



RAMA UNIVERSITY

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FACULTY OF ENGINEERING & TECHNOLOGY

BCS-503: Object Oriented Techniques

Lecture-37

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Computer Science & Engineering

OBJECTIVES

In this PPT, you will learn to:

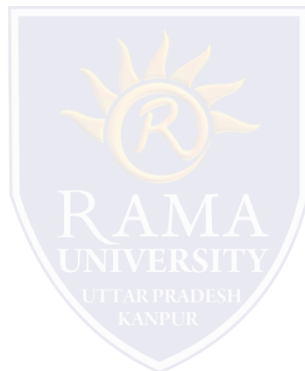
- ❖ Explain Event Listener

- ❖ Describe Layout Manager

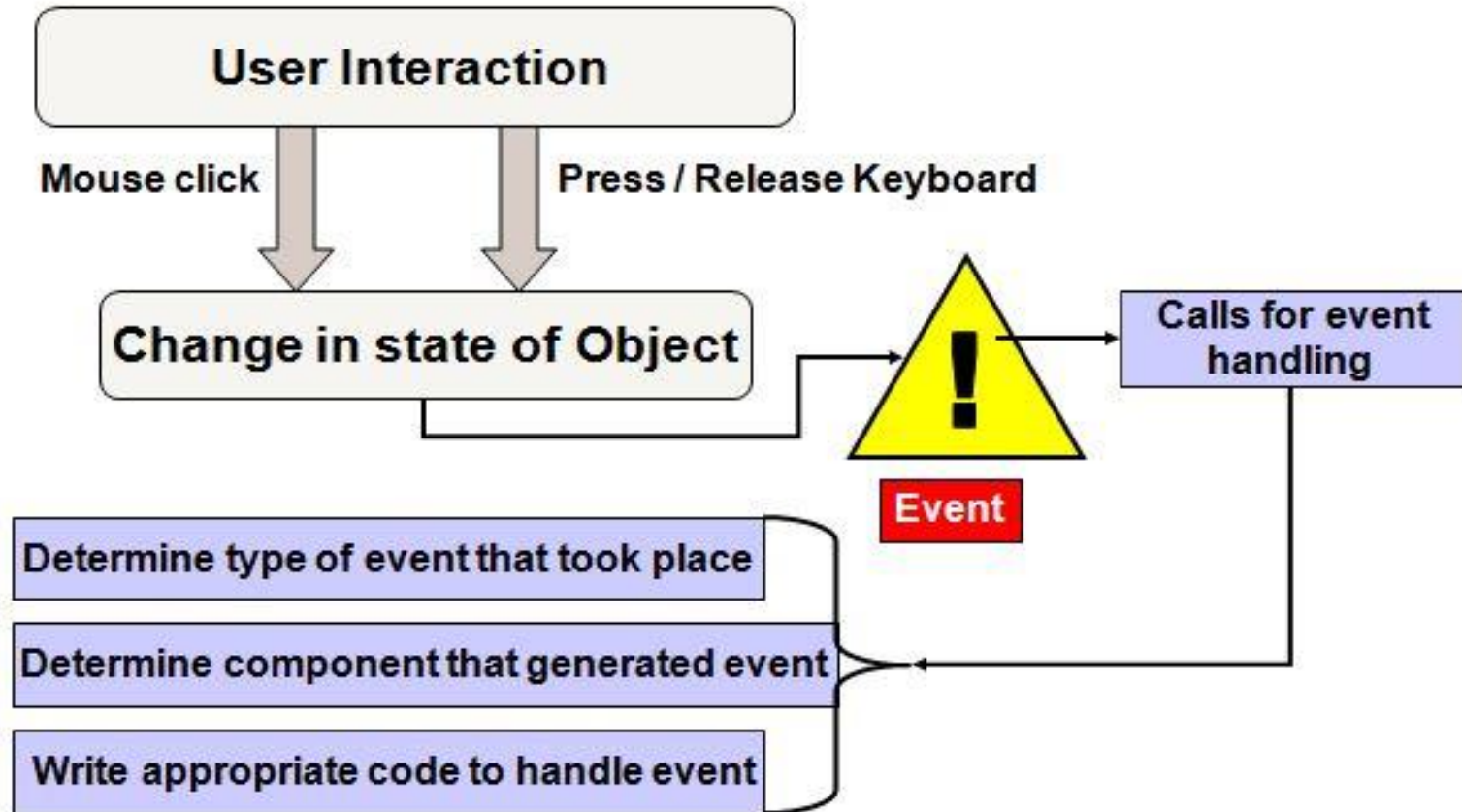
 - ❖ Border Layout

 - ❖ FlowLayout

 - ❖ GridLayout

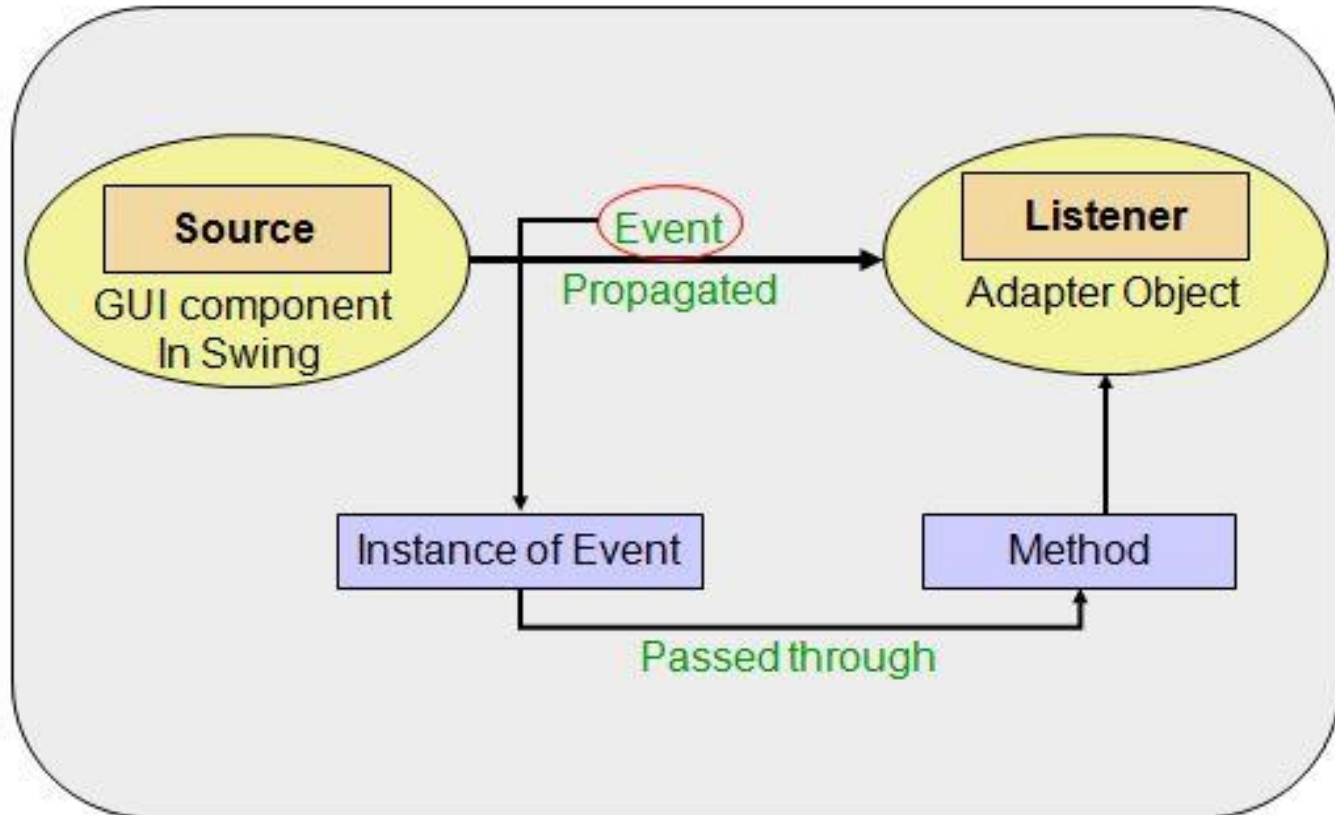


EVENT HANDLERS



EVENT HANDLERS (Contd.)

