Design Patterns

W2A1

Topic: - Write a Program to implement Adapter Design Patternit

Github Link:- <https://github.com/RajAditya01/Design-And-Pattern>

Definition :-

Adapter pattern works as a bridge between two incompatible interfaces. This type of design pattern comes under structural pattern as this pattern combines the capability of two independent interfaces.

This pattern involves a single class which is responsible to join functionalities of independent or incompatible interfaces. A real life example could be a case of card reader which acts as an adapter between memory card and a laptop. You plugin the memory card into card reader and card reader into the laptop so that memory card can be read via laptop.

Code: -

**package**adapter;  
  
**interface**WebDriver {  
  **public void**getElement();  
  **public void**selectElement();  
}  
  
  
**class**ChromeDriver **implements**WebDriver {  
  
  @Override  
  **public void**getElement() {  
    System.out.println("Get element from ChromeDriver");  
  }  
  
  @Override  
  **public void**selectElement() {  
    System.out.println("Select element from ChromeDriver");  
      
  }  
    
}  
  
**class**IEDriver {  
  
  **public void**findElement() {  
    System.out.println("Find element from IEDriver");  
  }  
  
  **public void**clickElement() {  
    System.out.println("Click element from IEDriver");  
  }  
    
}  
  
**class**WebDriverAdapter **implements**WebDriver {  
  
  IEDriver ieDriver;  
    
  **public**WebDriverAdapter(IEDriver ieDriver) {  
    **this**.ieDriver = ieDriver;  
  }  
    
  @Override  
  **public void**getElement() {  
    ieDriver.findElement();  
      
  }  
  
  @Override  
  **public void**selectElement() {  
    ieDriver.clickElement();  
  }  
    
}  
  
**public class**AdapterDesignPattern {  
  
  **public static void**main(String[] args) {  
    ChromeDriver a = **new**ChromeDriver();  
    a.getElement();  
    a.selectElement();  
      
    IEDriver e = **new**IEDriver();  
    e.findElement();  
    e.clickElement();  
      
    WebDriver wID = **new**WebDriverAdapter(e);  
    wID.getElement();  
    wID.selectElement();  
      
  }  
  
}

}

Output: -

