Lab 4 Task 3 sample results

a. Present a report listing the names and student numbers of students with the details of their contracts, order by student surname.

SELECT s_no, f_name, l_name, contractNo, contractDate, duration, room_placeNo, dateIn, dateOut
FROM student, contract
WHERE student.s_no = contract.Student_s_no
ORDER BY s_no;

```
+------+---------+---------+------------+-------------+----------+--------------+------------+------------+
| s_no | f_name  | l_name  | contractNo | contractDate | duration | room_placeNo | dateIn     | dateOut    |
+------+---------+---------+------------+-------------+----------+--------------+------------+------------+
| S287 | San     | Zhang   | 102653     | 2018-09-01  |        3 | C301         | 2018-09-15 | 2019-08-01 |
| S287 | San     | Zhang   | 101089     | 2017-09-01  |        3 | S310         | 2017-09-05 | NULL       |
| S328 | Anne    | Martin  | 102796     | 2018-09-03  |        3 | H101         | 2018-09-10 | 2019-08-01 |
| S328 | Anne    | Martin  | 101176     | 2018-09-04  |        3 | R106         | 2017-09-10 | 2018-08-01 |
| S590 | John    | Doe     | 103523     | 2018-09-02  |        2 | G305         | 2018-09-10 | NULL       |
| S590 | John    | Doe     | 101468     | 2018-09-06  |        1 | E203         | 2017-09-15 | 2018-01-15 |
| S902 | Eduardo | Saverin | 102863     | 2018-09-05  |        2 | W603         | 2018-09-15 | 2019-06-01 |
+------+---------+---------+------------+-------------+----------+--------------+------------+------------+
7 rows in set (0.01 sec)
```

b. Display the details of contracts that include the Summer Semester.

SELECT * from contract
WHERE duration = 3;

```
+------------+-------------+----------+------------+------------+------------+------------+
| contractNo | contractDate | duration | Student_s_no | Room_placeNo | dateIn     | dateOut    |
+------------+-------------+----------+------------+------------+------------+------------+
| 101089     | 2017-09-01  |        3 | S287       | S310       | 2017-09-05 | NULL       |
| 101176     | 2018-09-04  |        3 | S328       | R106       | 2017-09-10 | 2018-08-01 |
| 102653     | 2018-09-01  |        3 | S287       | C301       | 2018-09-15 | 2019-08-01 |
| 102796     | 2018-09-03  |        3 | S328       | H101       | 2018-09-10 | 2019-08-01 |
+------------+-------------+----------+------------+------------+------------+------------+
4 rows in set (0.00 sec)
```

c. Display the total rent paid by John Doe.

SELECT sum(paymentDue)
FROM student, invoice
WHERE student.s_no = invoice.Student_s_no
AND f_name = "John"
AND l_name = "Doe"
AND paymentDate IS NOT NULL;

```
+----------------+
| sum(paymentDue) |
+----------------+
|           1000 |
+----------------+
1 row in set (0.01 sec)
```

d. Display the details of flat inspections where the property was found to be in an unsatisfactory condition.

SELECT * from inspection
WHERE satisfaction = "unsatisfactory";

```
+----------------+--------------+------------+----------------+------------------------------+
| Staff_staffNo  | Flat_flatNo  | date       | satisfaction   | comments                     |
+----------------+--------------+------------+----------------+------------------------------+
| 105            | W5           | 2019-02-02 | Unsatisfactory | Very messy and dirty kitchen |
+----------------+--------------+------------+----------------+------------------------------+
1 row in set (0.00 sec)
```

e. Present a report of the names and student numbers of students with their room number and place number in Hall Gryffindor.

SELECT s_no, f_name, l_name, roomNo, placeNo, Hall_hallName
FROM student, room, contract
WHERE student.s_no = contract.Student_s_no
AND room.placeNo = contract.Room_placeNo
AND room.Hall_hallName = "Gryffindor";

```
+------+--------+--------+--------+---------+---------------+
| s_no | f_name | l_name | roomNo | placeNo | Hall_hallName |
+------+--------+--------+--------+---------+---------------+
| S590 | John   | Doe    | 305    | G305    | Gryffindor    |
+------+--------+--------+--------+---------+---------------+
1 row in set (0.00 sec)
```

f. Display the minimum, maximum, and average monthly rent for rooms of each hall of residence, order by hall names.

