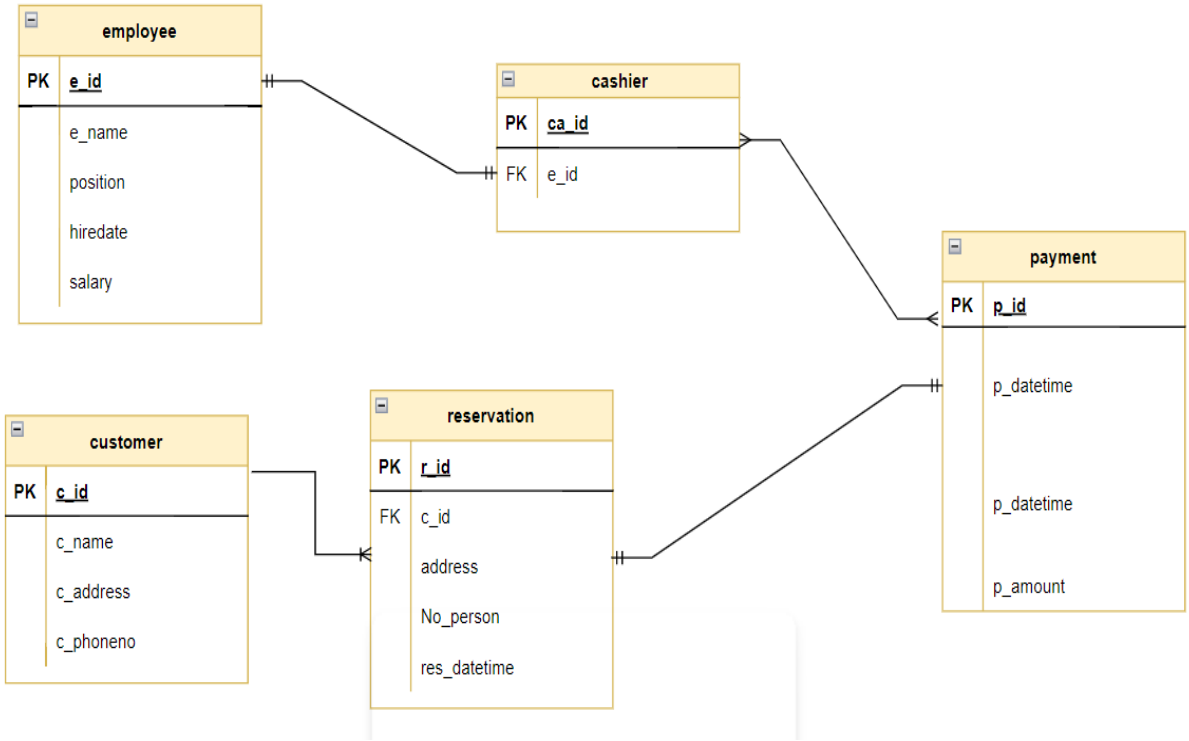
Schema Diagram for a Database System



1. Table employee

```
create table employee(
e_id varchar(10) primary key,
e_name varchar(30),
position varchar(20),
hiredate date,
salary float

);

select * from customer
```

E_ID	E_NAME	POSITION	HIREDATE	SALARY
e104	Susmita Sharma	Manager	22-NOV-20	190000
e105	Shanti Ghimire	accountant	25-JAN-20	290000
e109	Jipsa Kurian	cashier	22-OCT-20	65000
e103	Anish Shahi	bartender	12-MAR-20	70000
e107	Ankul Kumar	assistant chef	29-APR-20	27000
e108	Shivam Tiwari	cleaner	25-SEP-20	40000
e110	Dewangini Tiwari	cashier	22-OCT-20	190000
e101	Sandesh Lamsal	waiter	22-JAN-20	90000
e102	Suman Giri	Chef	23-FEB-20	80000
e106	Pooja Upadhaya	cleaner	29-JAN-20	300000

