SIT103 Database
Lab Exercise 4 - Join

Background

This week we will review answers to last week's queries and get some more practice at creating SQL queries using the syntax we learnt from the lecture.

PLEASE REFER TO THE LECTURE NOTES FOR HELP AND ASSISTANCE.

Tutorial Exercises – JOIN

Using the STUDENT tables, write queries to produce the following reports.

A. Show student numbers of students enrolled in BI918 in semester 2.

```
Select student_no from student_course where COURSE_CODE = 'BI918' and sem_start = 2;
```

B. As in query A plus show the student surname and given name.

```
Select s.surname, s.given, s.student_no from student s, student_course sc where
sc.COURSE_CODE = 'AC102' and sc.sem_start = 2 AND sc.studeng_no =
s.student_no;
```

C. As in query B plus show the course name.

```
Select s.surname,c.course_name, s.given, s.student_no from student s, student_course sc,
course c where sc.COURSE_CODE = 'AC102' and sc.sem_start = 2 and s.student_no =
sc.student_no;
```

D. List student name, programme code and programme name for all students.

```
Select s.Given|| ' ' || s.surname as FULL_name, p.programme_code, p.programme_name from
student s, programme p where s.programme_code = p. s.programme_code;
```

E. List the programme name of students enrolled in BI958 in semester 2.

```
select p.programme_name from programme p, student s, student_course sc where course_code = 'AC102'
and sem_start = 2 and sc.studeng_no = s.student_no and s.programme_code = p.programme_code;
```

F. List each student number and how many courses the student is enrolled in (group by).

```
select student_no, count(*) from student_course group by student_no;
```

G. List each course code and how many students are enrolled in each course, only for semester 1 (group by).

```
select course_code, count(*) from student_course where sem_start=1 group by course_code;
```

H. As in query G but also show the course name (hint: secondary grouping field).

```
select sc.course_code, course_name, count(*) from student_course sc, course c where sem_start=1
and sc.course_code = c.course_code group by sc.course_code, course_name;
```

I. Show a list of students' full name, age, and the programme name the student is in (using programme_code in student table). Show only students enrolled in the course AC459.

```
Select s.Given|| ' ' || s.surname as Full_name, floor((sysdate - s.DOB) /365.25),
p.programme_name from student s, programme p, student_course sc where
s.student_no = sc.student_no And S.PROGRAMME_CODE=P.PROGRAmme_code and
sc.course_code='AC102'
```

J. Alter the query done in I. to show only students older than 30 years of age.

```
Select s.Given|| ' ' || s.surname as Full_name, floor((sysdate - s.DOB) /365.25), p.programme_name from
student s, programme p, student_course sc where
s.student_no = sc.student_no And S.PROGRAMME_CODE=P.PROGRAmme_code and
sc.course_code='AC102' and ((sysdate - s.DOB) /365.25)>30
```