* create table student\_details(registration\_no varchar(6) primary key, sname varchar(25), branch varchar(20), contact bigint, d\_o\_b date, date\_of\_joining date, address varchar(30), email varchar(25));

+-----------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------------+-------------+------+-----+---------+-------+

| registration\_no | varchar(6) | NO | PRI | NULL | |

| sname | varchar(25) | YES | | NULL | |

| branch | varchar(20) | YES | | NULL | |

| contact | bigint | YES | | NULL | |

| d\_o\_b | date | YES | | NULL | |

| date\_of\_joining | date | YES | | NULL | |

| address | varchar(30) | YES | | NULL | |

| email | varchar(25) | YES | | NULL | |

+-----------------+-------------+------+-----+---------+-------+

* create table subject(subject\_code varchar(6) primary key, subject\_1 int, subject\_2 int, subject\_3 int, semester varchar(7), reg\_no varchar(6), foreign key(reg\_no) references student\_details(registration\_no));

+--------------+------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------------+------------+------+-----+---------+-------+

| subject\_code | varchar(6) | NO | PRI | NULL | |

| subject\_1 | int | YES | | NULL | |

| subject\_2 | int | YES | | NULL | |

| subject\_3 | int | YES | | NULL | |

| semester | varchar(7) | YES | | NULL | |

| reg\_no | varchar(6) | YES | MUL | NULL | |

+--------------+------------+------+-----+---------+-------+

* insert into student\_details values('AF0123', 'Pritam', 'IT', 9876543210, '1999-01-01', '2023-02-22', 'Maldaa', 'pritam@gmail.com');
* insert into student\_details values('AF0456', 'Sabdick', 'CIVIL', 1234567890, '1997-08-01', '2023-01-11', 'Kolkata', 'sabdick@gmail.com');
* insert into student\_details values('AF0789', 'Riya', 'IT', 7891234560, '1999-05-05', '2023-01-01', 'Ranchi', 'riya@gmail.com');
* insert into student\_details values('AF0147', 'Arindam', 'MECHANICAL', 7894560123, '1999-01-02', '2023-01-01', 'Midnapur', 'arindam@gmail.com');
* insert into student\_details values('AF0258', 'Priya', 'ELECTRICAL', 7894561230, '2000-03-03', '2022-10-01', 'Kalyani', 'priya@gmail.com');
* insert into student\_details values('AF0369', 'Madhu', 'ELECTRICAL', 7890456123, '2000-07-07', '2022-12-12', 'Kalyani', 'madhu@gmail.com');

**Q. Display a students information after updating his/her details.**

* update student\_details set address='Malda' where sname='Pritam';

+-----------------+---------+------------+------------+------------+-----------------+----------+-------------------+

| registration\_no | sname | branch | contact | d\_o\_b | date\_of\_joining | address | email |

+-----------------+---------+------------+------------+------------+-----------------+----------+-------------------+

| AF0123 | Pritam | IT | 9876543210 | 1999-01-01 | 2023-02-22 | Malda | pritam@gmail.com |

| AF0147 | Arindam | MECHANICAL | 7894560123 | 1999-01-02 | 2023-01-01 | Midnapur | arindam@gmail.com |

| AF0258 | Priya | ELECTRICAL | 7894561230 | 2000-03-03 | 2022-10-01 | Kalyani | priya@gmail.com |

| AF0369 | Madhu | ELECTRICAL | 7890456123 | 2000-07-07 | 2022-12-12 | Kalyani | madhu@gmail.com |

| AF0456 | Sabdick | CIVIL | 1234567890 | 1997-08-01 | 2023-01-11 | Kolkata | sabdick@gmail.com |

| AF0789 | Riya | IT | 7891234560 | 1999-05-05 | 2023-01-01 | Ranchi | riya@gmail.com |

+-----------------+---------+------------+------------+------------+-----------------+----------+-------------------+

**Q. Calculate the average marks for individual and calculate percentage. Along with student name , subjects, reg no, (inner join).**

