SQL Lab I

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The purpose of this lab will be to create two tables and insert some sample data to get some experience with various constraints. You'll be using `psql` as your PostgreSQL client.

1. If you haven't already done so, create a database using your login name for the database name and connect to it.

2. Create the table `Flavors` with the following schema:

Attribute Name	Domain	Comment
`Code`	`CHAR(5)`	Primary key
`Name`	`CHAR(30)`	Candidate key
`SoldBy`	`CHAR(7)`	`PSU` or `Moxleys`
`Descr`	`CHAR(100)`	`NOT NULL`

   It may take a few tries to get the syntax down, so create the SQL statement in a text file and use `\i <file>` in `psql` to execute it.

3. Create the table `People` with the following schema:

Attribute Name	Domain	Comment
`Name`	`CHAR(50)`	Primary key
`Age`	`INTEGER`	`DEFAULT '29'`
`IceCream`	`CHAR(5)`	Foreign key of `Flavors (Code)`

   Use `\i` again.

4. Remember the SQL statement to view the contents of a table:

```
SELECT * FROM <table_name>;
```

   You'll need this to examine the results of your experiments.

5. Try to populate `People`:

```
INSERT INTO People (Name, IceCream) VALUES ('Tom', 'Mint');
```

   What happened? Why?

6. Populate `Flavors`:

```
INSERT INTO Flavors VALUES ('Mint', 'Bittersweet Mint', 'PSU',
'The best flavor in the whole world.');
```

   What's the syntax difference between this insert and the previous insert? Why the variants?

7. Repeat the first insert. Success, yes?

8. Insert a couple more rows into each of the tables.

9. Test the other constraints:

   (a) Try to enter rows with duplicate `Code` and `Name` attributes into `Flavors`.

   (b) Try to enter a row with a `SoldBy` attribute of `'DQ'`.

   (c) Try to enter a row without a `Descr`.

   (d) Enter a row into `People` with a missing `Age`.

10. Drop your two tables:

```
DROP TABLE People;
DROP TABLE Flavors;
```

    Use `\q` to exit `psql`.