

Task 1

To Do

- CQL commands:

```
CREATE KEYSPACE IF NOT EXISTS inventory WITH REPLICATION =
{'class' : 'SimpleStrategy', 'replication_factor': 1}
/* Create a KEYSPACE in Cassandra if the keyspace name does not exist.
 * To simplify, we will just use simple strategy and use only 1 replication factor. */
use inventory; /* switch to 'inventory' keyspace */
CREATE TABLE IF NOT EXISTS parts (
part_number text, description text, compatibility set<text>, price int,
manufacturer text, PRIMARY KEY((part_number), price));
/* create a parts table */
INSERT INTO parts (part_number, description, compatibility, price, manufacturer)
VALUES ('FRU324534', '128G NVMe PCIe M.2 SSD', {'W540', 'W541'}, 127, 'Samsung')
IF NOT EXISTS;
INSERT INTO parts (part_number, description, compatibility, price, manufacturer)
VALUES ('FRU235123', '2133MHz DDR3 16GB Memory', {'DIMM'}, 70, 'Samsung') IF NOT EXISTS;
INSERT INTO parts (part_number, description, compatibility, price, manufacturer)
VALUES ('FRU235123', '2133MHz DDR3 16GB Memory', {'DIMM'}, 65, 'Corsair') IF NOT EXISTS;
INSERT INTO parts (part_number, description, compatibility, price, manufacturer)
VALUES ('FRU385271', 'DVD-ROM', {'T530', 'T540', 'W540'}, 30, 'Lenovo') IF NOT EXISTS;
/* insert data into part table */
/* This is how parts table looks like */
part_number | compatibility | description | manufacturer | price
-----+-----+-----+-----+-----
FRU235123 | {'DIMM'} | 2133MHz DDR3 16GB Memory | Samsung | 70
FRU235123 | {'DIMM'} | 2133MHz DDR3 16GB Memory | Corsair | 65
FRU385271 | {'T530', 'T540', 'W540'} | DVD-ROM | Lenovo | 30
FRU324534 | {'W540', 'W541'} | 128G NVMe PCIe M.2 SSD | Samsung | 127

CREATE TABLE IF NOT EXISTS manufacturers
(name text, home_page_url text, NASDAQ_code text, customer_service_number text,
PRIMARY KEY(name));
/* create manufacturers table */
INSERT INTO manufacturers (name, home_page_url, NASDAQ_code, customer_service_number)
VALUES ('Samsung', 'http://www.samsung.com/us/', 'SSNLF', '800-726-7864') IF NOT EXISTS;
INSERT INTO manufacturers (name, home_page_url, NASDAQ_code, customer_service_number)
VALUES ('Corsair', 'http://www.corsair.com/en-us', 'CRSR', '888-222-4346') IF NOT EXISTS;
INSERT INTO manufacturers (name, home_page_url, NASDAQ_code, customer_service_number)
VALUES ('Lenovo', 'http://www.lenovo.com/us/en/', 'LNVGY', '855-253-6686') IF NOT EXISTS;
/* insert manufacturers' information into manufacturers table */
```

```
SELECT * FROM manufacturers
```

```
/* show all manufacuters' info */
```

name	customer_service_number	home_page_url	nasdaq_code
Corsair	888-222-4346	http://www.corsair.com/en-us	CRSR
Samsung	800-726-7864	http://www.samsung.com/us/	SSNLF
Lenovo	855-253-6686	http://www.lenovo.com/us/en/	LNVGY

- Search by manufacturer name

```
/* In order to search a non-primary key, you need to create an index on the column */
```

```
CREATE INDEX IF NOT EXISTS parts_manu ON parts (manufacturer);
```

```
CREATE INDEX IF NOT EXISTS ON parts (price);
```

```
/* retrieve all parts info produced by Samsung */
```

```
SELECT * FROM parts where manufacturer = 'Samsung' ;
```

part_number	compatibility	description	manufacturer	price
FRU235123	{'DIMM'}	2133MHz DDR3 16GB Memory	Samsung	70
FRU324534	{'W540', 'W541'}	128G NVMe PCIe M.2 SSD	Samsung	127

- Sort by price in descending order for a particular part

```
SELECT * FROM parts WHERE part_number = 'FRU235123' ORDER BY price DESC;
```

part_number	price	compatibility	description	manufacturer
FRU235123	70	{'DIMM'}	2133MHz DDR3 16GB Memory	Samsung
FRU235123	65	{'DIMM'}	2133MHz DDR3 16GB Memory	Corsair