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SWEN304
Assignment 3

1.
TEST 3 & 5
Function
```
CREATE OR REPLACE FUNCTION checkmajorexists()
RETURNS trigger AS
$$
BEGIN
        IF NOT EXISTS (SELECT 1 FROM major WHERE mcode = NEW.mcode) THEN
                RAISE EXCEPTION '%major does not exist', NEW.mcode;
        END IF;
        RETURN NEW;
END;
$$
LANGUAGE 'PLpgSQL';
```

Trigger
```
CREATE TRIGGER q1test3
BEFORE INSERT OR UPDATE ON student
FOR EACH ROW EXECUTE PROCEDURE checkmajorexists();
```


TEST 7
Function
```
CREATE OR REPLACE FUNCTION deletecheck()
RETURNS trigger AS
$$
BEGIN
        IF EXISTS (SELECT 1 FROM student WHERE mcode = OLD.mcode) THEN
                RAISE EXCEPTION 'A student is taking%', OLD.mcode;
        END IF;
        RETURN OLD;
END;
$$
LANGUAGE 'PLpgSQL';
```

Trigger
```
CREATE TRIGGER q1test7
BEFORE DELETE ON major
FOR EACH ROW EXECUTE PROCEDURE deletecheck();
```