

Exercise 1

Total cost that take to fetch the data using command:

```
EXPLAIN SELECT * FROM public.customer
```

Output:

```
Seq Scan on customer (cost=0.00..4034.00 rows=100000 width=211)
```

For 3 different query:

1)

```
EXPLAIN ANALYZE SELECT *  
FROM public.customer  
WHERE id>10 AND id<100;
```

```
Seq Scan on customer (cost=0.00..328.00 rows=90 width=211)
```

2)

```
EXPLAIN SELECT *  
FROM public.customer  
WHERE name = 'Jason Lopez';
```

```
Seq Scan on customer (cost=0.00..4534.00 rows=2 width=211)
```

3)

```
EXPLAIN SELECT *  
FROM public.customer  
WHERE address = 'USS Myers';
```

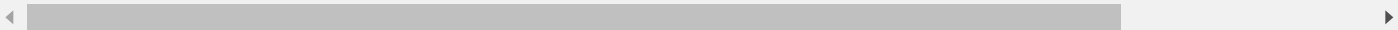
```
Seq Scan on customer (cost=0.00..4784.00 rows=1 width=211)
```

Creating name index by following command:

```
CREATE INDEX idx_customer_name ON customer(name)
```

Afer Indexing: 1)

```
Index Scan using customer_pkey on customer (cost=0.29..12.16 rows=87 width=211) (actual time=0.009..
```



2)

```
-> Bitmap Index Scan on idx_customer_name (cost=0.00..4.43 rows=2 width=0)
```

3)

```
Index Scan using idx_customer_address on customer (cost=0.42..8.44 rows=1 width=211)
```

