

PL/SQL Assignment 4

Name: Krunal Rank

Roll No: U18CO081

Class: BTech 2nd Year

Division: B

TABLE CREATION:-

```
set serveroutput on size 30000;
```

```
CREATE TABLE Students(  
  
    ID NUMBER(3) PRIMARY KEY,  
  
    Name VARCHAR(50),  
  
    Age NUMBER(2),  
  
    Stream VARCHAR(50),  
  
    Marks NUMBER(3)  
  
);
```

```
INSERT INTO Students VALUES(1, 'Arun', 21, 'BSc', 55);
```

```
INSERT INTO Students VALUES(2, 'Nisarg', 22, 'BTech', 65);
```

```
INSERT INTO Students VALUES(3, 'Aarav', 24, 'MTech', 70);
```

```
INSERT INTO Students VALUES(4, 'Dhairya', 27, 'PhD', 75);
```

```
INSERT INTO Students VALUES(5, 'Dhruv', 23, 'MCA', 65);
```

```
INSERT INTO Students VALUES(6, 'Niraj', 22, 'MCom', 74);
```

```
INSERT INTO Students VALUES(7, 'Kevin', 24, 'MCA', 78);
```

```
SELECT * FROM Students;
```

1.

```
CREATE OR REPLACE TRIGGER check_age

AFTER INSERT ON Students

FOR EACH ROW

WHEN (NEW.Age > 30)

DECLARE

BEGIN

    RAISE_APPLICATION_ERROR(-20001, 'Age should not be greater than 30');

END;

/
```

```
INSERT INTO Students VALUES(8, 'Arkenson', 32, 'BTech', 82);
```

```
INSERT INTO Students VALUES(9, 'Priyam', 26, 'BSc', 94);
```

```
ORA-20001: Age should not be greater than 30
ORA-06512: at "SYSTEM.CHECK_AGE", line 4
ORA-04088: error during execution of trigger 'SYSTEM.CHECK_AGE'
```

```
1 row inserted.
```

Note that the Error is for first INSERTION!

Note that the '1 row inserted.' is for second INSERTION!

2.

```
CREATE OR REPLACE TRIGGER display_marks_changes

BEFORE UPDATE ON Students
```

```
FOR EACH ROW
```

```
WHEN (NEW.Marks > 0)
```

```
DECLARE
```

```
marks_diff number;
```

```
BEGIN
```

```
marks_diff := :NEW.Marks - :OLD.Marks;
```

```
dbms_output.put_line('Old Marks: ' || :OLD.Marks);
```

```
dbms_output.put_line('New Marks: ' || :NEW.Marks);
```

```
dbms_output.put_line('Change in Marks: ' || marks_diff);
```

```
END;
```

```
/
```

```
UPDATE Students SET Marks = 80 WHERE Name='Dhairya';
```

```
|
```

```
Old Marks: 75
```

```
New Marks: 80
```

```
Change in Marks: 5
```

```
1 row updated.
```