```

UC2:

```
Database changed
mysql> CREATE TABLE address_book (
    ->        id INT AUTO_INCREMENT PRIMARY KEY,
    ->        first_name VARCHAR(50),
    ->        last_name VARCHAR(50),
    ->        address VARCHAR(150),
    ->        city VARCHAR(50),
    ->        state VARCHAR(50),
    ->        zip VARCHAR(10),
    ->        phone_number VARCHAR(15),
    ->        email VARCHAR(100)
    -> );
Query OK, 0 rows affected (0.04 sec)

mysql>
```

UC3:

```
mysql> INSERT INTO address_book
    -> (first_name, last_name, address, city, state, zip, phone_number, email)
    -> VALUES
    -> ('John', 'Doe', 'MG Road', 'Bangalore', 'Karnataka', '560001', '9876543210', 'john@gmail.com'),
    -> ('Jane', 'Smith', 'Park Street', 'Mumbai', 'Maharashtra', '400001', '9123456780', 'jane@gmail.com');
Query OK, 2 rows affected (0.03 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql>
```

UC4:

```
mysql> UPDATE address_book
    -> SET phone_number = '9999999999'
    -> WHERE first_name = 'John';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
```

UC5:

```
mysql> UPDATE address_book
    -> SET phone_number = '9999999999'
    -> WHERE first_name = 'John';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
```

UC6:

```
mysql> SELECT * FROM address_book
    -> WHERE city = 'Bangalore';
+----+------------+-----------+---------+-----------+-----------+--------+--------------+----------------+
| id | first_name | last_name | address | city      | state     | zip    | phone_number | email          |
+----+------------+-----------+---------+-----------+-----------+--------+--------------+----------------+
|  1 | John       | Doe       | MG Road | Bangalore | Karnataka | 560001 | 9999999999   | john@gmail.com |
+----+------------+-----------+---------+-----------+-----------+--------+--------------+----------------+
1 row in set (0.00 sec)

mysql>
```

UC7:

```
mysql> SELECT city, COUNT(*)
    -> FROM address_book
    -> GROUP BY city;
+-----------+----------+
| city      | COUNT(*) |
+-----------+----------+
| Bangalore |        1 |
| Mumbai    |        1 |
+-----------+----------+
2 rows in set (0.00 sec)

mysql> SELECT state, COUNT(*)
    -> FROM address_book
    -> GROUP BY state;
+-------------+----------+
| state       | COUNT(*) |
+-------------+----------+
| Karnataka   |        1 |
| Maharashtra |        1 |
+-------------+----------+
2 rows in set (0.00 sec)

mysql>
```

UC8:

```
mysql> SELECT *
    -> FROM address_book
    -> WHERE city = 'Bangalore'
    -> ORDER BY first_name ASC;
+----+------------+-----------+---------+-----------+-----------+--------+--------------+----------------+
| id | first_name | last_name | address | city      | state     | zip    | phone_number | email          |
+----+------------+-----------+---------+-----------+-----------+--------+--------------+----------------+
|  1 | John       | Doe       | MG Road | Bangalore | Karnataka | 560001 | 9999999999   | john@gmail.com |
+----+------------+-----------+---------+-----------+-----------+--------+--------------+----------------+
1 row in set (0.01 sec)

mysql>
```

UC9:

```
+----+-----------+-----------+----------+----------+-----------+-----------+--------+---
1 row in set (0.01 sec)

mysql> ALTER TABLE address_book
    -> ADD book_name VARCHAR(50),
    -> ADD book_type VARCHAR(50);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> UPDATE address_book
    -> SET book_name = 'PersonalBook', book_type = 'Friends'
    -> WHERE first_name = 'John';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> |
```

UC10:

```
mysql> SELECT book_type, COUNT(*)
    -> FROM address_book
    -> GROUP BY book_type;
+-----------+----------+
| book_type | COUNT(*) |
+-----------+----------+
| Friends   |        1 |
| NULL      |        1 |
+-----------+----------+
2 rows in set (0.00 sec)

mysql> |
```

UC11:

```
mysql> INSERT INTO address_book
    -> (first_name, last_name, address, city, state, zip, phone_number, email, book_name, book_type)
    -> VALUES
    -> ('Alex', 'Roy', 'BTM Layout', 'Bangalore', 'Karnataka', '560076', '9012345678', 'alex@gmail.com', 'PersonalBook', 'Friends'),
    -> ('Alex', 'Roy', 'BTM Layout', 'Bangalore', 'Karnataka', '560076', '9012345678', 'alex@gmail.com', 'PersonalBook', 'Family');
Query OK, 2 rows affected (0.02 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> |
```