

```
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 */

/*  CS532 - Project 2
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 */

-- @@ : dropping the sequence
DROP SEQUENCE generate_logid;

-- @@ : dropping all the triggers
DROP TRIGGER students_updated_insert;
DROP TRIGGER students_updated_delete;
DROP TRIGGER delete_student_enrollments;
DROP TRIGGER enrollments_updated_insert;
DROP TRIGGER enrollments_updated_delete;
DROP TRIGGER enrollment_added_classes;
DROP TRIGGER enrollment_dropped_classes;

-- @@ : creating sequence for logids
CREATE SEQUENCE generate_logid
    INCREMENT BY 1
    START WITH 101
    MAXVALUE 999;

-- @@ : student enrolled, increase respective class_size by 1
CREATE OR REPLACE TRIGGER enrollment_added_classes
BEFORE INSERT ON ENROLLMENTS
FOR EACH ROW
BEGIN
    UPDATE classes SET class_size = class_size + 1 WHERE classid = :NEW.classid;
END;

/

-- @@ : student dropped for the class, decrease respective class_size by 1
CREATE OR REPLACE TRIGGER enrollment_dropped_classes
```

BEFORE DELETE ON ENROLLMENTS

FOR EACH ROW

BEGIN

UPDATE classes **SET** class_size = class_size - 1 **WHERE** classid = :OLD.classid;

END;

/

-- @@ : student deleted, delete all his enrollments

CREATE OR REPLACE TRIGGER delete_student_enrollments

BEFORE DELETE ON students

FOR EACH ROW

BEGIN

DELETE FROM enrollments **WHERE** sid = :OLD.sid;

END;

/

-- @@ : student enrolled, update log table

CREATE OR REPLACE TRIGGER enrollments_updated_insert

BEFORE INSERT ON enrollments

FOR EACH ROW

DECLARE

dba **varchar**(20);

keyvalue **varchar**(20);

BEGIN

SELECT USER INTO dba **from** dual;

keyvalue := :NEW.sid || ',' || :NEW.classid;

INSERT INTO logs **VALUES** (generate_logid.nextval, dba, sysdate, 'Enrollments', 'Insert', keyvalue);

END;

/

-- @@ : enrollment dropped (deleted), update log table

CREATE OR REPLACE TRIGGER enrollments_updated_delete

BEFORE DELETE ON enrollments

FOR EACH ROW

DECLARE

dba **varchar**(20);

keyvalue **varchar**(20);

BEGIN

SELECT USER INTO dba **from** dual;

keyvalue := :OLD.sid || ',' || :OLD.classid;

INSERT INTO logs **VALUES** (generate_logid.nextval, dba, sysdate, 'Enrollments', 'Delete', keyvalue);

END;

/

```
-- @@ : student added, update log table
```

```
CREATE OR REPLACE TRIGGER students_updated_insert
```

```
BEFORE INSERT ON students
```

```
FOR EACH ROW
```

```
DECLARE
```

```
    dba varchar(20);
```

```
BEGIN
```

```
    SELECT USER INTO dba from dual;
```

```
    INSERT INTO logs VALUES (generate_logid.nextval, dba, sysdate, 'Students', 'Insert', :NEW.sid);
```

```
END;
```

/

```
-- @@ : student deleted, update log table
```

```
CREATE OR REPLACE TRIGGER students_updated_delete
```

```
BEFORE DELETE ON students
```

```
FOR EACH ROW
```

```
DECLARE
```

```
    dba varchar(20);
```

```
BEGIN
```

```
    SELECT USER INTO dba from dual;
```

```
    INSERT INTO logs VALUES (generate_logid.nextval, dba, sysdate, 'Students', 'Delete', :OLD.sid);
```

```
END;
```

/