Event Delegation Model



EVENT HANDLER(Contd.)

Event Class	Interface
ActionEvent	ActionListener
AdjustmentEvent	AdjustmentListener
ComponentEvent	ComponentListener
FocusEvent	FocusListener
ItemEvent	ItemListener
WindowEvent	WindowListener
TextEvent	TextListener
MouseEvent	MouseListener, MouseMotionListener
KeyEvent	KeyListener

LAYOUT MANAGER

- Screen components on a user interface can be arranged in a serial fashion or grid-like manner using Layout manager.

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- The layout manager classes are a set of classes that

- Implement **java.AWT.LayoutManager** interface

- Help to position the components in a container

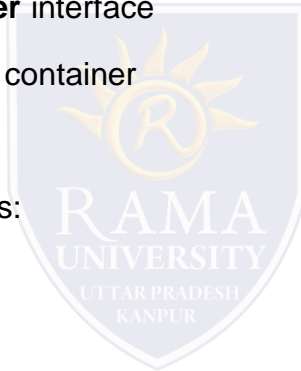
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- The various layouts available in Java are as follows:

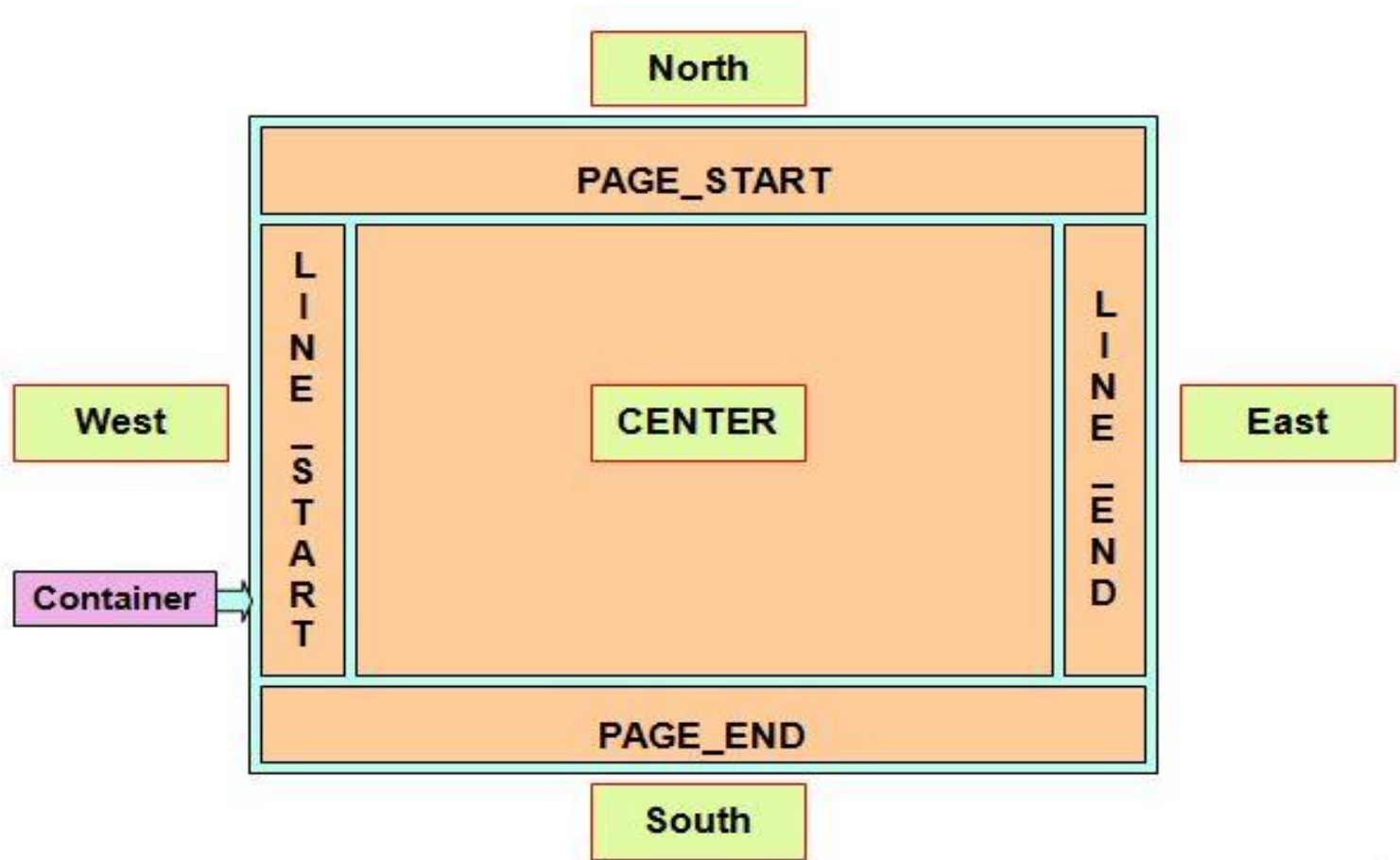
- FlowLayout

- BorderLayout

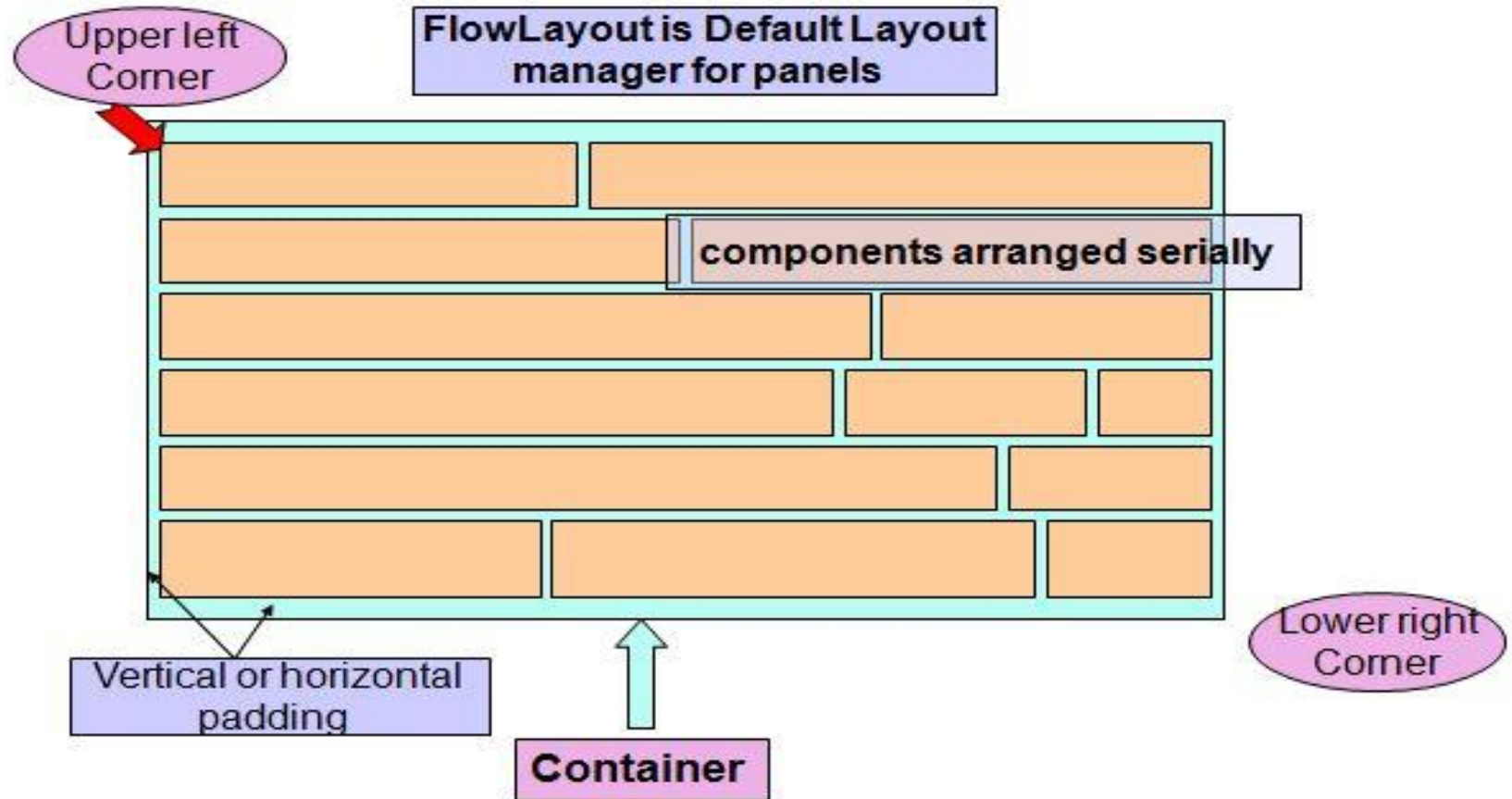
- GridLayout



BORDERLAYOUT MANAGER

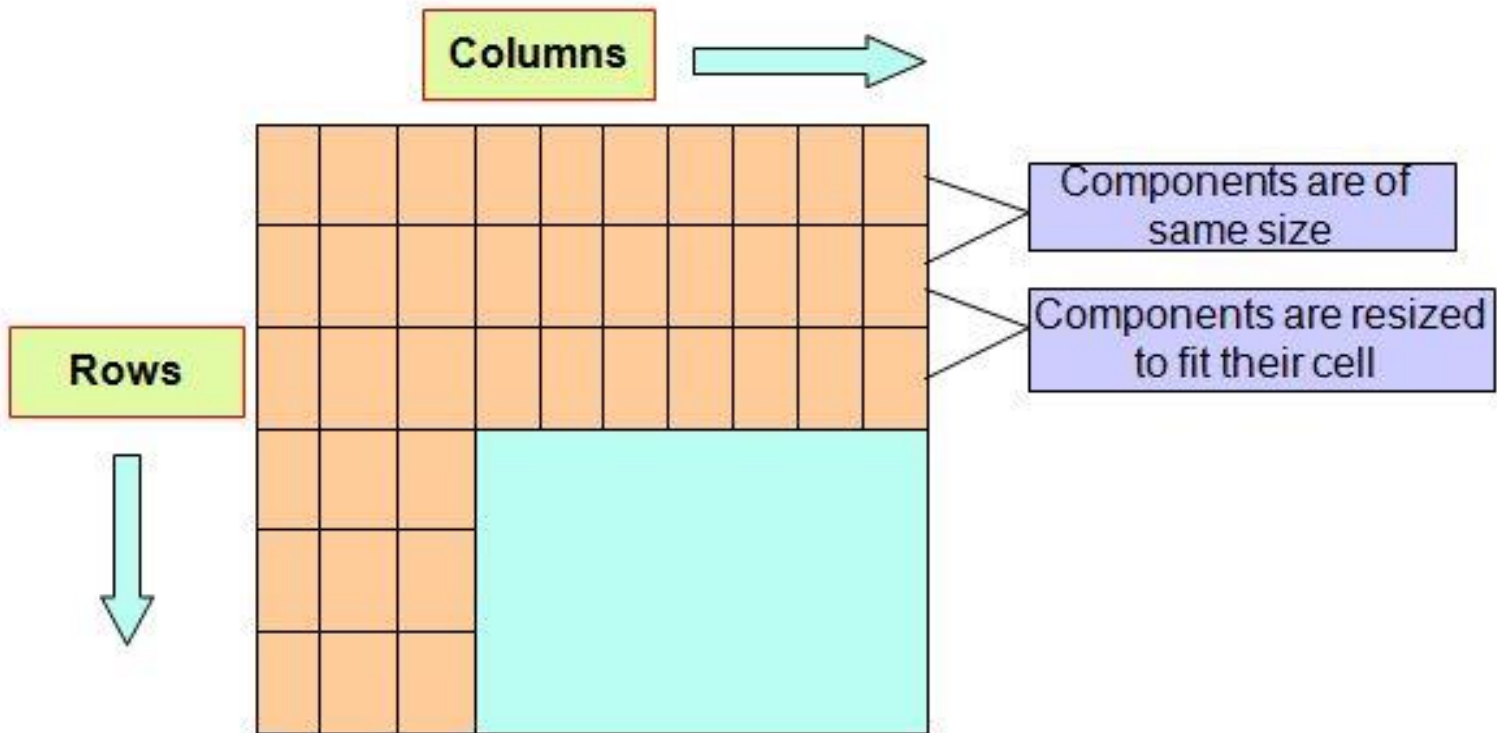


FLOWLAYOUT MANAGER



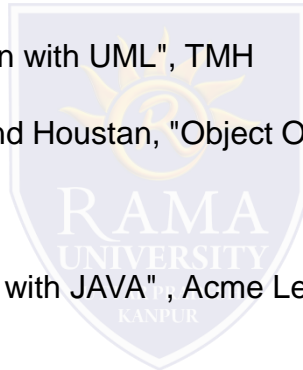
GRIDLAYOUT MANAGER

Specifying the number of rows and columns in the grid creates the GridLayout



REFERENCES

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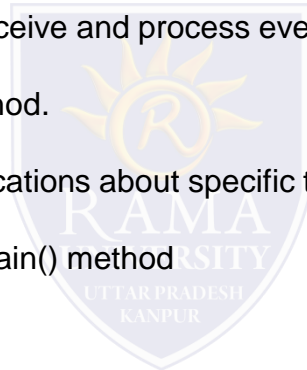


MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q1. Which of the following steps are must for any kind of event handling?

- a) Implement the listener method(s) to receive and process event related notifications.
- b) Adding mouse listener in the init() method.
- c) Register the source(s) to receive notifications about specific type of event(s).