Data:

```
insert all into employee values('e101','Sandesh Lamsal','waiter',to_date('2020/01/22','YYYY/MM/DD'),90000)
        into employee values('e102','Suman Giri','Chef',to_date('2020/02/23','YYYY/MM/DD'),80000)
        into employee values('e103','Anish Shahi','bartender',to_date('2020/03/12','YYYY/MM/DD'),70000)
        into employee values('e104','Susmita Sharma','Manager',to_date('2020/11/22','YYYY/MM/DD'),190000)
        into employee values('e105','Shanti Ghimire','accountant',to_date('2020/01/25','YYYY/MM/DD'),290000)
        into employee values('e106','Pooja Upadhaya','cleaner',to_date('2020/01/29','YYYY/MM/DD'),300000)
        into employee values('e107','Ankul Kumar','assistant chef',to_date('2020/04/29','YYYY/MM/DD'),27000)
        into employee values('e108','Shivam Tiwari','cleaner',to_date('2020/09/25','YYYY/MM/DD'),40000)
```

```
        into employee values('e109','Jipsa
Kurian','cashier',to_date('2020/10/22','YYYY/MM/DD'),65000)
        into employee values('e110','Dewangini
Tiwari','cashier',to_date('2020/10/22','YYYY/MM/DD'),190000)

        select 1 from dual
```

2. Table customer

```
create table customer(
c_id varchar(10) primary key,
c_name varchar(30),
c_address varchar(30),
c_phoneno varchar(15) unique

);
select * from customer
```

C_ID	C_NAME	C_ADDRESS	C_PHONENO
c101	Dale Phillips	USA	+89 0254789128
c102	Danial Sams	Canada	+97 5846721864
c103	Krist lynn	USA	+91 9856488214
c104	Ammie Jackson	Norway	+43 158230597
c105	Sonali Vangsal	Finland	+89 4628713058
c106	Pooja Malik	Luxembourg	+88 6798412300
c107	Dale hagden	Newzealand	+76 3687103105
c108	crystofer Phillips	Holland	+89 4768123864
c109	Raman Phillips	Nepal	+97 0789825648
c110	Dale samson	Norway	+20 0146875000

Data:

```
insert all into customer values('c101','Dale Phillips','USA','+89 0254789128')
        into customer values('c102','Danial Sams','Canada','+97 5846721864')
        into customer values('c103','Krist lynn','USA','+91 9856488214')
        into customer values('c104','Ammie Jackson','Norway','+43 158230597')
        into customer values('c105','Sonali Vangsal','Finland','+89 4628713058')
        into customer values('c106','Pooja Malik','Luxembourg','+88 6798412300')
        into customer values('c107','Dale hagden','Newzealand','+76 3687103105')
        into customer values('c108','crystofer Phillips','Holland','+89 4768123864')
        into customer values('c109','Raman Phillips','Nepal','+97 0789825648')
        into customer values('c110','Dale samson','Norway','+20 0146875000')

        select 1 from dual;
```

3. Table cashier

```
create table cashier(
ca_id varchar(10) primary key,
e_id varchar(10),
foreign key (e_id) references employee(e_id)
);
```

CA_ID	E_ID
ca101	e109
ca102	e110

Download CSV

2 rows selected.

Data:

```
insert all into cashier values('ca101','e109')
        into cashier values('ca102','e110')
        select 1 from dual
```

4. Table reservation

```
create table reservation(
r_id varchar(10) primary key,
c_id varchar(10),
address varchar(30),
No_person int,
res_datetime date,
foreign key (c_id) references customer(c_id)
);
```

select * from reservation

R_ID	C_ID	ADDRESS	NO_PERSON	RES_DATETIME
r101	c101	Chappali Height (2)	10	22-OCT-22
r102	c102	Sndde (1)	12	23-OCT-22
r103	c103	faker (3)	7	24-OCT-22
r104	c104	Chamek (8)	3	12-OCT-22
r105	c101	karas (20)	13	20-OCT-22
r106	c104	Chanal (9)	11	29-OCT-22
r107	c105	chartnam (13)	9	27-SEP-22
r108	c106	seiker (11)	20	24-SEP-22
r109	c103	Jakie (5)	6	25-OCT-22
r110	c102	Canthol (12)	7	26-OCT-22
r111	c101	chokal (15)	13	24-OCT-22

