1. .

```sql
CREATE TABLE products_tbl (
    PROD_ID INT,
    PROD_DESC VARCHAR(50),
    COST DECIMAL(10,2)
);

INSERT INTO products_tbl (PROD_ID, PROD_DESC, COST) VALUES
(11235, 'WITCH COSTUME', 29.99),
(222, 'PLASTIC PUMPKIN 18 INCH', 7.75),
(13, 'FALSE PARAFFIN TEETH', 1.1),
(90, 'LIGHTED LANTERNS', 14.5),
(15, 'ASSORTED COSTUMES', 10.00),
(19, 'CANDY CORN', 1.35),
(6, 'PUMPKIN CANDY', 1.45),
(87, 'PLASTIC SPIDERS', 1.05),
(119, 'ASSORTED MASKS', 4.95);
```

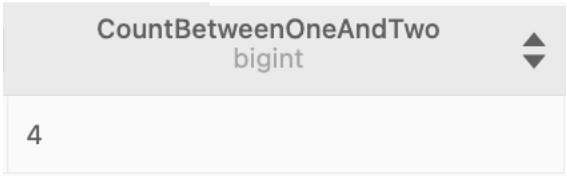
a. QUERY - SELECT * FROM products_tbl;

PROD_ID int	PROD_DESC varchar(50)	COST decimal(10,2)
11235	WITCH COSTUME	29.99
222	PLASTIC PUMPKIN 18 INCH	7.75
13	FALSE PARAFFIN TEETH	1.10
90	LIGHTED LANTERNS	14.50
15	ASSORTED COSTUMES	10.00
19	CANDY CORN	1.35
6	PUMPKIN CANDY	1.45
87	PLASTIC SPIDERS	1.05
119	ASSORTED MASKS	4.95

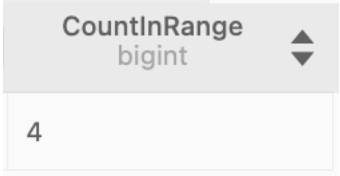
2.

a. SELECT AVG(COST) AS AverageCost FROM products_tbl;

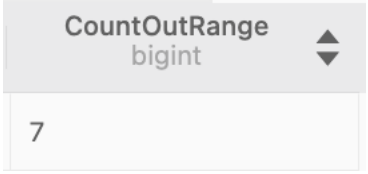
b. SELECT COUNT(*) AS CountBetweenOneAndTwo FROM products_tbl WHERE COST > 1 AND COST < 2;



c. SELECT COUNT(*) AS CountInRange FROM products_tbl WHERE (COST BETWEEN 10 AND 15) OR (COST BETWEEN 3 AND 8);

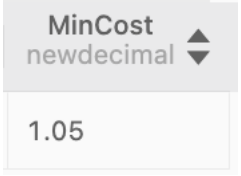


d. SELECT COUNT(*) AS CountOutRange FROM products_tbl WHERE COST < 5 OR COST > 10;



e. SELECT MAX(COST) AS MaxCost FROM products_tbl;

f. SELECT MIN(COST) AS MinCost FROM products_tbl;



g. `SELECT SUM(COST) AS TotalCost FROM products_tbl;`

TotalCost newdecimal
72.14

h. `SELECT ROUND(COST) AS NEAREST_INTEGER_COST FROM products_tbl;`

NEAREST_INTEGER_COST newdecimal
30
8
1
15
10
1
1
1
5

i. `SELECT TRUNCATE(COST, 0) AS TruncatedCost FROM products_tbl;`

TruncatedCost newdecimal
29
7
1
14
10
1
1
1
4

j. SELECT PROD_ID FROM products_tbl WHERE LENGTH(PROD_ID) IN (5, 3);

PROD_ID int
11235
222
119

3. .

a.

```
ALTER TABLE products_tbl ADD COLUMN STORES VARCHAR(50);

UPDATE products_tbl SET STORES = 'PARTY CITY' WHERE PROD_ID = 11235;
UPDATE products_tbl SET STORES = 'TOYS R US' WHERE PROD_ID = 222;
UPDATE products_tbl SET STORES = 'WALGREENS' WHERE PROD_ID = 13;
UPDATE products_tbl SET STORES = 'WALMART' WHERE PROD_ID = 90;
UPDATE products_tbl SET STORES = 'COSTCO' WHERE PROD_ID = 15;
UPDATE products_tbl SET STORES = 'SAFEWAY' WHERE PROD_ID = 19;
UPDATE products_tbl SET STORES = "TRADER JOE'S" WHERE PROD_ID = 6;
UPDATE products_tbl SET STORES = 'DOLLAR TREE' WHERE PROD_ID = 87;
UPDATE products_tbl SET STORES = 'TARGET' WHERE PROD_ID = 119;
```

b. SELECT * FROM products_tbl;

