

A thick teal line graphic on the left side of the slide, starting from the top left and extending downwards with several sharp angles.

# PROCESS FLOW



# Process Flow: An Overview

## WHAT ?

A visual representation of a combination of steps that define a business logic.

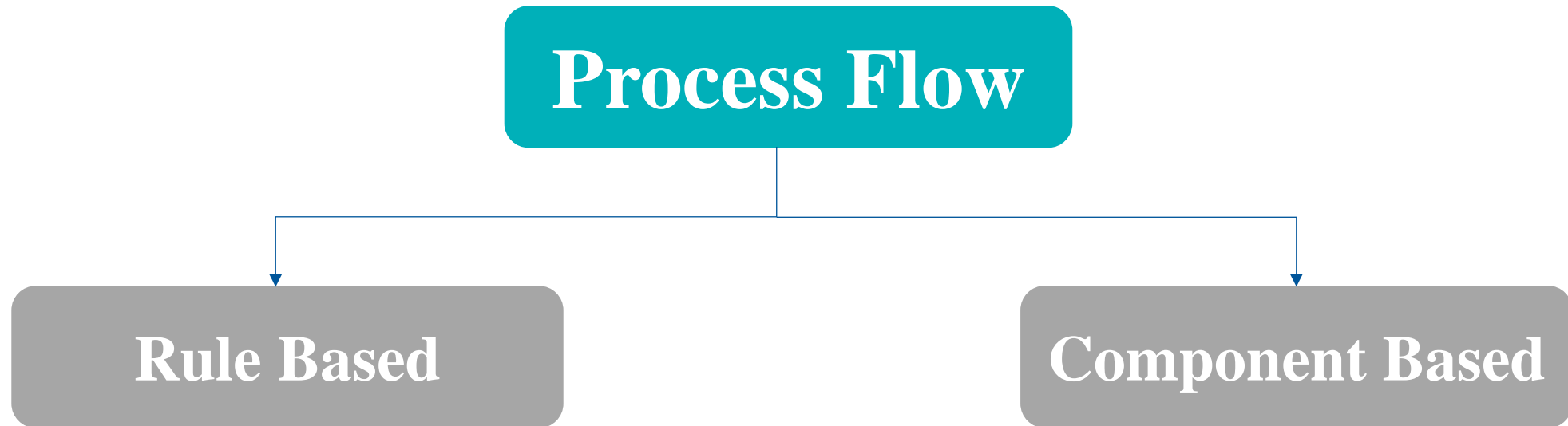
## WHY ?

To perform certain actions on the occurrence of any event or at scheduled time.

## HOW ?

By defining process components, process steps, their properties & when to fire them.

# Types of Process Flows



# Rule Based Process Flow

- Rule consist of set of statements to execute based on application logic
- Rules are written using SQL or VB.NET scripts.
- VB.NET scripts use pre-defined objects to access various properties.

# Pre-defined Objects

Object	Class	Usage
oDataAction	<code>Aptify.Framework.DataServices.AptifyDataAction</code>	Retrieve values from the Database
oProperties	<code>Aptify.Framework.Application.AptifyProperties</code>	Retrieve from and add to the process flow's Context Object
oResultCode	<code>Aptify.Framework.BusinessLogic.ProcessPipeline.ResultCode</code>	To define Result Codes for a particular step

Implement:  
**IProcessComponent**  
interface

**Write Code & Compile**

**Create Database Object  
(for SP, if needed)**

**Create Object Repository & upload  
DLL**

**Restart Aptify and make sure DLL  
is downloaded in the Aptify folder**

**Create Process Flow Component &  
the Process Flow**

**Configure Event Definition &  
Event Handler**

References needed:  
-AptifyApplication  
-AptifyExceptionManagement  
-AptifyUtility  
-AptifyProcessFlowEngine

