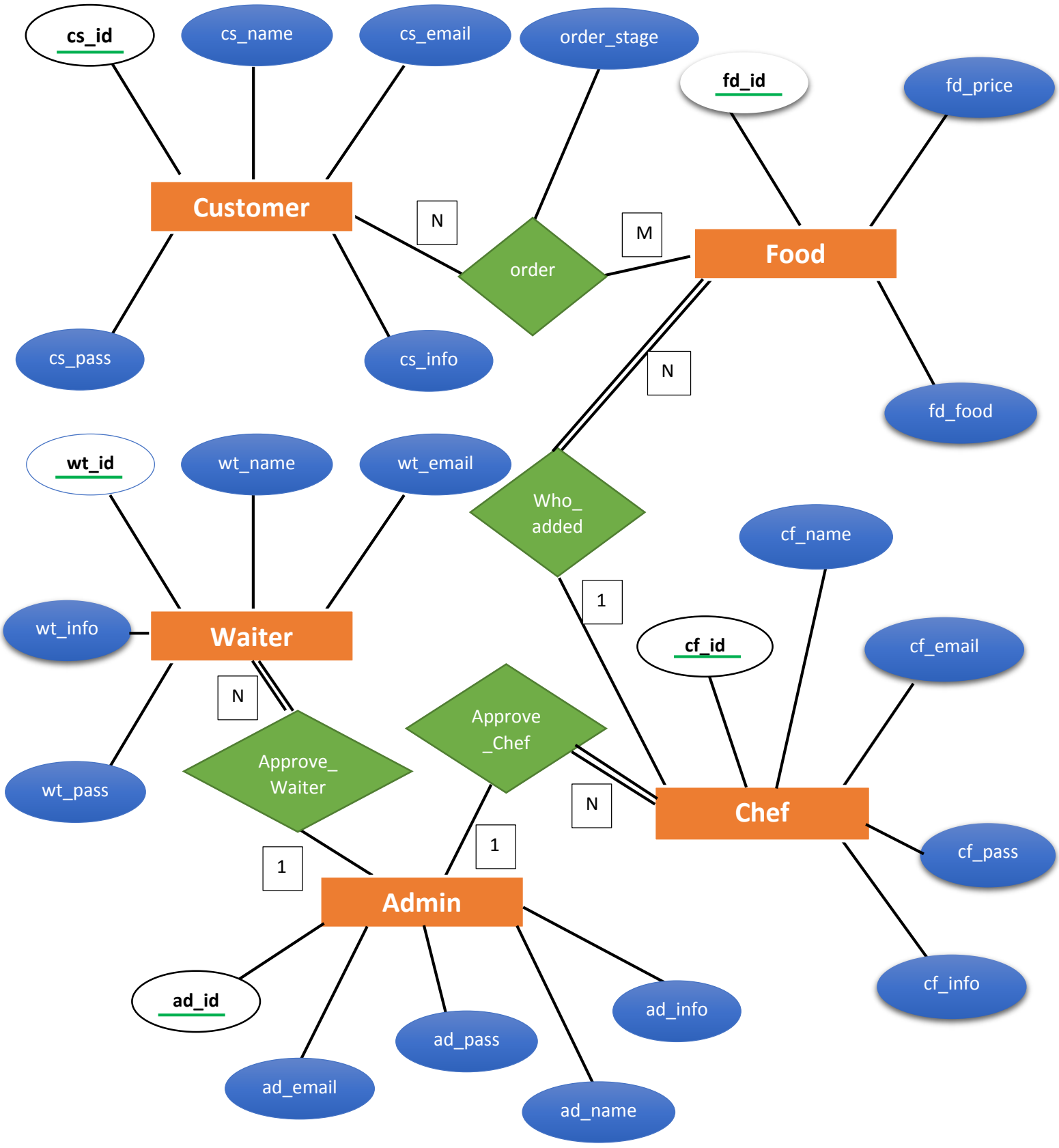
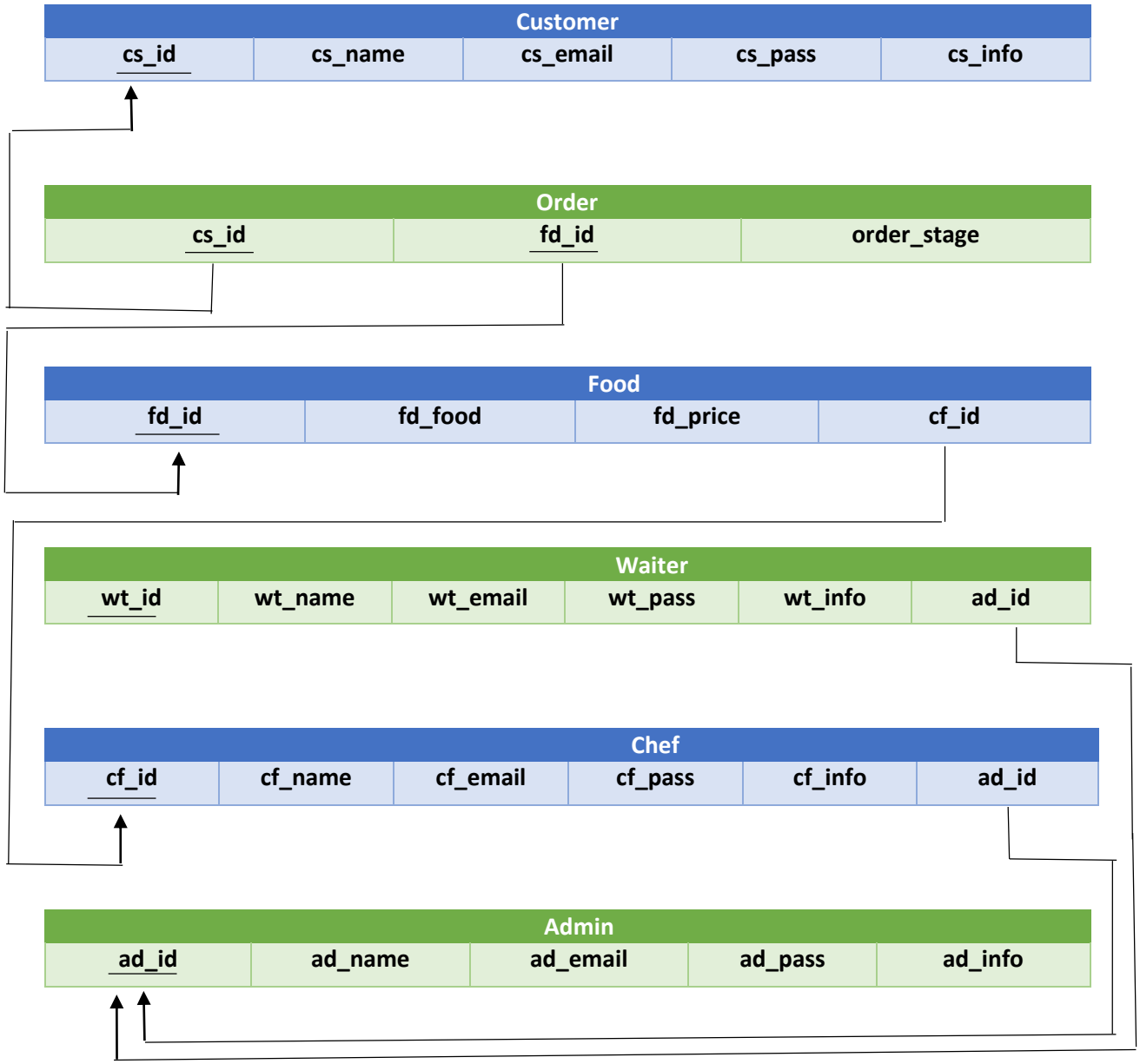
DBMS PROJECT REPORT

