***LAB 7***

***-- A***

**SELECT EXTRACT(YEAR FROM SIGNUP.YEAR) AS YEAR, COUNT(\*) AS NUM\_OF\_STUDENTS**

**FROM SIGNUP**

**GROUP BY EXTRACT(YEAR FROM SIGNUP.YEAR)**

***-- B***

**SELECT EXTRACT(YEAR FROM SIGNUP.YEAR) AS YEAR, DEPARTMENT.FACULTY, DEPARTMENT.ID, COUNT(\*) AS NUM\_OF\_STUDENTS**

**FROM SIGNUP**

**INNER JOIN STUDENT ON SIGNUP.STUDENT\_ID = STUDENT.ID**

**INNER JOIN DEPARTMENT ON STUDENT.DEPARTMENT = DEPARTMENT.ID**

**GROUP BY EXTRACT(YEAR FROM SIGNUP.YEAR), DEPARTMENT.FACULTY, DEPARTMENT.ID**

***-- C***

**SELECT STUDENT.NAME || ' ' || STUDENT.SURNAME AS STUDENT, STUDENT.ID, COURSE.NAME, AVG(GRADE.VALUE) AS AVG\_GRADE**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN COURSE ON SIGNUP.COURSE\_ID = COURSE.ID**

**INNER JOIN GRADE ON SIGNUP.ID = GRADE.SIGNUP\_ID**

**WHERE GRADE.ELP IN ('L', 'P')**

**GROUP BY STUDENT.NAME || ' ' || STUDENT.SURNAME, STUDENT.ID, COURSE.NAME**

***-- D***

**SELECT COURSE.NAME, AVG(GRADE.VALUE) AS AVG\_GRADE**

**FROM GRADE**

**INNER JOIN SIGNUP ON GRADE.SIGNUP\_ID = SIGNUP.ID**

**INNER JOIN STUDENT ON SIGNUP.STUDENT\_ID = STUDENT.ID**

**INNER JOIN COURSE ON SIGNUP.COURSE\_ID = COURSE.ID**

**WHERE GRADE.ELP = 'L' AND COURSE.NAME = 'Programming'**

**GROUP BY COURSE.NAME**

***-- E***

**SELECT DEPARTMENT.ID, DEPARTMENT.FACULTY**

**FROM DEPARTMENT**

**INNER JOIN STUDENT ON DEPARTMENT.ID = STUDENT.DEPARTMENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON SIGNUP.ID = GRADE.SIGNUP\_ID**

**WHERE GRADE.ELP = 'E'**

**GROUP BY DEPARTMENT.ID, DEPARTMENT.FACULTY**

**HAVING COUNT(\*) >= 10 AND MAX(GRADE.VALUE) = 10**

***-- F***

**SELECT UPPER(STUDENT.NAME) || ' ' || STUDENT.SURNAME, COURSE.NAME, COURSE.ID,**

**MAX(CASE WHEN GRADE.ELP = 'E' THEN GRADE.VALUE END) AS EXAM\_GRADE,**

**AVG(CASE WHEN GRADE.ELP = 'L' THEN GRADE.VALUE WHEN GRADE.ELP = 'P' THEN GRADE.VALUE END) AS ACTIVITY\_GRADE,**

**(2 \* AVG(CASE WHEN GRADE.ELP = 'E' THEN GRADE.VALUE END)**

**+ AVG(CASE WHEN GRADE.ELP = 'L' THEN GRADE.VALUE WHEN GRADE.ELP = 'P' THEN GRADE.VALUE END)) / 3 AS FINAL\_GRADE**

**FROM STUDENT**

**INNER JOIN SIGNUP ON STUDENT.ID = SIGNUP.STUDENT\_ID**

**INNER JOIN GRADE ON SIGNUP.ID = GRADE.SIGNUP\_ID**

**INNER JOIN COURSE ON SIGNUP.COURSE\_ID = COURSE.ID**

**GROUP BY STUDENT.NAME, STUDENT.SURNAME, COURSE.NAME, COURSE.ID**

**HAVING (2 \* MAX(CASE WHEN GRADE.ELP = 'E' THEN GRADE.VALUE END)**

**+ AVG(CASE WHEN GRADE.ELP = 'L' THEN GRADE.VALUE WHEN GRADE.ELP = 'P' THEN GRADE.VALUE END)) / 3 >= 5**