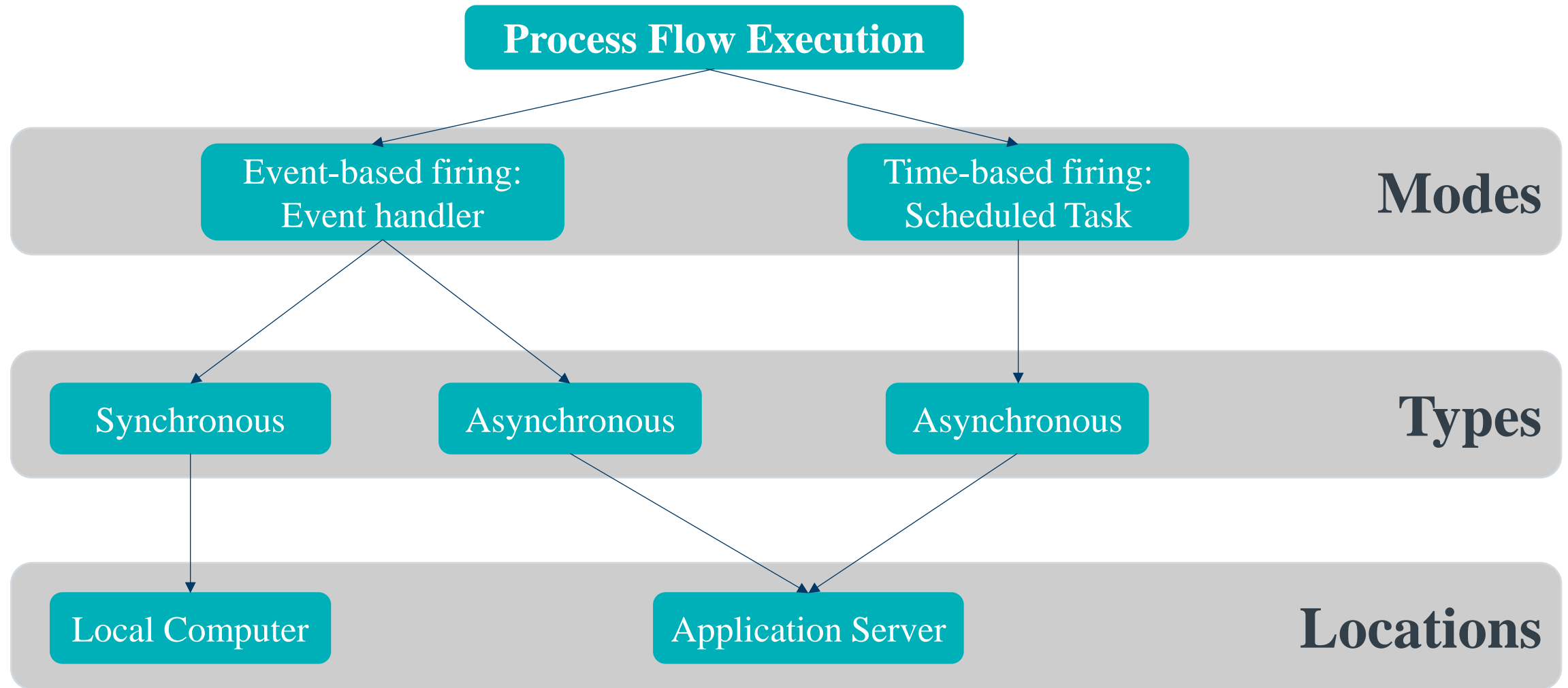
Assembly Name:  
As written in the  
properties page  
of your solution

Class Name:  
Copy it from  
“Classes” tab of  
the Object

# Rule Based vs Component Based

Rule Based	Component Based
Power/Capabilities: SAME	
Compiled at Runtime → More time to execute.	Pre-compiled → Lesser time to execute.
Written in Aptify editor → 1. Difficult to notice typos/syntax errors. 2. Difficult to debug.	Written in Visual Studio → 1. Typos/syntax errors easily noticed/shown by the IDE itself. 2. Easy to debug.
Not supported in Aptify Web.	Supported by Aptify Web.
Analogous to writing SQL query in code.	Analogous to stored procedure.

# Execution Mode, Type, & Location





# Event Definition

- The Event Definitions service stores the events that an organization can use to trigger a process flow.
- These events may be linked to entities (record events such as creating, updating, saving, or deleting a record), to applications, or may be globally applied to the entire Aptify framework.
- **Example:**
  1. BeforeSave, AfterSave
  2. BeforeValidate, AfterValidate
  3. BeforeRecordCreated, AfterRecordCreated.

# Event Handler

- Event Definitions define events.
- Process Flows are the actions to be taken on occurrence of specified event.
- Event handlers are the tools that fire a specified Process Flow when the concerned event occurs. They link Process Flows to Events.
- Sequence No. is used to determine the order of multiple Event Handlers of a single event. If Sequence Nos are same, handler with the lowest ID gets highest priority.

# Component Based Process Flow

- A component specifies an object, which contains the code that executes the step's functionality.
- Components can be predefined or user defined.
- User defined components need an Object to be created in the Object Repository.

## Example:

Aptify automatically generates four process components (known as the CRUD (Create, Read, Update, and Delete) components) each time you save a new entity or regenerate an existing entity in Aptify.

# Scheduled Task: An Overview

## WHAT ?

A task that can be configured to run a Process Flow at a specified date & time & frequency.

## WHY ?

An organization might use Scheduled Tasks to run lengthy processes after business hours when users are less likely to be impacted or to execute the same processes on a regular schedule without the need for manual intervention.

## HOW ?

At the time that the task is scheduled to occur, the Windows Scheduler triggers a Process Flow Run, which is then executed by the specified Application Server.

# Summary

- Process flows are used to process business logic based on event on an entity, like BeforeSave, AfterSave, AfterLoad, OrderShipped etc.
- There are two types of process flows:
  - **Component Based:** Where we need to create class library (Code is in compiled dll format) .
  - **Rule Based:** We need to write code/script in VB.NET (Code executes runtime).
- Event Definitions store the Events.
- Event Handlers are used to link process flows to Events within Aptify (We can create our own custom events as well).
- Scheduled Tasks are used to execute pre-defined Process Flows at a specified date and time.



Thank you.