**eProd Solutions – Programming internship**

**Guidelines for the assignment:**

* Total time to respond to the assignment is 60 minutes.
* Section A is mandatory and is needed to be able to continue to section B.
* Section B consists of 10 questions. Try to answer as many as you can. Do not be alarmed if you are not able to finish all within the 60 minutes timeframe.
* Please send a copy of your database (dmp) and this document with the SQL statements in MS Word to: [sharon@eprod-solutions.com](mailto:sharon@eprod-solutions.com)

***Note: responses that will be returned 60 minutes after sending of the email will not be considered for this selection process.***

**SECTION A: CREATE A MYSQL DATABASE**

Based on the attached MS Excel document (*MYSQL-EXERCISE.xls*), using your preferred MYSQL client, create a database called ORG. Run the following SQL queries:

CREATE TABLE Worker (

WORKER\_ID INT NOT NULL PRIMARY KEY AUTO\_INCREMENT,

FIRST\_NAME CHAR(25),

LAST\_NAME CHAR(25),

SALARY INT(15),

JOINING\_DATE DATETIME,

DEPARTMENT CHAR(25)

);

INSERT INTO Worker

(WORKER\_ID, FIRST\_NAME, LAST\_NAME, SALARY, JOINING\_DATE, DEPARTMENT) VALUES

(001, 'Monika', 'Arora', 100000, '14-02-20 09.00.00', 'HR'),

(002, 'Niharika', 'Verma', 80000, '14-06-11 09.00.00', 'Admin'),

(003, 'Vishal', 'Singhal', 300000, '14-02-20 09.00.00', 'HR'),

(004, 'Amitabh', 'Singh', 500000, '14-02-20 09.00.00', 'Admin'),

(005, 'Vivek', 'Bhati', 500000, '14-06-11 09.00.00', 'Admin'),

(006, 'Vipul', 'Diwan', 200000, '14-06-11 09.00.00', 'Account'),

(007, 'Satish', 'Kumar', 75000, '14-01-20 09.00.00', 'Account'),

(008, 'Geetika', 'Chauhan', 90000, '14-04-11 09.00.00', 'Admin');

CREATE TABLE Bonus (

WORKER\_REF\_ID INT,

BONUS\_AMOUNT INT(10),

BONUS\_DATE DATETIME,

FOREIGN KEY (WORKER\_REF\_ID)

REFERENCES Worker(WORKER\_ID)

ON DELETE CASCADE

);

INSERT INTO Bonus

(WORKER\_REF\_ID, BONUS\_AMOUNT, BONUS\_DATE) VALUES

(001, 5000, '16-02-20'),

(002, 3000, '16-06-11'),

(003, 4000, '16-02-20'),

(001, 4500, '16-02-20'),

(002, 3500, '16-06-11');

CREATE TABLE Title (

WORKER\_REF\_ID INT,

WORKER\_TITLE CHAR(25),

AFFECTED\_FROM DATETIME,

FOREIGN KEY (WORKER\_REF\_ID)

REFERENCES Worker(WORKER\_ID)

ON DELETE CASCADE

);

INSERT INTO Title

(WORKER\_REF\_ID, WORKER\_TITLE, AFFECTED\_FROM) VALUES

(001, 'Manager', '2016-02-20 00:00:00'),

(002, 'Executive', '2016-06-11 00:00:00'),

(008, 'Executive', '2016-06-11 00:00:00'),

(005, 'Manager', '2016-06-11 00:00:00'),

(004, 'Asst. Manager', '2016-06-11 00:00:00'),

(007, 'Executive', '2016-06-11 00:00:00'),

(006, 'Lead', '2016-06-11 00:00:00'),

(003, 'Lead', '2016-06-11 00:00:00');

**SECTION B: SQL QUERIES**

1. Write an SQL query to fetch “FIRST\_NAME” from Worker table in upper case.

**Answer:**

**SELECT**

**UPPER(FIRST\_NAME)**

**FROM**

**Worker;**

1. Write an SQL query to fetch unique values of DEPARTMENT from Worker table.

**Answer:**

SELECT DISTINCT

DEPARTMENT

FROM

Worker;

1. Write an SQL query that fetches the unique values of DEPARTMENT from Worker table and prints its length.

**Answer:**

**SELECT**

**COUNT(DISTINCT DEPARTMENT)**

**FROM**

**Worker**

1. Write an SQL query to print the FIRST\_NAME from Worker table after replacing ‘a’ with ‘A’.

**Answer:**

SELECT

REPLACE

(FIRST\_NAME, "a", "A")

FROM

Worker

1. Write an SQL query to print the FIRST\_NAME and LAST\_NAME from Worker table into a single column COMPLETE\_NAME. A space char should separate them.

**Answer:**

**SELECT**

**CONCAT(FIRST\_NAME, " ", LAST\_NAME) AS COMPLETE\_NAME**

**FROM**

**Worker**

1. Write an SQL query to print all Worker details from the Worker table order by FIRST\_NAME Ascending.

**Answer:**

SELECT

\*

FROM

Worker

ORDER BY

FIRST\_NAME ASC;

1. Write an SQL query to print all Worker details from the Worker table order by FIRST\_NAME Ascending and DEPARTMENT Descending.

**Answer:**

**SELECT**

**\***

**FROM**

**Worker**

**ORDER BY**

**FIRST\_NAME ASC,**

**DEPARTMENT**

**DESC**

1. Write an SQL query to print details of Workers with DEPARTMENT name as “Admin”.

**Answer:**

SELECT

\*

FROM

Worker

WHERE DEPARTMENT = "Admin"

1. Write an SQL query to print details of the Workers whose FIRST\_NAME contains ‘a’.

**Answer:**

SELECT

\*

FROM

Worker

WHERE

FIRST\_NAME LIKE "%a%";

1. Write an SQL query to fetch the names of workers who earn the highest salary.

**Answer:**

**SELECT**

**\***

**FROM**

**Worker**

**WHERE**

**SALARY =(**

**SELECT**

**MAX(SALARY)**

**FROM**

**Worker**

**)**