- d) Adding mouse motion listener in the main() method

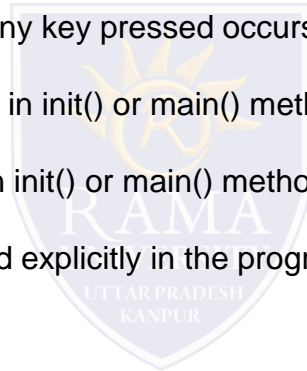


MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q2. Which of the following is(are) NOT related to a keyboard event?

- a) The class KeyEvent is used to notify if any key pressed occurs or not.
- b) The KeyListener should be added either in init() or main() method.
- c) RequestFocus should be added either in init() or main() method.
- d) The class InputEvent should be imported explicitly in the program.



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q3. Which layout manager places components in one of five regions: north, south, east, west, and center?

- a) CardLayout
- b) GridLayout
- c) BorderLayout
- d) FlowLayout



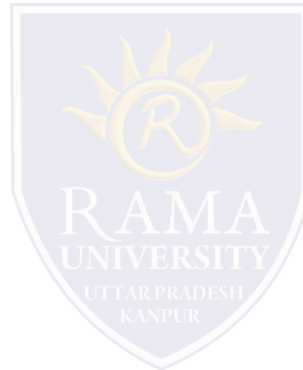
MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q4. What is the name of the method used to get the timestamp of an event in AWT ActionEvent

Class ?

- a) getWhen().
- b) getModifiers().
- c) paramString().
- d) getActionCommand().

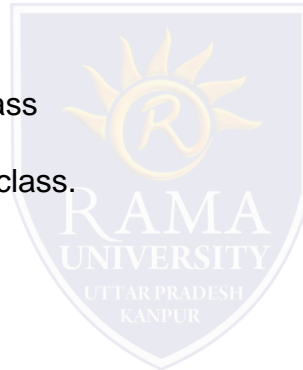


MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q5. What is the name of the method used to retrieve the label of a button in AWT?

- a) getLabel() method of Button class.
- b) setLabel(String str) method of Button class
- c) getActionCommand() method of Button class.
- d) addNotify() method of Button class.



In this PPT, you learned that:

- To handle events, event handlers are available that are to be manipulated to perform the desired action.
- A Layout Manager automatically positions components within a container.

