

```
### Working/Demonstration of Trigger
```

```
##Insertion Trigger
```

```
1. Contents of course table before insertion.
```

```
```{sql connection=dbcon}
```

```
select * from course;
```

```
```
```

0 rows

```
2. Contents of Audit table before Insertion
```

```
```{sql connection=dbcon}
```

```
select * from AuditCourse;
```

```
```
```

0 rows

```
3. Inserting into course table
```

```
```{sql connection=dbcon}
```

```
INSERT INTO course VALUES ('cs5200', 'DBMS', 90, 6500.00);
```

```
```
```

```
4. Contents of course table after insertion.
```

```
```{sql connection=dbcon}
```

```
select * from course;
```

```
```
```

| num    |
|--------|
| cs5200 |

<chr>

| title |
|-------|
| DBMS  |

<chr>

| length |
|--------|
| 90     |

<int>

| tution |
|--------|
| 6500   |

<dbl>

1 row

```
5. Contents of Audit table after Insertion
```

```
## Please Note that there is an update trigger on insert statement i.e changing into uppcase when a update statement is run so you can see an update entry as well.
```

```
```{sql connection=dbcon}
```

```
select * from AuditCourse;
```

```
```
```

| auditID | course_id |
|---------|-----------|
| 1       | cs5200    |
| 2       | cs5200    |

<int>

<chr>

| title |
|-------|
| DBMS  |

<chr>

| status                       |
|------------------------------|
| Course was updated           |
| Course added to Course table |

<chr>

| time                |
|---------------------|
| 2021-03-01 02:40:35 |
| 2021-03-01 02:40:35 |

<chr>

2 rows

```
## Constraint triggers:
1. Contents of course table before insertion.
'''{sql connection=dbcon}
select * from course;
'''
```

| num<br><chr> | title<br><chr> | lengthindays<br><int> | tution<br><dbl> |
|--------------|----------------|-----------------------|-----------------|
| cs5200       | DataBase       | 90                    | 6500            |
| 1 row        |                |                       |                 |

```
2. Inserting into course table
'''{sql connection=dbcon}
INSERT INTO course VALUES ('DS5220', 'supervised machined learning', 120, 6500.00);
'''
```

```
3. Contents of course table after Insertion. We can see that the title is in uppercase eventhough we entered in lowercase
'''{sql connection=dbcon}
select * from course;
'''
```

| num<br><chr> | title<br><chr>               | lengthindays<br><int> | tution<br><dbl> |
|--------------|------------------------------|-----------------------|-----------------|
| cs5200       | DATABASE                     | 90                    | 6500            |
| DS5220       | SUPERVISED MACHINED LEARNING | 120                   | 6500            |
| 2 rows       |                              |                       |                 |

```
##Update Trigger
```

```
1. Contents of course table before Updation.
```

```
'''{sql connection=dbcon}
```

```
select * from course;
```

```
'''
```

| num<br><chr> | title<br><chr> | lengthindays<br><int> | tution<br><dbl> |
|--------------|----------------|-----------------------|-----------------|
| cs5200       | DBMS           | 90                    | 6500            |
| 1 row        |                |                       |                 |

```
2. Contents of Audit table before Updation
```

```
'''{sql connection=dbcon}
```

```
select * from AuditCourse;
```

```
'''
```

| auditID<br><int> | course_id<br><chr> | title<br><chr> | status<br><chr>              | time<br><chr>       |
|------------------|--------------------|----------------|------------------------------|---------------------|
| 1                | cs5200             | DBMS           | Course was updated           | 2021-03-01 02:40:35 |
| 2                | cs5200             | DBMS           | Course added to Course table | 2021-03-01 02:40:35 |
| 2 rows           |                    |                |                              |                     |

```
3. Inserting into course table
```

```
'''{sql connection=dbcon}
```

```
UPDATE course SET title = "DataBase" where num = 'cs5200';
```

```
'''
```

```
4. Contents of course table after insertion.
```

```
'''{sql connection=dbcon}
```

```
select * from course;
```

```
'''
```

| num<br><chr> | title<br><chr> | lengthindays<br><int> | tution<br><dbl> |
|--------------|----------------|-----------------------|-----------------|
| cs5200       | DataBase       | 90                    | 6500            |
| 1 row        |                |                       |                 |

```
5. Contents of Audit table after Insertion
```

```
'''{sql connection=dbcon}
```

```
select * from AuditCourse;
```

```
'''
```

| auditID<br><int> | course_id<br><chr> | title<br><chr> | status<br><chr>              | time<br><chr>       |
|------------------|--------------------|----------------|------------------------------|---------------------|
| 1                | cs5200             | DBMS           | Course was updated           | 2021-03-01 02:40:35 |
| 2                | cs5200             | DBMS           | Course added to Course table | 2021-03-01 02:40:35 |
| 3                | cs5200             | DataBase       | Course was updated           | 2021-03-01 02:43:47 |
| 3 rows           |                    |                |                              |                     |