Assignment 1

Write SELECT query to retrieve all columns from ‘customers’ table and modify it to return only customer name and email for customers in specific city.

```
create table customers(
id int,
name varchar2(50),
email varchar2(50),
city varchar2(50)
);
insert into customers values(1,’sachin’,’sachin@kk.com’,’chennai’);
insert into customers values(2,’satish’,’satish@kk.com’,’indore’);
insert into customers values(3,’rohit’,’rohit@kk.com’,’banglore’);
insert into customers values(4,’ramesh’,’ramesh@kk.com’,’delhi’);
insert into customers values(5,’surya’,’ssurya@kk.com’,’mumbai’);

select * from customers;
select name, email from customers where city = ‘indore’;
```

Assignment 2

Design database schema for library system including tables, fields and constraints like NOT NULL, UNIQUE and CHECK. Including primary and foreign keys to establish relationship between tables.

```
create table books(
bookid int primary key,
isbn varchar(50) unique,
title varchar(100) not null,
author varchar(100) not null,
publisher varchar(100)
);
```

```
create table student(
studentid int primary key,
firstname varchar(200) not null,
lastname varchar(200) not null,
email varchar(200) unique ,
phonenumber varchar(20) unique,
enrolmentdate date not null;
status varchar(510) not null check(status in('active','inactive'))
);

create table issue(
issueid int primary key,
bookid int not null,
studentid int not null,
issuedate date not null,
returndate date,
foreign key(bookid) reference bookdetails(bookid),
foreign key (studentid) reference student(studentid),
check(returndate is null or returndate >= issuedate)
);

create table return(
returned int primary key,
issueid int not null,
condition varchar(50) not null check(condition in('good','damage','lost')),
fineamount number default 0 check(fineamount >=0),
foreign key(issueid) reference issue(issueid)
);
```

Assignment 4

Write SQL statements to CREATE a new database and tables that reflect the library schema you designed earlier. Use ALTER statements to modify the table structures and DROP statements to remove a redundant table.

```
create table bookdetail(
booikd int primary key,
isbn varchar2(20) unique not null,
title varcha2(200) not null,
author varchar2(100) not null,
publisher varchar2(200)
);
alter table bookdetail add email varchar2(100);

create table student(
studentid int primary key,
firstname varchar(200) not null,
lastname varchar(200) not null,
email varchar(200) unique not null,
phoneno varchar(15) unique,
enrollmentdate date not null,
status varchar(50) not null check(status in('active','inactive'))
);
alter table student modify phoneno varchar(20);

create table return1(
returned int primary key,
issueid int not null,
returndate date not null,
condition varchar2(50) not null check(condition in ('good','damaged','lost)),
fineamount decimal(10,2) default 0 check (fineamount>=0),
```

```
foreign key (issueid) references issue(issueid)
);
drop table return1;
```

Assignment

Craft a query using an INNER JOIN to combine 'orders' and 'customers' tables for customers in a specified region, and a LEFT JOIN to display all customers including those without orders.

```
create table customers(
id int primary key,
name varchar2(50),
email varchar2(50),
city varchar(20)
);
insert into customers values(1,'arpan','arpan@gmail.com','indore');
insert into customers values(2,'rohit','rohit@gmail.com','hyderbad');
insert into customers values(3,'rahul','rahul@gmail.com','banglore');

select * from customers;
select name,email
from customers
where city='indore';

select name,email
from customers
where city='hyderbad';

create table orders(
ordered int primary key,
```

```
customerid int,
orderdate int
);

insert into orders values(101,1,20240528);
insert into orders values(102,2,20240529);
insert into orders values(103,3,20233008);
);
select * fom orders;

select * from customers
INNER JOIN orders ON customers.id = orders.customerid;

select c.,o.
from customers c
INNER JOIN orders o ON c.id = o.customerid
WHERE c.city = ‘indore’;

Select c.,o.
From customers c
LEFT JOIN orders o ON c.id =o.customerid;
```