



RAMA UNIVERSITY

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FACULTY OF ENGINEERING & TECHNOLOGY

BCS-503: Object Oriented Techniques

Lecture-35

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Computer Science & Engineering

OBJECTIVES

In this PPT, you will learn to:

- ❖ Explain the Abstract Window Toolkit (AWT)

- ❖ Explain Swing

- ❖ Compare AWT with Swing

- ❖ Describe Swing Container components

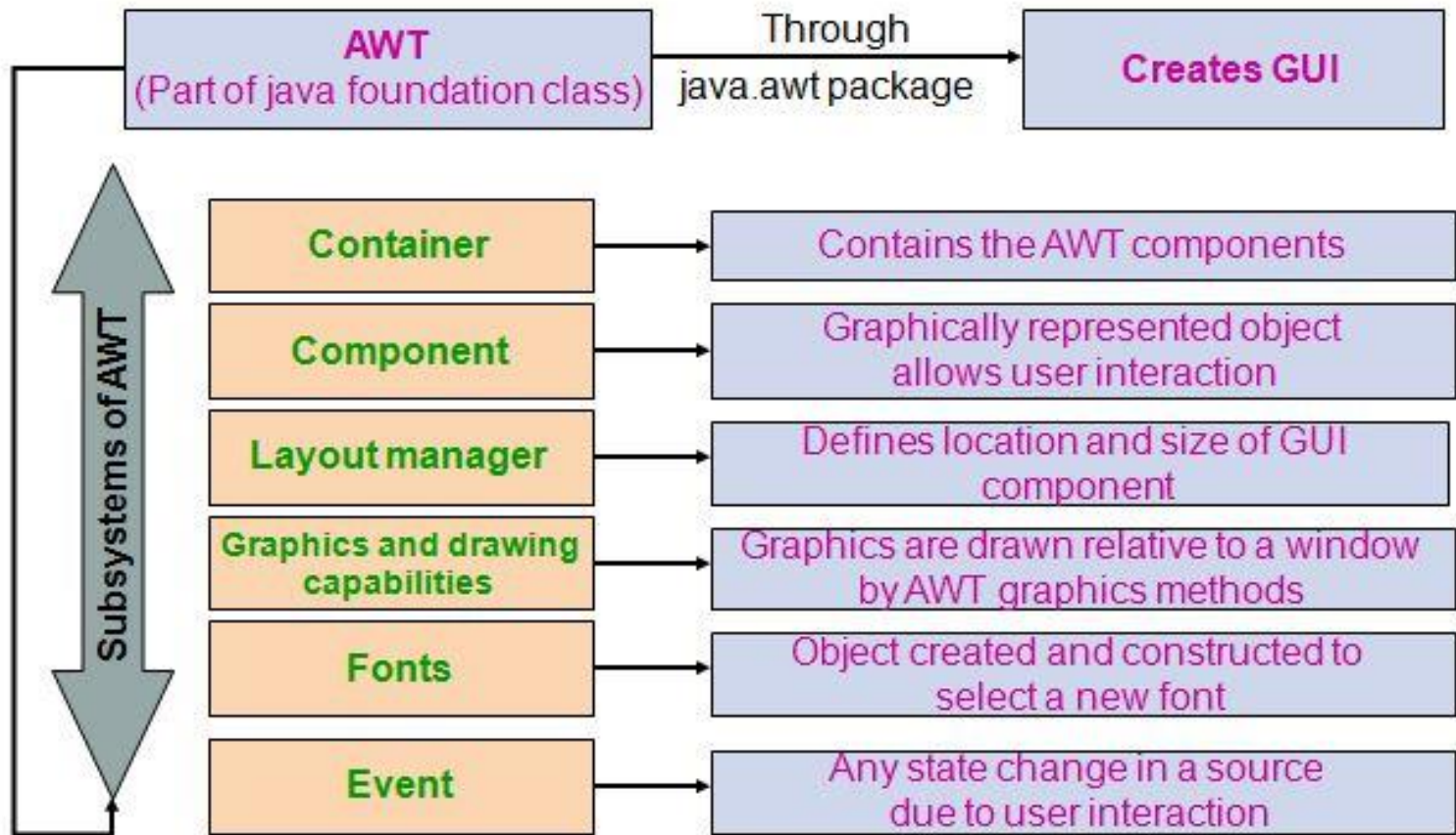
 - ❖ JFrame

 - ❖ JPanel

