



# CS 1103 - FR02B

# Lab 7

By Ngoc Phuong Anh Nguyen - 3712361

March 2021

## Exercise:

**Add a scholarship column of type INT and default value of 0 to the Student table:**

```
ALTER TABLE Students ADD scholarship INT;
```

```
MariaDB [anguyen5]> SELECT * FROM Students;
```

studentId	stName	email	gpa	scholarship
3325572	Amy Olson	amyolson@gmail.com	3.2	NULL
5532011	John Doe	johndoe@gmail.com	2.1	NULL
5533222	Kristyn Webber	krisweb@gmail.com	3.1	NULL

Figure 1: Students Table after adding a scholarship table.

**Write a stored procedure called AcceptStudent:**

```
CREATE PROCEDURE AcceptStudent
(
    name VARCHAR(50),
    email VARCHAR(50),
    average FLOAT
)
BEGIN
    DECLARE scholarship INT;
    IF average <= 100 AND average > 90 THEN
        SET scholarship = 1500;
    ELSEIF average <= 90 AND average > 85 THEN
        SET scholarship = 1000;
    ELSEIF average < 85 AND average >= 0 THEN
        SET scholarship = 0;
    ELSE
        SIGNAL SQLSTATE '45000'
        SET MESSAGE_TEXT = 'The mark is out of range';
    END IF;
    INSERT INTO Students(stName, email, scholarship)
    VALUE(name, email, scholarship);
END$$
```

## Also create script(s) to test the procedure

### 3 valid test cases

```
CALL AcceptStudent('Kevin Smith','kevinsmith@gmail.com',95);
```

```
CALL AcceptStudent('Eddy Jones','eddyjones@gmail.com',80);
```

```
CALL AcceptStudent('Eric Thomas','ericthomas@gmail.com',91);
```

### 1 test case with high school average out of range

```
CALL AcceptStudent('Envy Walker','envywalker@gmail.com',101);
```

### the resulting table

studentId	stName	email	gpa	scholarship
3325572	Amy Olson	amyolson@gmail.com	3.2	NULL
5532011	John Doe	johndoe@gmail.com	2.1	NULL
5533222	Kristyn Webber	krisweb@gmail.com	3.1	NULL
5533247	Kevin Smith	kevinsmith@gmail.com	0	1500
5533248	Eddy Jones	eddyjones@gmail.com	0	0
5533249	Eric Thomas	ericthomas@gmail.com	0	1500

Figure 2: The result table after input test scripts.