* select s.sname, s.registration\_no, su.subject\_code, su.subject\_1, su.subject\_2, su.subject\_3, ((su.subject\_1+su.subject\_2+su.subject\_3)/3) as average, ((((su.subject\_1+su.subject\_2+su.subject\_3)/3)\*100)/100) as percentage from student\_details s inner join subject su on s.registration\_no=su.reg\_no;

+---------+-----------------+--------------+-----------+-----------+-----------+---------+-------------+

| sname | registration\_no | subject\_code | subject\_1 | subject\_2 | subject\_3 | average | percentage |

+---------+-----------------+--------------+-----------+-----------+-----------+---------+-------------+

| Pritam | AF0123 | ANU101 | 80 | 85 | 90 | 85.0000 | 85.00000000 |

| Arindam | AF0147 | ANU104 | 85 | 85 | 95 | 88.3333 | 88.33333333 |

| Priya | AF0258 | ANU105 | 87 | 87 | 97 | 90.3333 | 90.33333333 |

| Madhu | AF0369 | ANU106 | 89 | 89 | 99 | 92.3333 | 92.33333333 |

| Sabdick | AF0456 | ANU102 | 81 | 82 | 93 | 85.3333 | 85.33333333 |

| Riya | AF0789 | ANU103 | 83 | 83 | 93 | 86.3333 | 86.33333333 |

+---------+-----------------+--------------+-----------+-----------+-----------+---------+-------------+

**Q. Display the average marks of all the students display the average marks of students from a particular branch.**

* select s.sname, s.branch, ((su.subject\_1+su.subject\_2+su.subject\_3)/3) as Average from student\_details s inner join subject su on s.registration\_no=su.reg\_no where s.branch like 'IT';

+--------+--------+---------+

| sname | branch | Average |

+--------+--------+---------+

| Pritam | IT | 85.0000 |

| Riya | IT | 86.3333 |

+--------+--------+---------+

**Q. Display the sum of marks of students where semester = 3**

* select (subject\_1+subject\_2+subject\_3) as SUM\_of\_MARKS from subject where semester='3rd Sem';

+--------------+

| SUM\_of\_MARKS |

+--------------+

| 265 |

| 271 |

+--------------+

**Q. Display the reg\_no,student name, marks whose sum of marks is greater than 260.**

* select s.sname, su.reg\_no, su.subject\_1, su.subject\_2, su.subject\_3 from student\_details s inner join subject su on s.registration\_no=su.reg\_no where (subject\_1+subject\_2+subject\_3)>260;

+---------+--------+-----------+-----------+-----------+

| sname | reg\_no | subject\_1 | subject\_2 | subject\_3 |

+---------+--------+-----------+-----------+-----------+

| Arindam | AF0147 | 85 | 85 | 95 |

| Priya | AF0258 | 87 | 87 | 97 |

| Madhu | AF0369 | 89 | 89 | 99 |

+---------+--------+-----------+-----------+-----------+

**Q. Calculate the percentage for the marks for all the students. Display the reg\_no, student\_name, branch, semester and percentage.**

* select s.sname, s.registration\_no, s.branch, su.semester, round(((((su.subject\_1+su.subject\_2+su.subject\_3)/3)\*100)/100),2) as percentage from student\_details s inner join subject su on s.registration\_no=su.reg\_no;

+---------+-----------------+------------+----------+------------+

| sname | registration\_no | branch | semester | percentage |

+---------+-----------------+------------+----------+------------+

| Pritam | AF0123 | IT | 4th Sem | 85.00 |

| Arindam | AF0147 | MECHANICAL | 3rd Sem | 88.33 |

| Priya | AF0258 | ELECTRICAL | 3rd Sem | 90.33 |

| Madhu | AF0369 | ELECTRICAL | 4th Sem | 92.33 |

| Sabdick | AF0456 | CIVIL | 2nd Sem | 85.33 |

| Riya | AF0789 | IT | 2nd Sem | 86.33 |

+---------+-----------------+------------+----------+------------+