**Experiment No-5**

**Title:** Write a program to handle different demonstrate use of Adapter class.

**Aim:** Able to understand the concept and different types of adapter classes in java.

Able to develop an application using adapter class.

**Theory:**

# **Java Adapter Classes**

Java adapter classes provide the default implementation of listener [*interfaces*](https://www.javatpoint.com/interface-in-java). If you inherit the adapter class, you will not be forced to provide the implementation of all the methods of listener interfaces. So it saves code.

* It assists the unrelated classes to work combinedly.
* It provides ways to use classes in different ways.
* It increases the transparency of classes.
* It provides a way to include related patterns in the class.
* It provides a pluggable kit for developing an application.
* It increases the reusability of the class.

The adapter classes are found in **java.awt.event, java.awt.dnd** and **javax.swing.event** [packages](https://www.javatpoint.com/package). The Adapter classes with their corresponding listener interfaces are given below.

## java.awt.event Adapter classes

|  |  |
| --- | --- |
| **Adapter class** | **Listener interface** |
| WindowAdapter | [WindowListener](https://www.javatpoint.com/java-windowlistener) |
| KeyAdapter | [KeyListener](https://www.javatpoint.com/java-keylistener) |
| MouseAdapter | [MouseListener](https://www.javatpoint.com/java-mouselistener) |
| MouseMotionAdapter | [MouseMotionListener](https://www.javatpoint.com/java-mousemotionlistener) |
| FocusAdapter | FocusListener |
| ComponentAdapter | ComponentListener |
| ContainerAdapter | ContainerListener |

**Conclusion:** In this experiment we have learnt different adapter classes.

**Exercise:**

1. Write a program to demonstrate the use of window adapter class.
2. Write a program to mouse motion adapter class to implement only one method mouse dragged.