**Section 1: Define**

Anonymous Class Listeners-

Anonymous classes enable you to make your code more concise. They enable you to declare and instantiate a class at the same time. They are like local classes except that they do not have a name. Use them if you need to use a local class only once.

MouseListener-

The listener interface for receiving "interesting" mouse events (press, release, click, enter, and exit) on a component. (To track mouse moves and mouse drags, use the MouseMotionListener.)

The class that is interested in processing a mouse event either implements this interface (and all the methods it contains) or extends the abstract MouseAdapter class (overriding only the methods of interest).

The listener object created from that class is then registered with a component using the component's addMouseListener method. A mouse event is generated when the mouse is pressed, released clicked (pressed and released). A mouse event is also generated when the mouse cursor enters or leaves a component. When a mouse event occurs, the relevant method in the listener object is invoked, and theMouseEvent is passed to it.

MouseMotionListener-

The listener interface for receiving mouse motion events on a component. (For clicks and other mouse events, use the MouseListener.)

The class that is interested in processing a mouse motion event either implements this interface (and all the methods it contains) or extends the abstract MouseMotionAdapter class (overriding only the methods of interest).

The listener object created from that class is then registered with a component using the component's addMouseMotionListener method. A mouse motion event is generated when the mouse is moved or dragged. (Many such events will be generated). When a mouse motion event occurs, the relevant method in the listener object is invoked, and the MouseEvent is passed to it.

|  |  |
| --- | --- |
| KEY IDENTIFIERS | NAME KEY ON THE KEY BOARD |
| VK\_HOME | Home |
| VK\_END | End |
| VK\_PGUP | PageUp |
| VK\_PGDN | PageDown |
| VK\_UP | Arrow key up |
| VK\_DOWN | Arrow key down |
| VK\_LEFT | Arrow Key Left |
| VK\_RIGHT | Arrow key Right |
| VK\_ESCAPE | Esc |
| VK\_TAB | Tab |
| VK\_CONTROL | Ctrl |
| VK\_TAB | Tab |
| VK\_CONTROL | Ctrl |
| VK\_SHIFT | Shift |
| VK\_BACK\_SPACE | <-BackSpace |
| VK\_CAPS\_LOCK | Caps Lock |
| VK\_NUM\_LOCK | Num Lock |
| VK\_ENTER | Enter |
| VK\_UNDEFINED | KeyCode that’s unKnown |
| VK\_F1 to VK\_F12 | F1 to F12 |
| VK\_0 to VK\_9 | 0 to 9 |
| VK\_A to VK\_Z | A to Z |

Task 1:

**USE OBJECT ORIENTATED PROGRAM DESIGN TO SOLVE PROBLEM**

(Display a Character) Write a program to get a character input from the key-board and display the character where the mouse points.

