

Ace Cassidy CPTS451 HW5 Spring'20

Question 1

- a. Create a table “MySales “ in the database and load the data from the provided file into that table (use PostgreSQL). Please refer to the Milestone-1 description for instructions on how to import a .csv file in PostgreSQL.

```
CREATE TABLE mysales(  
  pname VARCHAR,  
  category VARCHAR,  
  price INT,  
  discount INT,  
  month VARCHAR);
```

```
\copy mysales(pname,category,price,discount,month) FROM 'salesData.csv' DELIMITER ',' CSV
```

- b. You find the following FDs in sales data:

- pname, category -> price
- month->discount

Write two SQL queries which will verify that these FDs hold on the sales data.

```
SELECT pname, category  
FROM mysales  
GROUP BY (pname, category)  
HAVING COUNT (DISTINCT price) > 1;
```

```
SELECT month  
FROM mysales  
GROUP BY month  
HAVING COUNT (DISTINCT discount) > 1;
```

- c. Decompose the table to BCNF relations and create SQL tables for the decomposed schema. Show your work. Create primary keys and foreign keys where appropriate. Turn in the SQL commands for creating the tables