SELECT Hall_hallName, min(monthlyRate), max(monthlyRate), avg(monthlyRate)
FROM room
WHERE Hall_hallName IS NOT NULL
GROUP BY Hall_hallName
ORDER BY Hall_hallName;

```
+---------------+------------------+------------------+------------------+
| Hall_hallName | min(monthlyRate) | max(monthlyRate) | avg(monthlyRate) |
+---------------+------------------+------------------+------------------+
| Gryffindor    |              100 |              200 |         133.3333 |
| Hufflepuff    |              100 |              150 |         137.5000 |
| Ravenclaw     |              120 |              150 |         130.0000 |
| Slytherin     |              200 |              300 |         233.3333 |
+---------------+------------------+------------------+------------------+
4 rows in set (0.02 sec)
```

g. Produce a report of unpaid invoices.

SELECT * from invoice
WHERE paymentDate IS NULL;

```
+------------+------------+-------------------+------------+----------+------------+-------------+---------------+--------------+---------------+
| invoiceNo  | Student_s_no | Contract_contractNo | issueDate  | semester | paymentDue | paymentDate | paymentMethod | firstReminder | secondReminder |
+------------+------------+-------------------+------------+----------+------------+-------------+---------------+--------------+---------------+
| 1108645819 | S590       | 103523            | 2019-02-05 |     2    |       1000 | NULL        | NULL          | 2018-02-20   | 2018-02-25    |
+------------+------------+-------------------+------------+----------+------------+-------------+---------------+--------------+---------------+
1 row in set (0.00 sec)
```

h. List the students whose payment method is cash.

SELECT * from invoice
WHERE paymentMethod = "Cash";

```
+------------+------------+-------------------+------------+----------+------------+-------------+---------------+--------------+---------------+
| invoiceNo  | Student_s_no | Contract_contractNo | issueDate  | semester | paymentDue | paymentDate | paymentMethod | firstReminder | secondReminder |
+------------+------------+-------------------+------------+----------+------------+-------------+---------------+--------------+---------------+
| 1009461218 | S328       | 101176            | 2018-07-05 |     3    |        300 | 2018-07-21  | Cash          | 2018-07-15   | 2018-07-20    |
| 1074121216 | S902       | 102863            | 2019-02-05 |     2    |        550 | 2019-02-10  | Cash          | NULL         | NULL          |
+------------+------------+-------------------+------------+----------+------------+-------------+---------------+--------------+---------------+
2 rows in set (0.00 sec)
```

i. What's the total income from all paid invoices so far for the current academic year (September 2018- August 2019)?

SELECT SUM(paymentDue)
FROM invoice
WHERE issueDate >= "2018-09-01"
AND issueDate<= "2019-08-31"
AND paymentDate IS NOT NULL;

```
+----------------+
| SUM(paymentDue) |
+----------------+
|           3300 |
+----------------+
1 row in set (0.00 sec)
```

j. Present a report of students that have paid their invoices within 10 days of the invoice being issues.

SELECT s_no, f_name, l_name, invoiceNo, Contract_contractNo, issueDate, paymentDate
FROM student, invoice
WHERE s_no = invoice.Student_s_no
AND DATEDIFF (paymentDate, issueDate) < 10;

```
+------+---------+---------+------------+---------------------+------------+-------------+
| s_no | f_name  | l_name  | invoiceNo  | Contract_contractNo | issueDate  | paymentDate |
+------+---------+---------+------------+---------------------+------------+-------------+
| S287 | San     | Zhang   | 1032549682 | 102653              | 2018-09-05 | 2018-09-14  |
| S902 | Eduardo | Saverin | 1065236521 | 102863              | 2018-09-05 | 2018-09-10  |
| S902 | Eduardo | Saverin | 1074121216 | 102863              | 2019-02-05 | 2019-02-10  |
+------+---------+---------+------------+---------------------+------------+-------------+
3 rows in set (0.00 sec)
```