Data:

insert all into reservation values('r101','c101','Chappali Height (2)',10,to_date('2022/10/22','YYYY/MM/DD'))

into reservation values('r102','c102','Sndde (1)',12,to_date('2022/10/23','YYYY/MM/DD'))

into reservation values('r103','c103','faker (3)',7,to_date('2022/10/24','YYYY/MM/DD'))

into reservation values('r104','c104','Chamek (8)',3,to_date('2022/10/12','YYYY/MM/DD'))

into reservation values('r105','c101','karas (20)',13,to_date('2022/10/20','YYYY/MM/DD'))

into reservation values('r106','c104','Chanal (9)',11,to_date('2022/10/29','YYYY/MM/DD'))

into reservation values('r107','c105','chartnam (13)',9,to_date('2022/09/27','YYYY/MM/DD'))

```
        into reservation values('r108','c106','seiker
(11)',20,to_date('2022/09/24','YYYY/MM/DD'))

        into reservation values('r109','c103','Jakie
(5)',6,to_date('2022/10/25','YYYY/MM/DD'))

        into reservation values('r110','c102','Canthol
(12)',7,to_date('2022/10/26','YYYY/MM/DD'))

        into reservation values('r111','c101','chokal
(15)',13,to_date('2022/10/24','YYYY/MM/DD'))

        select 1 from dual;
```

5. Table Payment

```
create table payment(

p_id varchar(10) primary key,

p_datetime date,

p_amount float,

r_id varchar(10) unique,

foreign key (r_id) references reservation(r_id)


);


select * from payment
```

P_ID	P_DATETIME	P_AMOUNT	R_ID
p101	22-OCT-22	10000	r111
p102	23-OCT-22	12500	r101
p103	24-OCT-22	12345	r105
p104	12-OCT-22	15022	r110
p105	20-OCT-22	17000	r103
p106	29-OCT-22	19876	r104
p107	27-SEP-22	13025	r102
p108	24-SEP-22	12058	r107
p109	25-OCT-22	30051	r106
p110	26-OCT-22	92067	r108

Data:

```
insert all into payment values('p101',to_date('2022/10/22','YYYY/MM/DD'),10000)
        into payment values('p102',to_date('2022/10/23','YYYY/MM/DD'),12500)
        into payment values('p103',to_date('2022/10/24','YYYY/MM/DD'),12345)
        into payment values('p104',to_date('2022/10/12','YYYY/MM/DD'),15022)
        into payment values('p105',to_date('2022/10/20','YYYY/MM/DD'),17000)
        into payment values('p106',to_date('2022/10/29','YYYY/MM/DD'),19876)
        into payment values('p107',to_date('2022/09/27','YYYY/MM/DD'),13025)
        into payment values('p108',to_date('2022/09/24','YYYY/MM/DD'),12058)
        into payment values('p109',to_date('2022/10/25','YYYY/MM/DD'),30051)
        into payment values('p110',to_date('2022/10/26','YYYY/MM/DD'),92067)
        into payment values('p111',to_date('2022/10/24','YYYY/MM/DD'),78231)

        select 1 from dual;
```

6. Table cashierVsPayment

```
create table cashierVsPayment(
ca_id varchar(10),
p_id varchar(10) unique,
foreign key (ca_id) references cashier(ca_id),
foreign key (p_id) references payment(p_id)

);
select * from cashierVsPayment
```

CA_ID	P_ID
ca101	p101
ca102	p110
ca101	p102
ca102	p103
ca102	p104
ca101	p105
ca102	p106
ca102	p107
ca101	p108
ca102	p109

Data:

Insert all into cashierVsPayment values (‘ca101’,’p101’)

into cashierVsPayment values (‘ca102’,’p110’)

into cashierVsPayment values (‘ca101’,’p102’)

into cashierVsPayment values (‘ca102’,’p103’)

into cashierVsPayment values (‘ca102’,’p104’)

into cashierVsPayment values (‘ca101’,’p105’)

into cashierVsPayment values (‘ca102’,’p106’)

into cashierVsPayment values (‘ca102’,’p107’)

into cashierVsPayment values (‘ca101’,’p108’)

into cashierVsPayment values (‘ca102’,’p109’)

Select 1 from dual

SQL queries;

1. To select employee name, position and salary of customers whose salary is highest

select e_name,position,salary from employee where salary=(select max(salary) from employee)

Output:

E_NAME	POSITION	SALARY
Pooja Upadhaya	cleaner	300000

Download CSV

2. To select employee name, position and salary of customers whose salary is lowest

select e_name,position,salary from employee where salary=(select min(salary) from employee)

E_NAME	POSITION	SALARY
Ankul Kumar	assistant chef	27000

Download CSV

3. Update data and set salary=25000 whose position is cleaner

update employee set salary=25000 where position = 'cleaner'

