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.1Apex Trigger

Apex can be invoked by using triggers. Apex triggers enable you to perform custom actions before or after changes to Salesforce records, such as insertions, updates, or deletions.

A trigger is Apex code that executes before or after the following types of operations:

- insert
- update
- delete
- merge
- upsert
- undelete

For example, you can have a trigger run before an object's records are inserted into the database, after records have been deleted, or even after a record is restored from the Recycle Bin.

You can define triggers for top-level standard objects that support triggers, such as a Contact or an Account, some standard child objects, such as a CaseComment, and custom objects. To define a trigger, from the object management settings for the object whose triggers you want to access, go to Triggers.

There are primarily two types of Apex Triggers:

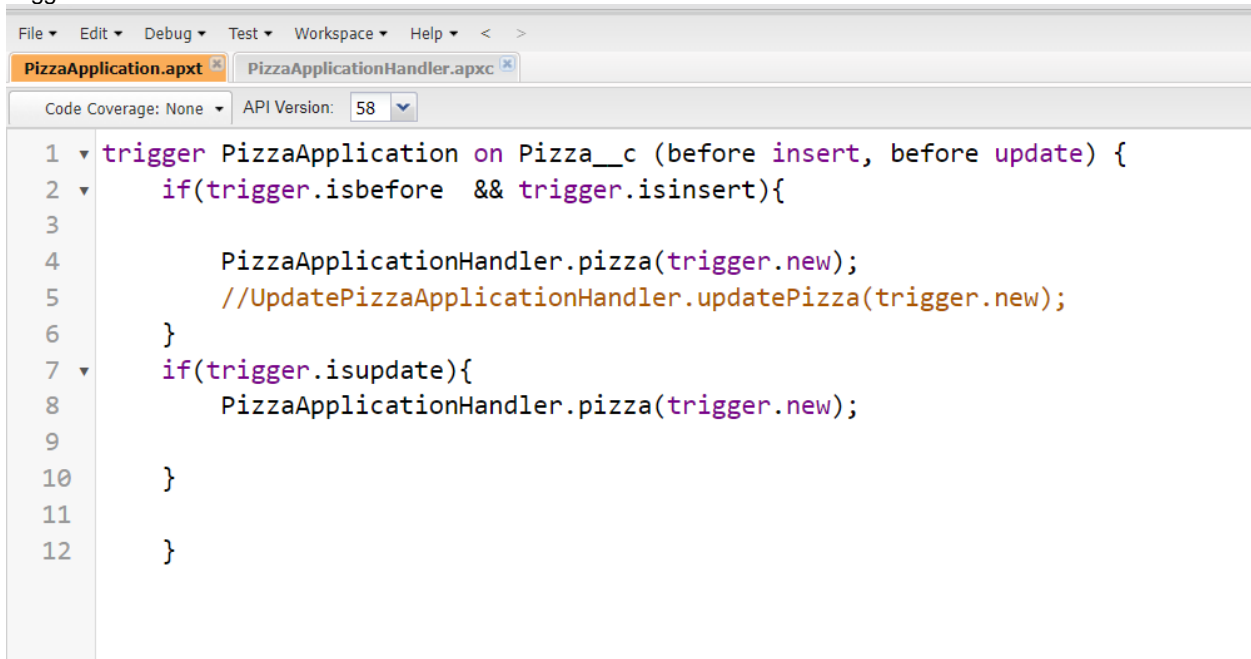
Before Trigger: This type of trigger in Salesforce is used either to update or validate the values of a record before they can be saved into the database. So, basically, the before trigger validates the record first and then saves it. Some criteria or code can be set to check data before it gets ready to be inserted into the database.

After Trigger: This type of trigger in Salesforce is used to access the field values set by the system and affect any change in the record. In other words, the after trigger makes changes to the value from the data inserted in some other record.

Activity- 1

Use Case: This Trigger works for the Pizza Object where the scenario is like whenever the customer is selecting the Pizza whether it is veg Pizza or Non-veg Pizza According to the selection of Pizza The Amount will be reflected in the "Amount" Field.

