

SIT103 Database

Tutorial Exercise 5 Answers

EXERCISE A:

```
CREATE VIEW STUDAGE AS
SELECT SURNAME || ', ' || GIVEN AS NAME, FLOOR((SYSDATE-DOB)/365.25) AS AGE
FROM STUDENT;
```

EXERCISE B:

```
SELECT *
FROM STUDAGE
WHERE AGE > 40;
```

EXERCISE C:

```
CREATE VIEW STUDDPGM AS
SELECT STUDENT_NO, SURNAME || ', ' || GIVEN AS NAME,
       PROGRAMME.PROGRAMME_CODE, PROGRAMME_NAME
FROM STUDENT, PROGRAMME
WHERE STUDENT.PROGRAMME_CODE = PROGRAMME.PROGRAMME_CODE;
```

EXERCISE D:

```
SELECT *
FROM STUDDPGM;
```

EXERCISE E:

```
SELECT STUDENT_NO
FROM STUDENT_COURSE
MINUS
SELECT STUDENT_NO
FROM STUDENT;
```

EXERCISE F:

```
CREATE VIEW STUDNUMS AS
SELECT STUDENT_NO, COUNT(*) AS STUDCOUNT
FROM STUDENT_COURSE
GROUP BY STUDENT_NO;
```

EXERCISE G:

```
SELECT *
FROM STUDNUMS
WHERE STUDCOUNT > 15;
```

EXERCISE H:

```
SELECT *
FROM PROGRAMME
WHERE PROGRAMME_CODE NOT IN (SELECT PROGRAMME_CODE FROM STUDENT);
```

EXERCISE I:

```
CREATE OR REPLACE VIEW ALLSTUDNUMS AS
  SELECT STUDENT.STUDENT_NO, GIVEN || ' ' || SURNAME AS FULLNAME,
         COUNT(*) AS STUDCOUNT
  FROM STUDENT_COURSE, STUDENT
 WHERE STUDENT.STUDENT_NO = STUDENT_COURSE.STUDENT_NO
 GROUP BY STUDENT.STUDENT_NO, GIVEN || ' ' || SURNAME
 UNION
  SELECT STUDENT_NO, GIVEN || ' ' || SURNAME AS FULLNAME, 0
  FROM STUDENT
 WHERE STUDENT_NO NOT IN (SELECT STUDENT_NO FROM STUDENT_COURSE);
```

OR

```
CREATE OR REPLACE VIEW ALLSTUDNUMS AS
  SELECT STUDENT.STUDENT_NO, GIVEN || ' ' || SURNAME AS FULLNAME,
         COUNT(*) AS STUDCOUNT
  FROM STUDENT_COURSE, STUDENT
 WHERE STUDENT.STUDENT_NO = STUDENT_COURSE.STUDENT_NO
 GROUP BY STUDENT.STUDENT_NO, GIVEN || ' ' || SURNAME
 UNION
  (SELECT STUDENT_NO, GIVEN || ' ' || SURNAME AS FULLNAME, 0
   FROM STUDENT
   MINUS
   SELECT STUDENT.STUDENT_NO, GIVEN || ' ' || SURNAME AS FULLNAME, 0
   FROM STUDENT_COURSE, STUDENT
   WHERE STUDENT.STUDENT_NO = STUDENT_COURSE.STUDENT_NO);
```

OR

```
CREATE OR REPLACE VIEW ALLSTUDNUMS AS
  SELECT STUDENT.STUDENT_NO, GIVEN || ' ' || SURNAME AS FULLNAME,
         COUNT(STUDENT_COURSE.STUDENT_NO) AS STUDCOUNT
  FROM STUDENT_COURSE, STUDENT
 WHERE STUDENT.STUDENT_NO = STUDENT_COURSE.STUDENT_NO(+)
 GROUP BY STUDENT.STUDENT_NO, GIVEN || ' ' || SURNAME;
```

EXERCISE J:

```
SELECT *
FROM ALLSTUDNUMS
WHERE STUDCOUNT > 15;
```