Basic SQL

```
# database creation
create database gajalakshmi;
use gajalakshmi;

# Table creation
create table sales(
sales_id int primary key,
product_name varchar(10),
quantity int(2),
price int(10),
salesperson_name varchar(10)
);
select*from sales;
# inseting records
insert into
sales(sales_id,product_name,quantity,price,salesperson_name)values(101,'fridge',10,1000,'l
avanaya'),
(102,'Laptop',12,5000,'lavanaya'),
(103,'Tv',15,4000,'jayashree');
SELECT SUM(Quantity) AS TotalQuantitySold FROM Sales;

#describe tables;
select*from sales;
drop table sales;
describe  sales
```

Casestudy 1

```
#database creation
create database employeemanagement;
use employeemanagement;

#table creation
create table department(id int primary key auto_increment,
emp_name varchar(50) not null
);

 #inserting records
 insert into department values (101,'ragul'),(102,'preetha'),(103,'keerthi');

 select*from department;
```

```
#employee table creation
create table employee (id int primary key auto_increment,
emp_name varchar(50),
age int not null,
gender varchar(10),
salary int not null,
depatment_id int references department (id)
);

 #inserting records
 insert into  employee values
(01,'ragul',25,'male',35000,101),(02,'preetha',27,'female',45000,102),(03,'keerthi',22,'f
emale',20000,103);
 select*from employee;
describe  employee;
select*from employee where salary >30000



# Projects Table creation

create table project (project_id int primary key auto_increment,
    emp_name varchar (10) not null,
    budget int not null);

    insert into project values
(1001,'ragul',20000),(1002,'preetha',25000),(1003,'keerthi',9000);
    select*from project;
    select*from project where budget >10000


     #employee project creation

     create table emp_project(emp_id int, project_id int,
     foreign key (emp_id) references employee(id),
     foreign Key (project_id) references project(project_id),
     primary key(emp_id,project_id)
     );

     insert into emp_project values (01,1001),(02,1002),(03,1003);
     select*from emp_project;

     #employee  attendance table creation
```

```
create table attendance(id int primary key auto_increment,
emp_id int,
foreign key (emp_id) references employee (id),
emp_date date,
status enum('present','absent','on leave')
);

insert into attendance values
(111,01,'21-01-25','absent'),(222,02,'20-01-25','present'),(333,03,'22-01-25','on
leave');
select*from attendance;

#insert data into created tables

      update department(
emp_name='keerthi' where
```

Casestudy 2

```
#creating data base Library DB
create database librarydb ;
use librarydb;

#create table book
create table book(id int primary key auto_increment,
title varchar(100) not null,
author varchar(50) not null,
published_year year not null,
genre varchar(30));

#inserting records
insert into book values(1,'The Lord Of The Ring','J.R.R. Tolkien',1954,'Fantasy');
insert into book values(2,'Rites Of Passage ','William Golding',1980,' Age fiction');

select*from book;

#members table
create table member1(id int primary key auto_increment,
Mem_Name varchar(50) not null,
Membership_date int not null);

#inserting records
insert into member1 values(10,'Lakshmi',19);
insert into member1 values(11,'shanthi',16);
insert into members values(12,'sri',14);
```

```
insert into members values(13,'jai',20);

select*from members;
#    Borrowing Table:
create table borrowing(id int primary key auto_increment,
book_id int,
members_id int,
borrow_date DATE not null,
return_date DATE,
foreign key (book_id) references book(id),
foreign key (members_id) references members(id));

#inserting records
insert into borrowing values (101,1,10,19,20),(102,2,11,16,17);
select*from borrowing;

#insert sample data / sample data are inserted
insert into book values(3,'stranger things suspicious minds','Gwenda bond',2019,'fiction');
select*from book;
insert into members values(14,'Gwenda bond',12);
select*from members;
insert into borrowing values(103,3,14,13,12);
select*from borrowing;
```

