

## INDEXING

In the restaurant database we have two applications,

1)Admin – Handles INSERT, UPDATE, DELETE commands which are exercised by the administrator.

2)User- Aims to handle various SELECT QUERIES which require indexing to provide quicker memory access.

MySQL uses B+ tree as its standard mode of indexing and all the primary keys are indexed by default. For Example, *employee\_id* is indexed automatically in **employee\_list** table and *chef\_id* is indexed from **chef\_details** since they are PRIMARY KEYS.

Besides this, we have created the following indices

- Create index cust\_emp on place\_order ( customer\_id, employee\_id);

This is useful for the query:

```
Select order_id from place_order where  
Customer_id= “ ?” and employee_id=”?”;
```

This query aims to find the order\_id, given the customer\_id and employee\_id. Hence, indexing the customer\_id and employee\_id, which are both foreign key attributes, can speed up the process of retrieval.

- Create Index ph\_no on customer\_list(phone\_no);

This is useful for the query:

```
select * from customer_list where phone_no=' +number +';
```

This query aims to find the customer details given the Phone number. Hence, Indexing the Phone\_no, which is a non-key attribute, can speed up the process of retrieval.