PROD_ID int	PROD_DESC varchar(50)	COST decimal(10,2)	STORES varchar(50)
11235	WITCH COSTUME	29.99	PARTY CITY
222	PLASTIC PUMPKIN 18 INCH	7.75	TOYS R US
13	FALSE PARAFFIN TEETH	1.10	WALGREENS
90	LIGHTED LANTERNS	14.50	WALMART
15	ASSORTED COSTUMES	10.00	COSTCO
19	CANDY CORN	1.35	SAFEWAY
6	PUMPKIN CANDY	1.45	TRADER JOE'S
87	PLASTIC SPIDERS	1.05	DOLLAR TREE
119	ASSORTED MASKS	4.95	TARGET

4. .

a. `SELECT STORES FROM products_tbl WHERE STORES LIKE 'W%';`

STORES varchar(50)
WALGREENS
WALMART

b. `SELECT STORES FROM products_tbl WHERE STORES LIKE 'T%';`

STORES varchar(50)
TOYS R US
TRADER JOE'S
TARGET

c. `SELECT STORES FROM products_tbl WHERE STORES LIKE '%O%';`

STORES varchar(50)
TOYS R US
COSTCO
TRADER JOE'S
DOLLAR TREE

d. `SELECT STORES FROM products_tbl WHERE LENGTH(STORES) > 10;`

STORES varchar(50)
TRADER JOE'S
DOLLAR TREE

e. `SELECT STORES FROM products_tbl WHERE STORES LIKE '%Y%';`

STORES varchar(50)
PARTY CITY
TOYS R US
SAFEWAY

f. `SELECT STORES FROM products_tbl WHERE STORES LIKE '%AL%';`

STORES varchar(50)
WALGREENS
WALMART

5. .

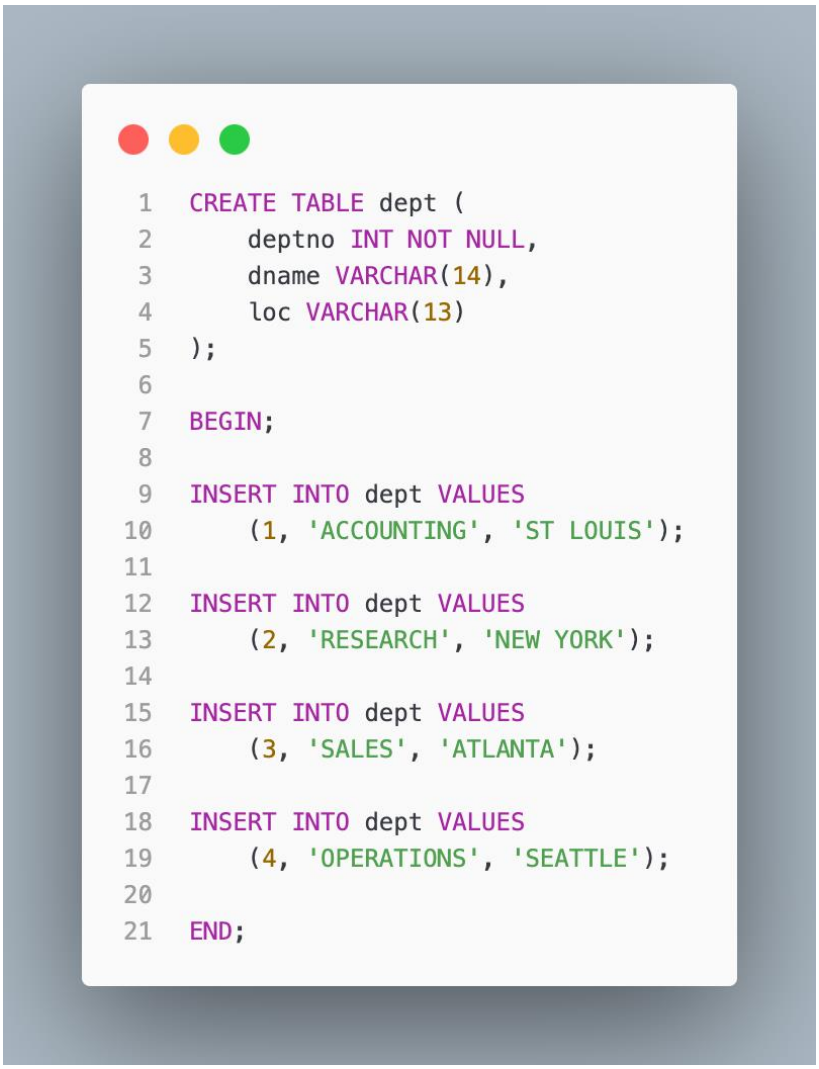
```sql
CREATE TABLE emp (
    empno INT PRIMARY KEY,
    ename VARCHAR(10),
    job VARCHAR(9),
    mgr INT NULL,
    hiredate DATE,
    sal NUMERIC(7,2),
    comm NUMERIC(7,2) NULL,
    dept INT
);

BEGIN;

INSERT INTO emp VALUES
    (1, 'JOHNSON', 'ADMIN', 6, '1990-12-17', 18000, NULL, 4);

INSERT INTO emp VALUES
    (2, 'HARDING', 'MANAGER', 9, '1998-02-02', 52000, 300, 3);

INSERT INTO emp VALUES
    (3, 'TAFT', 'SALES', 1, '1996-01-02', 25000, 500, 3);

INSERT INTO emp VALUES
    (4, 'HOOVER', 'SALES', 1, '1990-04-02', 27000, NULL, 3);

INSERT INTO emp VALUES
    (5, 'LINCOLN', 'TECH', 6, '1994-03-06', 22500, 1400, 4);

INSERT INTO emp VALUES
    (6, 'GARFIELD', 'MANAGER', 9, '1993-05-01', 54000, NULL, 4);

INSERT INTO emp VALUES
    (7, 'POLK', 'TECH', 6, '1997-09-22', 25000, NULL, 4);

INSERT INTO emp VALUES
    (8, 'GRANT', 'ENGINEER', 10, '1997-03-30', 32000, NULL, 2);

INSERT INTO emp VALUES
    (9, 'JACKSON', 'CEO', NULL, '1990-01-01', 75000, NULL, 4);

INSERT INTO emp VALUES
    (10, 'FILLMORE', 'MANAGER', 9, '1994-08-09', 56000, NULL, 2);

INSERT INTO emp VALUES
    (11, 'ADAMS', 'ENGINEER', 10, '1996-03-15', 34000, NULL, 2);

INSERT INTO emp VALUES
    (12, 'WASHINGTON', 'ADMIN', 6, '1998-04-16', 18000, NULL, 4);

INSERT INTO emp VALUES
    (13, 'MONROE', 'ENGINEER', 10, '2000-12-03', 30000, NULL, 2);

INSERT INTO emp VALUES
    (14, 'ROOSEVELT', 'CPA', 9, '1995-10-12', 35000, NULL, 1);


END;
```