CASESTUDY 3

```
#create table studentDB
create table studentdb;
use studentdb;

create table students(id int primary key auto_increment,
name varchar(50) not null,
age int not null,
email varchar(50) not null unique);
insert into students value(1101,'Ragavi',18,'Ragavi@gmail.com');

select*from students;

insert into students values(1102,'Gomathi',19,'Gomathi@gmail.com');
insert into students values(1103,'Kaviya',20,'Kaviya@gmail.com'),
(1104,'Shree',21,'Shree@gmail.com');
insert into students values(1105,'Elakkiya',20,'Elakkiya@gmail.com');

#courses table
create table courses(id int primary key auto_increment,
name varchar(50) not null);
```

```
insert into courses values(101,'maths'),
(102,'accounts'),
(103,'physics'),
(104,'commerce');

select*from courses;

#enrollments table
create table enrollments(students_id int,
courses_id int,
grade char(1),
primary key(students_id,courses_id),
foreign key (students_id) references students(id),
foreign key (courses_id) references courses(id));
insert into enrollments values(1101,101,'A'),
(1102,102,'B'),
(1104,104,'D'),
(1103,103,'C'),
insert into enrollments values(1105,102,'A');

select*from enrollments;

#INSERT SAMPLE DATA / DATA ARE INSERTED
insert into students values(1106,'priya',20,'priya@gmail.com');
insert into enrollments values(1106,102,'B');
```

CASESTUDY 4

```
#creating database retailDB
create database RetailDB;
use RetailDB;

#creating table products
create table products(id int primary key auto_increment,
name varchar(50) not null,
price decimal(10,2) not null check(price > 0),
stock int not null check(stock >= 0 ));
insert into products values(101,'Wireless Mouse', 29.99, 150),
(102,'Gaming Keyboard', 89.99, 75),
(103,'USB-C Charging Cable', 12.50, 300);

select*from products;

#create suppliers table
create table suppliers(id int primary key auto_increment,
name varchar(50) not null,
contact varchar(50));
```

```
insert into suppliers values
(1001, 'Tech Supply Co.', 'techsupply@example.com'),
(1002, 'Global Electronics Ltd.', 'contact@globalelectronics.com'),
(1003, 'Innovative Components', 'sales@innovativeparts.com');

select*from suppliers;

#create sales table
CREATE TABLE sales (
    id INT AUTO_INCREMENT PRIMARY KEY,
    product_id INT NOT NULL,
    FOREIGN KEY (product_id) REFERENCES products(id),
    date DATE NOT NULL,
    quantity INT NOT NULL CHECK (quantity > 0),
    total_price DECIMAL(10,2) NOT NULL
);
select*from sales;
insert into sales values(1,101, '2024-11-20', 2, 59.98),  (2,102, '2024-11-21', 1, 89.99),
(3,103, '2024-11-21', 5, 62.50),(4,104, '2024-11-22', 1, 199.99);
select*from sales;
```

CASESTUDY 5

```
#create database HospitalDB;
create database HospitalDB;
use HospitalDB;

#creating patients table
create table patients(id int primary key auto_increment,
name varchar(50) not null,
age int not null,
gender varchar(10),
contact varchar(50));
insert into patients values(101,'preethi',20,'female',7305641340),
(102,'rupa',20,'female',89076543210),
(103,'parvathi',14,'female',7890516790);

select*from patients;

#doctors table
create table doctors(id int primary key auto_increment,
name varchar(50) not null,
specialization varchar(50) not null);
insert into doctors values(315,'karthik','cardiologist'),
(314,'supritha','dermatologist'),
(316,'komathi','pediatrician');

select*from doctors;
```

```
#appoinments table
create table appointments(id int primary key auto_increment,
patient_id int,
doctors_id int,
appointment_date date not null,
status enum('scheduled','completed','cancelled'),
foreign key(patient_id) references patients(id),
foreign key(doctors_id) references doctors(id)
);

INSERT INTO appointments VALUES
  (1,101, 315, '2024-11-25', 'scheduled'),
  (2,102, 314, '2024-11-26', 'scheduled'),
  (3,103, 316, '2024-11-27', 'cancelled');

  select*from appointments;
```