ER DIAGRAM



Relational Schema



Customer(**cs_id**, cs_name, cs_email, cs_pass, cs_info)

Order(**cs_id**, **fd_id**, order_stage)

Food(**fd_id**, fd_food, fd_price, cf_id)

Waiter(**wt_id**, wt_name, wt_ email, wt_pass, wt_info, ad_id)

Chef(**cf_id**, cf_name, cf_email, cf_pass, cf_info, ad_id)

Admin (**ad_id**, ad_name, ad_email, ad_pass, ad_info)

Foreign keys in:

Customer : None

Order : cs_id is foreign key which points to cs_id of Customer(which is primary key over there); fd_id is foreign key which points to fd_id of Food(which is primary key over there).

Food : cf_id is foreign key which points to cf_id of Chef(which is primary key over there).

Waiter : ad_id is foreign key which points to ad_id of Admin(which is primary key over there).

Chef : ad_id is foreign key which points to ad_id of Admin(which is primary key over there).

Admin : None

Functional Dependency

1). cs_id ⟶ cs_name, cs_email, cs_pass, cs_info

2). cs_id, fd_id ⟶ order_stage

3). fd_id ⟶ fd_food, fd_price, cf_id

4). wt_id ⟶ wt_name, wt_ email, wt_pass, wt_info, ad_id

5). wt_email ⟶ wt_ id

6). cf_id ⟶ cf_name, cf_email, cf_pass, cf_info, ad_id

7). ad_id ⟶ ad_name, ad_email, ad_pass, ad_info

8). cf_email ⟶ cf_id

9). ad_email ⟶ ad_id

So, from above dependencies we can see that our relation is in 3NF and also in BCNF. It is because in each table, the functional dependency's left side is always candidate key. For relation to be in BCNF, if there is a dependency A->B then A should be super key. Therefore, in every functional dependency corresponding to table, left side is always candidate key.

1st dependency : cs_id is primary key in Customer; 2nd dependency : cs_id, fd_id is primary key in Order; 3rd dependency : fd_id is primary key in Food; 4th dependency : wt_id is primary key in Waiter; 5th dependency : wt_email is candidate key in Waiter; 6th dependency : cf_id is primary key in Chef; 7th dependency : ad_id is primary key in Admin; 8th dependency : cf_email is candidate key in Chef; 9th dependency : ad_email is candidate key in Admin.

The team members are:

Deepak Thukral : 2014036

Darvesh Punia : 2014034