1)

Code:

```
DROP TABLE IF EXISTS w5q1_co;
CREATE DATABASE w5q1_co;
USE w5q1_co;

CREATE TABLE Employee (
        Emp_No INT,
   Emp_Name VARCHAR(30),
   sex VARCHAR(10),
   Salary INT,
   Address VARCHAR(100),
   Dept_No INT
);
INSERT INTO Employee VALUES
        (26, 'Simon L Messerly', 'male', 41000, '4971, Hillcrest Lane, Moreno Valley, California', 291),
   (29, 'Leroy A Preston', 'male', 104000, '1034 Lyon Avenue, Framingham, Massachusetts', 170),
   (56, 'Juanita J Tomlin', 'female', 53000, '2101 Hedge Street, Branchburg, New Jersey', 817),
   (60, 'William J Welton', 'male', 26000, '1475 Sundown Lane, Austin, Texas', 752),
   (25, 'Dianne P Saulsbury', 'female', 53000, '4089 Bernardo Street, Polk City, Florida', 868),
   (34, 'Amy I Taylor', 'female', 57000, '2946 Meadowbrook Mall Road, Playa Del Rey, California',
291),
   (40, 'Keith J Williams', 'male', 41000, '936 Clousson Road, HACKENSACK, New Jersey', 817),
   (22, 'Homer K Linger', 'male', 77000, '4626 Larry Street, NOVELTY, Missouri', 623),
   (66, 'Helga J Beck', 'female', 71000, '3904 Metz Lane, Cambridge, Massachusetts', 170),
   (36, 'William S Burnett', 'male', 50000, '3409 Emily Renzelli Boulevard, Salinas, California', 291);



CREATE TABLE Department (
        Dept_No INT,
```

```
    Dept_Name VARCHAR(20),
    Location VARCHAR(20)
);
INSERT INTO Department VALUES
        (170, 'Technology', 'Massachusetts'),
    (291, 'Entertainment', 'California'),
    (752, 'Agriculture', 'Texas'),
    (817, 'Sales', 'New Jersey'),
    (623, 'Medical', 'Missouri'),
    (868, 'Tourism', 'Florida');
```

```
-- DROP DATABASE w5q1_co;
```

Input:

➔ Employee Table

Emp_No	Emp_Name	sex	Salary	Address	Dept_No
26	Simon L Messerly	male	41000	4971, Hillcrest Lane, Moreno Valley, California	291
29	Leroy A Preston	male	104000	1034 Lyon Avenue, Framingham, Massachusetts	170
56	Juanita J Tomlin	female	53000	2101 Hedge Street, Branchburg, New Jersey	817
60	William J Welton	male	26000	1475 Sundown Lane, Austin, Texas	752
25	Dianne P Saulsbury	female	53000	4089 Bernardo Street, Polk City, Florida	868
34	Amy I Taylor	female	57000	2946 Meadowbrook Mall Road, Playa Del Rey, C...	291
40	Keith J Williams	male	41000	936 Clousson Road, HACKENSACK, New Jersey	817
22	Homer K Linger	male	77000	4626 Larry Street, NOVELTY, Missouri	623
66	Helga J Beck	female	71000	3904 Metz Lane, Cambridge, Massachusetts	170
36	William S Burnett	male	50000	3409 Emily Renzelli Boulevard, Salinas, California	291

➔ Department Table

Dept_No	Dept_Name	Location
170	Technology	Massachusetts
291	Entertainment	California
752	Agriculture	Texas
817	Sales	New Jersey
623	Medical	Missouri
868	Tourism	Florida

Queries & Outputs:

-- 1a) Write a procedure to display employee details given the Emp_No.

```
-- CREATE PROCEDURE disp_emp(IN eno INT)
-- SELECT * FROM Employee
--    WHERE Emp_no = eno;
-- CALL disp_emp(60);

DELIMITER //
DROP PROCEDURE IF EXISTS show_emp//
CREATE PROCEDURE show_emp (IN eno INT)
BEGIN
SELECT * FROM Employee WHERE Emp_No = eno;
END//
DELIMITER ;
CALL show_emp(60);
```

	Emp_No	Emp_Name	sex	Salary	Address	Dept_No
▶	60	William J Welton	male	26000	1475 Sundown Lane, Austin, Texas	752

-- 1b) Write a procedure to delete an employee record given the Emp_Name.

```
DELIMITER //
DROP PROCEDURE IF EXISTS del_emp//
CREATE PROCEDURE del_emp(IN ename VARCHAR(30))
BEGIN
        DELETE FROM Employee
   WHERE Emp_name = ename;
END//
DELIMITER ;
CALL del_emp('William S Burnett');
```