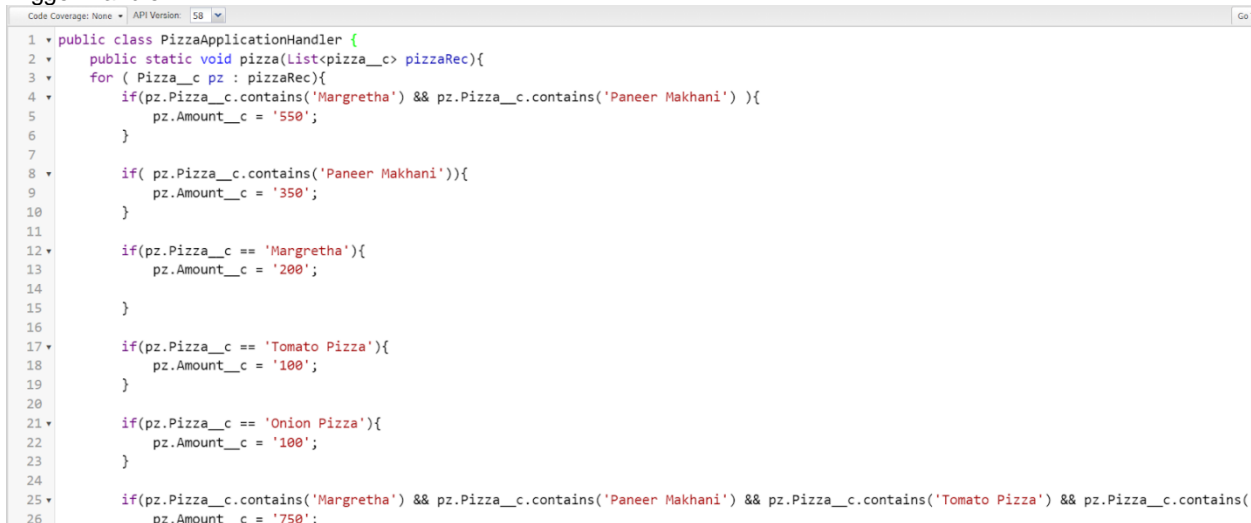
Trigger



The screenshot shows an IDE window with two tabs: 'PizzaApplication.apxt' and 'PizzaApplicationHandler.apxc'. The 'PizzaApplication.apxt' tab is active, displaying a trigger definition. The trigger is named 'PizzaApplication' and is set to fire 'on Pizza__c' with the event 'before insert, before update'. The trigger body contains two conditional blocks: one for 'before insert' (trigger.isbefore && trigger.isinsert) and one for 'before update' (trigger.isupdate). Both blocks call 'PizzaApplicationHandler.pizza(trigger.new);'. The IDE interface includes a menu bar (File, Edit, Debug, Test, Workspace, Help) and a toolbar with 'Code Coverage: None' and 'API Version: 58'.

```
1 trigger PizzaApplication on Pizza__c (before insert, before update) {  
2     if(trigger.isbefore && trigger.isinsert){  
3  
4         PizzaApplicationHandler.pizza(trigger.new);  
5         //UpdatePizzaApplicationHandler.updatePizza(trigger.new);  
6     }  
7     if(trigger.isupdate){  
8         PizzaApplicationHandler.pizza(trigger.new);  
9  
10    }  
11  
12    }
```

Trigger Handler:



The screenshot shows an IDE window with the 'PizzaApplicationHandler.apxc' tab active, displaying the 'pizza' method. The method is a public static void that takes a list of 'pizza__c' objects as input. It iterates through the list and applies conditional logic to update the 'Amount__c' field based on the pizza type and its ingredients. The logic includes conditions for 'Margretha', 'Paneer Makhani', 'Tomato Pizza', and 'Onion Pizza'. The IDE interface includes a menu bar (File, Edit, Debug, Test, Workspace, Help) and a toolbar with 'Code Coverage: None' and 'API Version: 58'.

```
1 public class PizzaApplicationHandler {  
2     public static void pizza(List<pizza__c> pizzaRec){  
3         for ( Pizza__c pz : pizzaRec){  
4             if(pz.Pizza__c.contains('Margretha') && pz.Pizza__c.contains('Paneer Makhani')){  
5                 pz.Amount__c = '550';  
6             }  
7  
8             if( pz.Pizza__c.contains('Paneer Makhani')){  
9                 pz.Amount__c = '350';  
10            }  
11  
12            if(pz.Pizza__c == 'Margretha'){  
13                pz.Amount__c = '200';  
14            }  
15  
16            if(pz.Pizza__c == 'Tomato Pizza'){  
17                pz.Amount__c = '100';  
18            }  
19  
20            if(pz.Pizza__c == 'Onion Pizza'){  
21                pz.Amount__c = '100';  
22            }  
23  
24            if(pz.Pizza__c.contains('Margretha') && pz.Pizza__c.contains('Paneer Makhani') && pz.Pizza__c.contains('Tomato Pizza') && pz.Pizza__c.contains('Onion Pizza')){  
25                pz.Amount__c = '750';  
26            }  
27        }  
28    }  
29 }
```

