**Behavioral Design Patterns**

Behavioral design patterns are concerned with algorithms and the assignment of responsibilities between objects.

Here are some types of Behavioral Design Patterns:

1. Visitor:

The Visitor design pattern is a behavioral design pattern that allows you to separate the algorithm from the objects on which it operates. It enables adding new operations to a group of objects without modifying their structure.

Ex:An online shopping cart, where we have different types of items such as books, electronics, and clothing. We want to implement a feature that calculates the total shipping cost for the items in the cart

Ex: A financial application that deals with different types of accounts, such as Checking Accounts and Savings Accounts. We'll use the Visitor design pattern to calculate the interest accrued on each account based on its type.

1. Strategy:

The Strategy design pattern is a behavioral design pattern that allows an object to change its behavior at runtime by encapsulating different algorithms or strategies within interchangeable components.

Ex: An online shopping application that offers various payment methods to its customers: Credit Card, PayPal, and Bitcoin. Each payment method follows a different strategy for processing payments. We can implement the Strategy design pattern to handle these payment methods efficiently.

Ex: A navigation application that suggests different routes to the users based on their preferred travel mode: Driving, Walking, or Cycling.

1. Observer:

The Observer design pattern is a behavioral design pattern that allows an object, known as the subject, to maintain a list of its dependents, known as observers, and notify them automatically of any state changes, usually by calling a method on the observers.

Ex: Consider a weather monitoring application that provides real-time weather updates to various displays, such as a mobile app, a web page, and a weather station. In this scenario, the Observer design pattern can be applied.

Ex: A channel in youtube: when a new is uploaded then all it’s subscribers will receive a notification regarding the uploaded video.