E_ID	E_NAME	POSITION	HIREDATE	SALARY
e104	Susmita Sharma	Manager	22-NOV-20	190000
e105	Shanti Ghimire	accountant	25-JAN-20	290000
e109	Jipsa Kurian	cashier	22-OCT-20	65000
e103	Anish Shahi	bartender	12-MAR-20	70000
e107	Ankul Kumar	assistant chef	29-APR-20	27000
e108	Shivam Tiwari	cleaner	25-SEP-20	25000
e110	Dewangini Tiwari	cashier	22-OCT-20	190000
e101	Sandesh Lamsal	waiter	22-JAN-20	90000
e102	Suman Giri	Chef	23-FEB-20	80000
e106	Pooja Upadhaya	cleaner	29-JAN-20	25000

4. To renametable_NO column address in table reservation to table_NO

alter table reservation rename column address to table_NO

R_ID	C_ID	TABLE_NO	NO_PERSON	RES_DATETIME
r101	c101	Chappali Height (2)	10	22-OCT-22
r102	c102	Sndde (1)	12	23-OCT-22
r103	c103	faker (3)	7	24-OCT-22
r104	c104	Chamek (8)	3	12-OCT-22
r105	c101	karas (20)	13	20-OCT-22
r106	c104	Chanal (9)	11	29-OCT-22
r107	c105	chartnam (13)	9	27-SEP-22
r108	c106	seiker (11)	20	24-SEP-22
r109	c103	Jakie (5)	6	25-OCT-22
r110	c102	Canthol (12)	7	26-OCT-22
r111	c101	chokal (15)	13	24-OCT-22

Download CSV

11 rows selected.

5. To select customer whose ‘hi’ lies in a middle of a name

C_ID	C_NAME	C_ADDRESS	C_PHONENO
c101	Dale Phillips	USA	+89 0254789128
c108	crystofer Phillips	Holland	+89 4768123864
c109	Raman Phillips	Nepal	+97 0789825648

Download CSV

3 rows selected.

6. To create view of employee_id and name of a cashier who received different payments

create view emp_name_received_payment as select e.e_id,e.e_name, c.ca_id,p.p_amount from employee e inner join cashier c on e.e_id=c.e_id

inner join cashierVsPayment cp on c.ca_id=cp.ca_id inner join payment p on cp.p_id=p.p_id

E_ID	E_NAME	CA_ID	P_AMOUNT
e109	Jipsa Kurian	ca101	10000
e109	Jipsa Kurian	ca101	12500
e110	Dewangini Tiwari	ca102	12345
e110	Dewangini Tiwari	ca102	15022
e109	Jipsa Kurian	ca101	17000
e110	Dewangini Tiwari	ca102	19876
e110	Dewangini Tiwari	ca102	13025
e109	Jipsa Kurian	ca101	12058
e110	Dewangini Tiwari	ca102	30051
e110	Dewangini Tiwari	ca102	92067

Download CSV

10 rows selected.

7. To use groupby function in above created view to find sum of amount received by different cashiers

CASHIERNAME	TOTAL_RECEIVED_AMOUNT
Jipsa Kurian	51558
Dewangini Tiwari	182386

Download CSV

2 rows selected.

8. To delete tuple from a table:

Before delete:

E_ID	E_NAME	POSITION	HIREDATE	SALARY
e104	Susmita Sharma	Manager	22-NOV-20	190000
e105	Shanti Ghimire	accountant	25-JAN-20	290000
e109	Jipsa Kurian	cashier	22-OCT-20	65000
e103	Anish Shahi	bartender	12-MAR-20	70000
e107	Ankul Kumar	assistant chef	29-APR-20	27000
e108	Shivam Tiwari	cleaner	25-SEP-20	25000
e110	Dewangini Tiwari	cashier	22-OCT-20	190000
e101	Sandesh Lamsal	waiter	22-JAN-20	90000
e102	Suman Giri	Chef	23-FEB-20	80000
e106	Pooja Upadhaya	cleaner	29-JAN-20	25000

Download CSV

After delete:

delete from employee where e_id between 'e104' and 'e107'

E_ID	E_NAME	POSITION	HIREDATE	SALARY
e109	Jipsa Kurian	cashier	22-OCT-20	65000
e103	Anish Shahi	bartender	12-MAR-20	70000
e108	Shivam Tiwari	cleaner	25-SEP-20	25000
e110	Dewangini Tiwari	cashier	22-OCT-20	190000
e101	Sandesh Lamsal	waiter	22-JAN-20	90000
e102	Suman Giri	Chef	23-FEB-20	80000

Download CSV

6 rows selected.