

SOURCE CODE:

```
CREATE TABLE Students
(
  studentId INT AUTO_INCREMENT,
  stName VARCHAR(30) NOT NULL,
  email VARCHAR(40),
  gpa FLOAT DEFAULT 0.0,
  scholarship INT DEFAULT 0,
  PRIMARY KEY (studentId),
  CONSTRAINT CHECK_GPA
  CHECK (gpa BETWEEN 0 AND 4.3)
);

DROP PROCEDURE AcceptStudent;
DELIMITER $$

CREATE PROCEDURE AcceptStudent(
  studentName CHAR(30),
  emailAddress CHAR(30),
  highSchoolAvg FLOAT
)
BEGIN
  DECLARE scholarship INT;
  IF highSchoolAvg > 100.0 OR highSchoolAvg < 0.0 THEN
    SIGNAL SQLSTATE '45001'
    SET MESSAGE_TEXT = 'Mark out of range!';
  END IF;
  IF highSchoolAvg > 90.0 THEN
    SET scholarship = 1500;
  ELSEIF highSchoolAvg > 85.0 THEN
    SET scholarship = 1000;
  ELSE
    SET scholarship = 0;
  END IF;
  INSERT INTO Students(stName, email, scholarship) VALUE (studentName,
  emailAddress, scholarship);
END$$
DELIMITER ;

-- tests
CALL AcceptStudent('yulong wang', '123@unb.ca', 80.0);
CALL AcceptStudent('MAX', '123@unb.ca', 88.0);
CALL AcceptStudent('CHRIS', '123@unb.ca', 95.0);
CALL AcceptStudent('XXX', '123@unb.ca', 120.0);
SELECT * FROM Students;
```

TEST RESULT:

```
MariaDB [ywang92]> CREATE PROCEDURE AcceptStudent(  
-> studentName CHAR(30),  
-> emailAddress CHAR(30),  
-> highSchoolAvg FLOAT  
-> )  
-> BEGIN  
-> DECLARE scholarship INT;  
-> IF highSchoolAvg>100.0 OR highSchoolAvg<0.0 THEN  
-> SIGNAL SQLSTATE '45001'  
-> SET MESSAGE_TEXT = 'Mark out of range!';  
-> END IF;  
-> IF highSchoolAvg > 90.0 THEN  
-> SET scholarship = 1500;  
-> ELSEIF highSchoolAvg > 85.0 THEN  
-> SET scholarship = 1000;  
-> ELSE  
-> SET scholarship = 0;  
-> END IF;  
-> INSERT INTO Students(stName, email,scholarship) VALUE (studentName, emailAddress,scholarship);  
-> END$$  
Query OK, 0 rows affected (0.00 sec)
```

```
MariaDB [ywang92]> DELIMITER ;
```

```
MariaDB [ywang92]> CALL AcceptStudent('yulong wang', '123@unb.ca', 80.0);  
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [ywang92]> CALL AcceptStudent('MAX', '123@unb.ca', 88.0);  
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [ywang92]> CALL AcceptStudent('CHRIS', '123@unb.ca', 95.0);  
Query OK, 1 row affected (0.01 sec)
```

```
MariaDB [ywang92]> CALL AcceptStudent('XXX', '123@unb.ca', 120.0);  
ERROR 1644 (45001): Mark out of range!
```

```
MariaDB [ywang92]> SELECT * FROM Students;
```

studentId	stName	email	gpa	scholarship
1	yulong wang	123@unb.ca	0	0
2	MAX	123@unb.ca	0	1000
3	CHRIS	123@unb.ca	0	1500

```
3 rows in set (0.01 sec)
```