a. `SELECT * FROM emp;`

* empno int	ename varchar(10)	job varchar(9)	mgr int	hiredate date	sal decimal(7,2)	comm decimal(7,2)	dept int
1	JOHNSON	ADMIN	6	1990-12-17	18000.00	(NULL)	4
2	HARDING	MANAGER	9	1998-02-02	52000.00	300.00	3
3	TAFT	SALES	1	1996-01-02	25000.00	500.00	3
4	HOOVER	SALES	1	1990-04-02	27000.00	(NULL)	3
5	LINCOLN	TECH	6	1994-03-06	22500.00	1400.00	4
6	GARFIELD	MANAGER	9	1993-05-01	54000.00	(NULL)	4
7	POLK	TECH	6	1997-09-22	25000.00	(NULL)	4
8	GRANT	ENGINEER	10	1997-03-30	32000.00	(NULL)	2
9	JACKSON	CEO	(NULL)	1990-01-01	75000.00	(NULL)	4
10	FILLMORE	MANAGER	9	1994-08-09	56000.00	(NULL)	2
11	ADAMS	ENGINEER	10	1996-03-15	34000.00	(NULL)	2
12	WASHINGTON	ADMIN	6	1998-04-16	18000.00	(NULL)	4
13	MONROE	ENGINEER	10	2000-12-03	30000.00	(NULL)	2
14	ROOSEVELT	CPA	9	1995-10-12	35000.00	(NULL)	1

6. .

a.



```sql
CREATE TABLE dept (
    deptno INT NOT NULL,
    dname VARCHAR(14),
    loc VARCHAR(13)
);

BEGIN;

INSERT INTO dept VALUES
    (1, 'ACCOUNTING', 'ST LOUIS');

INSERT INTO dept VALUES
    (2, 'RESEARCH', 'NEW YORK');

INSERT INTO dept VALUES
    (3, 'SALES', 'ATLANTA');

INSERT INTO dept VALUES
    (4, 'OPERATIONS', 'SEATTLE');

END;
```

b. `SELECT * FROM dept;`

* deptno int	dname varchar(14)	loc varchar(13)
1	ACCOUNTING	ST LOUIS
2	RESEARCH	NEW YORK
3	SALES	ATLANTA
4	OPERATIONS	SEATTLE