SELECT * FROM Employee;

Emp_No	Emp_Name	sex	Salary	Address	Dept_No
26	Simon L Messerly	male	41000	4971, Hillcrest Lane, Moreno Valley, California	291
29	Leroy A Preston	male	104000	1034 Lyon Avenue, Framingham, Massachusetts	170
56	Juanita J Tomlin	female	53000	2101 Hedge Street, Branchburg, New Jersey	817
60	William J Welton	male	26000	1475 Sundown Lane, Austin, Texas	752
25	Dianne P Saulsbury	female	53000	4089 Bernardo Street, Polk City, Florida	868
34	Amy I Taylor	female	57000	2946 Meadowbrook Mall Road, Playa Del Rey, C...	291
40	Keith J Williams	male	41000	936 Clousson Road, HACKENSACK, New Jersey	817
22	Homer K Linger	male	77000	4626 Larry Street, NOVELTY, Missouri	623
66	Helga J Beck	female	71000	3904 Metz Lane, Cambridge, Massachusetts	170

-- 1c) Write a procedure to list all the employee names belonging to a particular department given

-- the Dept_No.

```
DELIMITER //
DROP PROCEDURE IF EXISTS disp_emp_dept//
CREATE PROCEDURE disp_emp_dept(IN dept INT)
BEGIN
        SELECT * FROM Employee
  WHERE Dept_No = dept;
END//
DELIMITER ;
CALL disp_emp_dept(170);
```

Emp_No	Emp_Name	sex	Salary	Address	Dept_No
29	Leroy A Preston	male	104000	1034 Lyon Avenue, Framingham, Massachusetts	170
66	Helga J Beck	female	71000	3904 Metz Lane, Cambridge, Massachusetts	170

-- 1d) Write a procedure to display the number of employees whose salary is greater than 30K.

```
DELIMITER //
DROP PROCEDURE IF EXISTS sal_30k//
CREATE PROCEDURE sal_30k(OUT numEmp INT)
BEGIN
```

```
        SELECT COUNT(Emp_No) INTO numEmp FROM Employee
   WHERE Salary > 30E3;
END//
DELIMITER ;
CALL sal_30k(@N);
SELECT @N as Num_Of_Employees;
```

	Num_Of_Employees
▶	8

2)

Code:

```
DROP DATABASE IF EXISTS w5q2_sasalele;
CREATE DATABASE w5q2_sasalele;
USE w5q2_sasalele;

CREATE TABLE Customer(
        customer_id int,
        cust_name varchar(50),
        city varchar(25),
        grade int,
        salesman_id int
);
INSERT INTO Customer(customer_id, cust_name, city, grade, salesman_id) VALUES
        (3002, 'Nick Rimando', 'New York', 100, 5001),
        (3007, 'Brad Davis', 'New York', 200, 5001),
        (3005, 'Graham Zusi', 'California', 200, 5002),
        (3008, 'Julian Green', 'London', 300, 5002),
        (3004, 'Fabian Johnson', 'Paris', 300, 5006),
```

```
        (3009, 'Geoff Cameron', 'Berlin', 100, 5003),
        (3003, 'Jozy Altidor', 'Moscow', 200, 5007),
        (3001, 'Brad Guzan', 'London', 300, 5005);

CREATE TABLE Orders(
   ord_no int,
   purch_amt double,
   ord_date date,
   salesman_id int,
   customer_id int
);
INSERT INTO Orders(ord_no,purch_amt,ord_date,customer_id,salesman_id) VALUES
        (70001, 150.5, '2012-10-05', 3005, 5002),
        (70009, 270.65, '2012-09-10', 3001, 5005),
        (70002, 65.26, '2012-10-05', 3002, 5001),
        (70004, 110.5, '2012-08-17', 3009, 5003),
        (70007, 948.5, '2012-09-10', 3005, 5002),
        (70005, 2400.6, '2012-07-27', 3007, 5001),
        (70008, 5760, '2012-09-10', 3002, 5001),
        (70010, 1983.43, '2012-10-10', 3004, 5006),
        (70003, 2480.4, '2012-10-10', 3009, 5003),
        (70012, 250.45, '2012-06-27', 3008, 5002),
        (70011, 75.29, '2012-08-17', 3003, 5007),
        (70013, 3045.6, '2012-04-25', 3002, 5001);



-- DROP DATABASE w5q2_sasalele;
```

Table:

➔ Customer Table

customer_id	cust_name	city	grade	salesman_id
3002	Nick Rimando	New York	100	5001
3007	Brad Davis	New York	200	5001
3005	Graham Zusi	California	200	5002
3008	Julian Green	London	300	5002
3004	Fabian Johnson	Paris	300	5006
3009	Geoff Cameron	Berlin	100	5003
3003	Jozy Altidor	Moscow	200	5007
3001	Brad Guzan	London	300	5005

➔ Orders Table

ord_no	purch_amt	ord_date	salesman_id	customer_id
70001	150.5	2012-10-05	5002	3005
70009	270.65	2012-09-10	5005	3001
70002	65.26	2012-10-05	5001	3002
70004	110.5	2012-08-17	5003	3009
70007	948.5	2012-09-10	5002	3005
70005	2400.6	2012-07-27	5001	3007
70008	5760	2012-09-10	5001	3002
70010	1983.43	2012-10-10	5006	3004
70003	2480.4	2012-10-10	5003	3009
70012	250.45	2012-06-27	5002	3008
70011	75.29	2012-08-17	5007	3003
70013	3045.6	2012-04-25	5001	3002

Queries & Outputs:

-- 2a) Use SQL functions to find the highest purchaseamount ordered by each customer with theirID and highest purchase amount.

```
DELIMITER //

CREATE FUNCTION max_purch_amt(c_id int)

RETURNS DECIMAL(10,2) DETERMINISTIC

BEGIN

  DECLARE max_amt DECIMAL(10,2);

  SELECT MAX(purch_amt) INTO max_amt FROM Orders WHERE customer_id = c_id;

  RETURN max_amt;
```

```
END //
DELIMITER ;
SELECT customer_id, max_purch_amt(customer_id) FROM Orders GROUP BY customer_id;
```

customer_id	max_purch_amt(customer_id)
3001	270.65
3002	5760.00
3003	75.29
3004	1983.43
3005	948.50
3007	2400.60
3008	250.45
3009	2480.40

```
-- 2b) Use SQL functions to find the number of customers in each city
DELIMITER //
DROP FUNCTION IF EXISTS cust_per_city//
CREATE FUNCTION cust_per_city(city_name VARCHAR(20))
RETURNS INT DETERMINISTIC
BEGIN
  DECLARE CNT INT;
  -- SET CNT = 0;
  SELECT COUNT(*) INTO CNT FROM Customer WHERE city = city_name;
  RETURN CNT;
END //
DELIMITER ;
SELECT city, cust_per_city(city) FROM Customer GROUP BY city;
```

city	cust_per_city(city)
Berlin	1
California	1
London	2
Moscow	1
New York	2
Paris	1

-- 2c) Write a user defined function to display customer details given the customer_id.

```
DELIMITER //
DROP PROCEDURE IF EXISTS disp_cust_info //
CREATE PROCEDURE disp_cust_info(IN customer_id_in INT)
BEGIN
   SELECT * FROM Customer WHERE customer_id = customer_id_in;
END //
DELIMITER ;
CALL disp_cust_info(3002);
```

customer_id	cust_name	city	grade	salesman_id
3002	Nick Rimando	New York	100	5001

-- 2d) Write a user defined function to decrease the purch_amt of an order by 5% given the ord_no.

```
DELIMITER //
DROP FUNCTION IF EXISTS dec_purch_amt //
CREATE FUNCTION dec_purch_amt(orderno INT)
RETURNS DOUBLE DETERMINISTIC
BEGIN
 DECLARE purch_amt_new DOUBLE;
 SELECT purch_amt INTO purch_amt_new FROM Orders WHERE ord_no = orderno;
 RETURN (purch_amt_new * 0.95);
END //
DELIMITER ;
UPDATE Orders SET purch_amt = dec_purch_amt(ord_no) WHERE ord_no = 70001;
SELECT * FROM Orders;
```

ord_no	purch_amt	ord_date	salesman_id	customer_id
70001	142.975	2012-10-05	5002	3005
70009	270.65	2012-09-10	5005	3001
70002	65.26	2012-10-05	5001	3002
70004	110.5	2012-08-17	5003	3009
70007	948.5	2012-09-10	5002	3005
70005	2400.6	2012-07-27	5001	3007
70008	5760	2012-09-10	5001	3002
70010	1983.43	2012-10-10	5006	3004
70003	2480.4	2012-10-10	5003	3009
70012	250.45	2012-06-27	5002	3008
70011	75.29	2012-08-17	5007	3003
70013	3045.6	2012-04-25	5001	3002