Trigger Code:

```
trigger PizzaApplication on Pizza__c (before insert, before update) {  
    if(trigger.isbefore && trigger.isinsert){  
  
        PizzaApplicationHandler.pizza(trigger.new);  
        //UpdatePizzaApplicationHandler.updatePizza(trigger.new);  
    }  
    if(trigger.isupdate){  
        PizzaApplicationHandler.pizza(trigger.new);  
    }  
}
```

Trigger Handler:

```
public class PizzaApplicationHandler {
    public static void pizza(List<pizza__c> pizzaRec){
        for ( Pizza__c pz : pizzaRec){
            if(pz.Pizza__c.contains('Margretha') && pz.Pizza__c.contains('Paneer Makhani') ){
                pz.Amount__c = '550';
            }
            if( pz.Pizza__c.contains('Paneer Makhani')){
                pz.Amount__c = '350';
            }
            if(pz.Pizza__c == 'Margretha'){
                pz.Amount__c = '200';
            }
            if(pz.Pizza__c == 'Tomato Pizza'){
                pz.Amount__c = '100';
            }
            if(pz.Pizza__c == 'Onion Pizza'){
                pz.Amount__c = '100';
            }
            if(pz.Pizza__c.contains('Margretha') && pz.Pizza__c.contains('Paneer Makhani') && pz.Pizza__c.contains('Tomato Pizza') && pz.Pizza__c.contains('Onion Pizza') ){
                pz.Amount__c = '750';
            }
            if(pz.Pizza__c.contains('Margretha') && pz.Pizza__c.contains('Paneer Makhani') && pz.Pizza__c.contains('Tomato Pizza'))
                pz.Amount__c = '750';
            }
            if(pz.Pizza__c == 'Chicken Pizza'){
                pz.Amount__c = '400';
            }
            if(pz.Pizza__c == 'Paneer Chicken'){
                pz.Amount__c = '400';
            }
            if(pz.Pizza__c.contains('Paneer Chicken') && pz.Pizza__c.contains('Chicken Pizza') ){
                pz.Amount__c = '800';
            }
            if(pz.Pizza__c.contains('Paneer Chicken') && pz.Pizza__c.contains('Paneer Makhani') ){
                pz.Amount__c = '750';
            }
            if(pz.Pizza__c.contains('Paneer Chicken') && pz.Pizza__c.contains('Margretha') ){
                pz.Amount__c = '750';
            }
            if(pz.Pizza__c.contains('Paneer Chicken') && pz.Pizza__c.contains('Tomato Pizza') ){
                pz.Amount__c = '500';
            }
            if(pz.Pizza__c.contains('Paneer Chicken') && pz.Pizza__c.contains('Onion Pizza') ){
                pz.Amount__c = '500';
            }
        }
    }
}
```

Schedule Apex

```

1 public class PizzaDiscountScheduler implements Schedulable {
2     public void execute(SchedulableContext sc) {
3         // Logic for sending the email
4         // if (System.now() == System.DayOfWeek.Sunday) {
5             List<Customer_Detail__c> pz = new List<Customer_Detail__c>();
6             String s='gmail.com';
7             for(Customer_Detail__c c:pz)
8             {
9                 if(c.Email__c.contains(s))
10                {
11                    system.debug('haiiiii');
12                }
13            }
14
15            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
16            email.setToAddresses(new List<String>{'user@example.com'});
17            email.setSubject('Special Sunday Discount');
18            email.setPlainTextBody('Enjoy a 20% discount on all pizzas today!');
19            Messaging.sendEmail(new List<Messaging.SingleEmailMessage>{email});
20
21        }
22    }
}

