

SQL Practical – University Hostel Management

Question

1. Create two tables:
 - Students(RollNo, StudentName, Course, HostelName, RoomNumber)
 - HostelFees(ReceiptNo, RollNo, AmountPaid)
2. Identify primary and foreign keys.
3. Insert 2 records in each table.
4. Add column **PaymentDate** to HostelFees.
5. Count students staying in “Aravali Hostel”.
6. List all B.Tech students who paid hostel fees.
7. Find total hostel fees collected from each hostel.

Solutions

1. Create Database and Tables

```
CREATE DATABASE HostelDB;
USE HostelDB;

CREATE TABLE Students(
    RollNo CHAR(6) PRIMARY KEY,
    StudentName VARCHAR(40),
    Course VARCHAR(20),
    HostelName VARCHAR(20),
    RoomNumber INT
);
```

```
CREATE TABLE HostelFees(  
    ReceiptNo INT PRIMARY KEY,  
    RollNo CHAR(6),  
    AmountPaid INT,  
    FOREIGN KEY (RollNo) REFERENCES Students(RollNo)  
);
```

2. Insert Records

```
INSERT INTO Students VALUES  
( 'S101', 'Arjun', 'B.Tech', 'Aravali Hostel', 101 ),  
( 'S102', 'Meera', 'BBA', 'Shivalik Hostel', 202 ),  
( 'S103', 'Riya', 'B.Tech', 'Aravali Hostel', 103 );  
  
INSERT INTO HostelFees VALUES  
( 1, 'S101', 50000 ),  
( 2, 'S102', 45000 ),  
( 3, 'S103', 52000 );
```

3. Add PaymentDate

```
ALTER TABLE HostelFees ADD PaymentDate DATE;
```

4. Count Students in Aravali Hostel

```
SELECT COUNT(*)  
FROM Students  
WHERE HostelName='Aravali Hostel';
```

5. B.Tech Students Who Paid Hostel Fees

```
SELECT S.StudentName, S.Course  
FROM Students S  
JOIN HostelFees H  
ON S.RollNo = H.RollNo  
WHERE Course='B.Tech';
```

6. Total Fees Per Hostel

```
SELECT HostelName, SUM(AmountPaid) AS TotalCollected
FROM Students S
JOIN HostelFees H
ON S.RollNo = H.RollNo
GROUP BY HostelName;
```