Write an example for INSTEAD OF (Before)TRIGGERS for each category (INSERT, UPDATE, DELETE)

A trigger is a set of actions that are run automatically when a specified change operation (SQL INSERT, UPDATE, or DELETE statement) is performed on a specified table. Triggers are useful for tasks such as enforcing business rules, validating input data, and keeping an audit trail.

1. **Before Insert Trigger:**
   A Before Insert trigger means that mysql will fire this trigger before the insert operation is executed.
   Syntax:

```
CREATE TRIGGER trigger_name

BEFORE INSERT

    ON table_name FOR EACH ROW


BEGIN


    -- variable declarations


    -- trigger code


END;
```

- **trigger_name**
  The name of the trigger to create.
- **BEFORE INSERT**
  It indicates that the trigger will fire before the INSERT operation is executed.
- **table_name**
  The name of the table that the trigger is created on.

Example:

```
>Create table Student_age(age INT, Name Varchar(35));

>Create Trigger before_inser_studentage BEFORE INSERT ON student_age
FOR EACH ROW
BEGIN
IF NEW.age < 0 THEN SET NEW.age = 0;
END IF;
END //

> INSERT INTO Student_age(age, Name) values(22, 'Akshat');
> INSERT INTO Student_age(age, Name) values(-10, 'Harshit');
> Select * from Student_age;
```

2. Before Update Trigger:

It is a trigger which enacts before an update is invoked. If we write an update statement, then the actions of the trigger will be performed before the update is implemented.

Syntax:

```
CREATE TRIGGER trigger_name
BEFORE UPDATE
    ON table_name FOR EACH ROW


BEGIN


    -- variable declarations


    -- trigger code


END;
```

- **trigger_name**
    The name of the trigger to create.
- **BEFORE UPDATE**
    It indicates that the trigger will fire before the UPDATE operation is executed.
- **table_name**
    The name of the table that the trigger is created on.

Example:
```
>Create table Student_age(age INT, Name Varchar(35));

>Create Trigger before_update_studentage BEFORE UPDATE ON student_age
FOR EACH ROW
BEGIN


END IF;
END //
```

3. Before Delete Trigger:

A Before Delete trigger means that mysql will fire this trigger before the delete operation is executed.

Syntax:

```
CREATE TRIGGER trigger_name

BEFORE DELETE

    ON table_name FOR EACH ROW


BEGIN


    -- variable declarations


    -- trigger code



END;
```

- **trigger_name**
  The name of the trigger to create.
- **BEFORE DELETE**
  It ndicates that the trigger will fire before the DELETE operation is executed.
- **table_name**
  The name of the table that the trigger is created on.

Example:

```
>Create table Student_age(age INT, Name Varchar(35));

>Create Trigger before_delete_studentage BEFORE Delete ON student_age
FOR EACH ROW
BEGIN

END IF;
END //
```