```

Schedule Apex For Frequently Visited Customer

```

public class PizzaDiscountScheduler implements Schedulable {
    public void execute(SchedulableContext sc) {
        // Logic for sending the email
        // if (System.now() == System.DayOfWeek.Sunday) {
            List<Customer_Detail__c> pz = new List<Customer_Detail__c>();
            String s='gmail.com';
            for(Customer_Detail__c c:pz)
            {
                if(c.Email__c.contains(s))
                {
                    system.debug('haiiiii');
                }
            }
            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
            email.setToAddresses(new List<String>{'user@example.com'});
            email.setSubject('Special Sunday Discount');
            email.setPlainTextBody('Enjoy a 20% discount on all pizzas today!');
            Messaging.sendEmail(new List<Messaging.SingleEmailMessage>{email});
        }
    }
}

```

For Making the Schedule to send Mail To the Customer Follow the steps below:
Click on the Gear Icon? Go to the Home Tab ? In the Quick Find Box ? Search for Apex Class

Setup Home

Get Started with Einstein Bots

Mobile Publisher

Real-time Collaborative Docs

Most Recently Used

NAME	TYPE	OBJECT
Pizza	Custom Object Definition	

2. Click on the Schedule Apex ? Give Job Name As ? Schedule Pizza.

Apex Classes

Estimate your organization's code coverage

Compile all classes

View: All Create New View

Developer Console New Generate from WSDL Run All Tests Schedule Apex

Action	Name	Namespace Prefix	Api Version	Status	Size Without Comments	Last Modified By	Has Trace Flags
Edit Del Security	AttendeeEventsService		56.0	Active	969	Shivam Upadhye, 05/05/2023, 12:25 pm	<input type="checkbox"/>
Edit Del Security	ChangePasswordController		57.0	Active	376	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>
Edit Del	ChangePasswordControllerTest		57.0	Active	480	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>
Edit Del Security	CommunitiesLandingController		57.0	Active	203	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>
Edit Del	CommunitiesLandingControllerTest		57.0	Active	502	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>
Edit Del Security	CommunitiesLoginController		57.0	Active	393	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>
Edit Del	CommunitiesLoginControllerTest		57.0	Active	320	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>
Edit Del Security	CommunitiesSelfRegConfirmController		57.0	Active	118	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>
Edit Del	CommunitiesSelfRegConfirmControllerTest		57.0	Active	282	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>
Edit Del Security	CommunitiesSelfRegController		57.0	Active	2,269	Shivam Upadhye, 08/05/2023, 10:08 am	<input type="checkbox"/>

3. Click on Apex Class Lookup ? Select PizzaDiscountScheduler In Recently Viewed Apex Class

Enter Apex Code

```
1 // Schedule the job to run every Monday at 8 AM
2 String cronExp = '0 0 8 ? * SUN';
3
4 // Create an instance of the ExpenseReportProcessor class
5 ExpenseReportProcessor expenseProcessor = new ExpenseReportProcessor();
6
7 // Schedule the job using the System.schedule method
8 System.schedule('Expense Report Processor', cronExp, expenseProcessor);
```

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Schedule Apex For Frequently Visited Customer

```
public class PizzaDiscountScheduler implements Schedulable {
    public void execute(SchedulableContext sc) {
        // Logic for sending the email
        // if (System.now() == System.DayOfWeek.Sunday) {
            List<Customer_Detail__c> pz = new List<Customer_Detail__c>();
            String s='gmail.com';
            for(Customer_Detail__c c:pz)
            {
                if(c.Email__c.contains(s))
                {
                    system.debug('haiiiii');
                }
            }
            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
            email.setToAddresses(new List<String>{'user@example.com'});
            email.setSubject('Special Sunday Discount');
            email.setPlainTextBody('Enjoy a 20% discount on all pizzas today!');
            Messaging.sendEmail(new List<Messaging.SingleEmailMessage>{email});
        }
    }
}

// Schedule the job to run every Monday at 8 AM
String cronExp = '0 0 8 ? * SUN';

// Create an instance of the ExpenseReportProcessor class
ExpenseReportProcessor expenseProcessor = new ExpenseReportProcessor();

// Schedule the job using the System.schedule method
System.schedule('Expense Report Processor', cronExp, expenseProcessor);
```