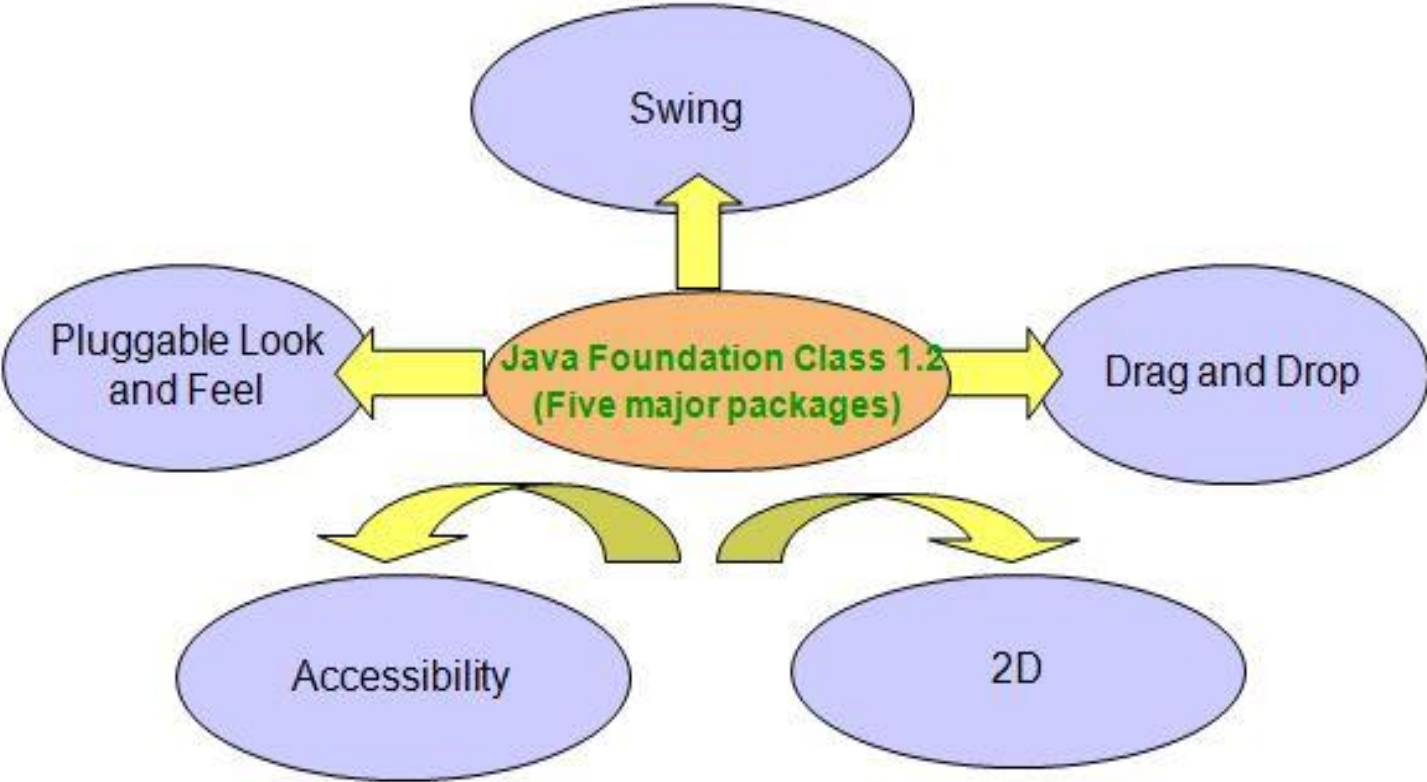
 - ❖ JScrollPane



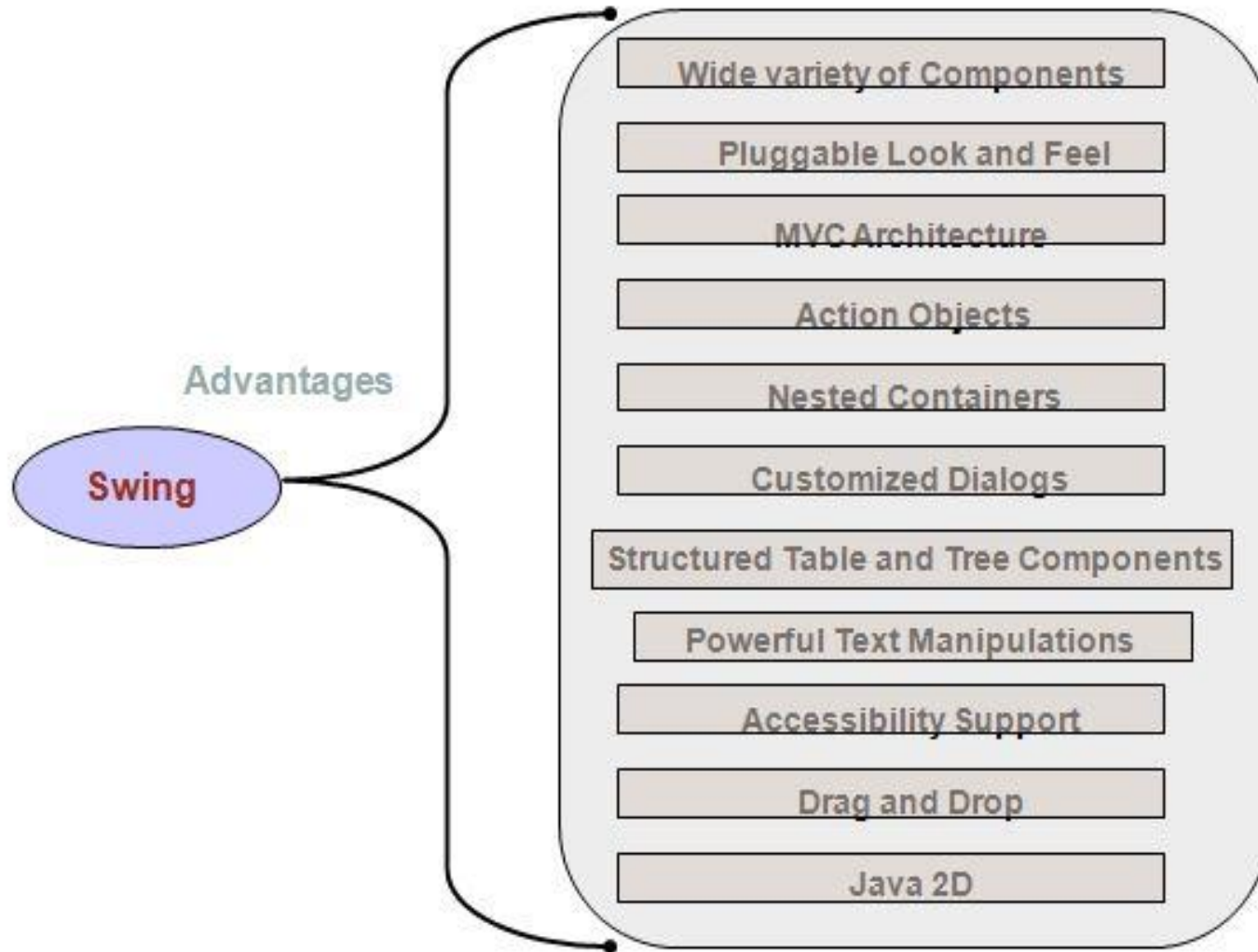
OVERVIEW OF AWT



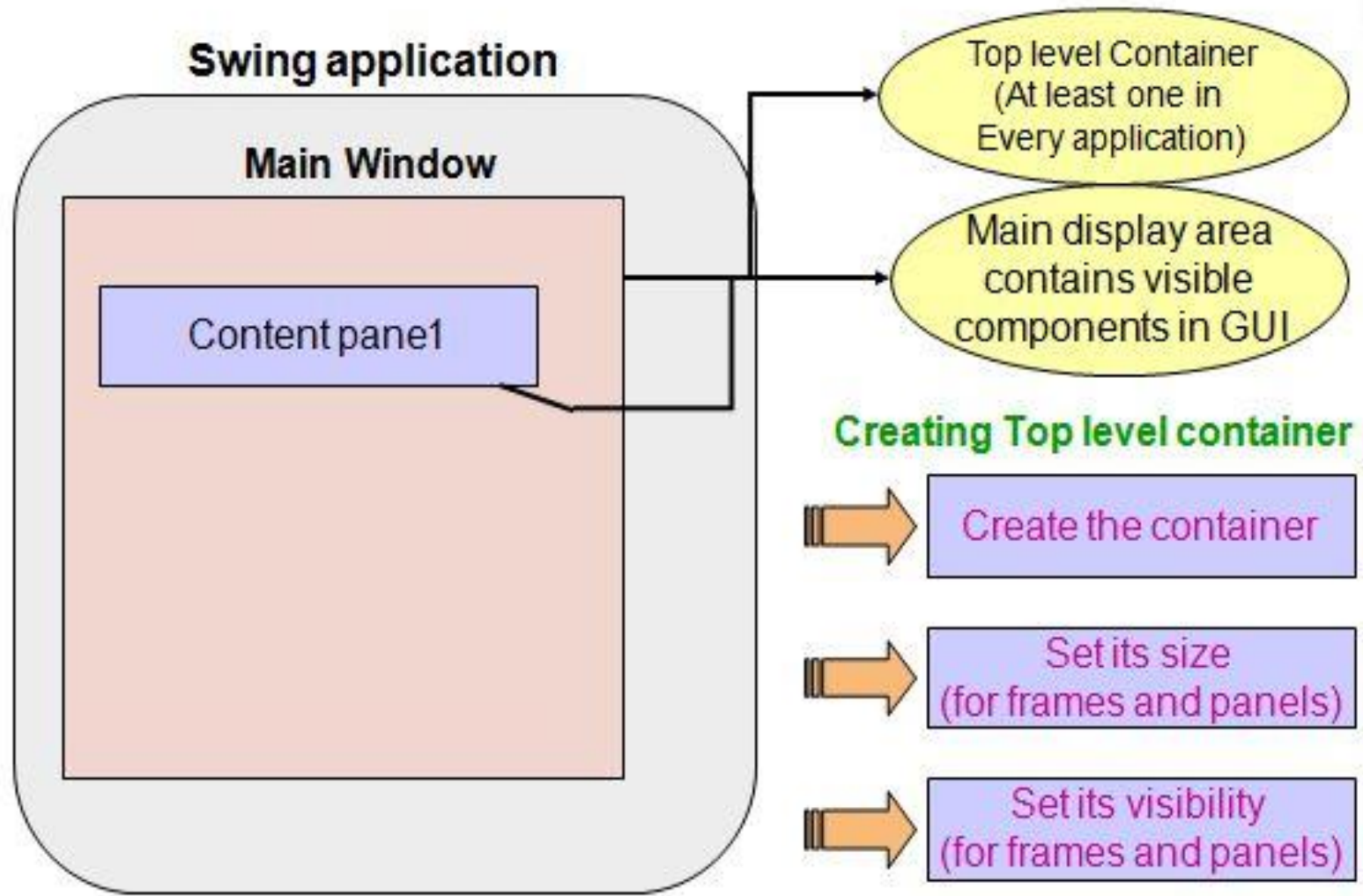
SWING



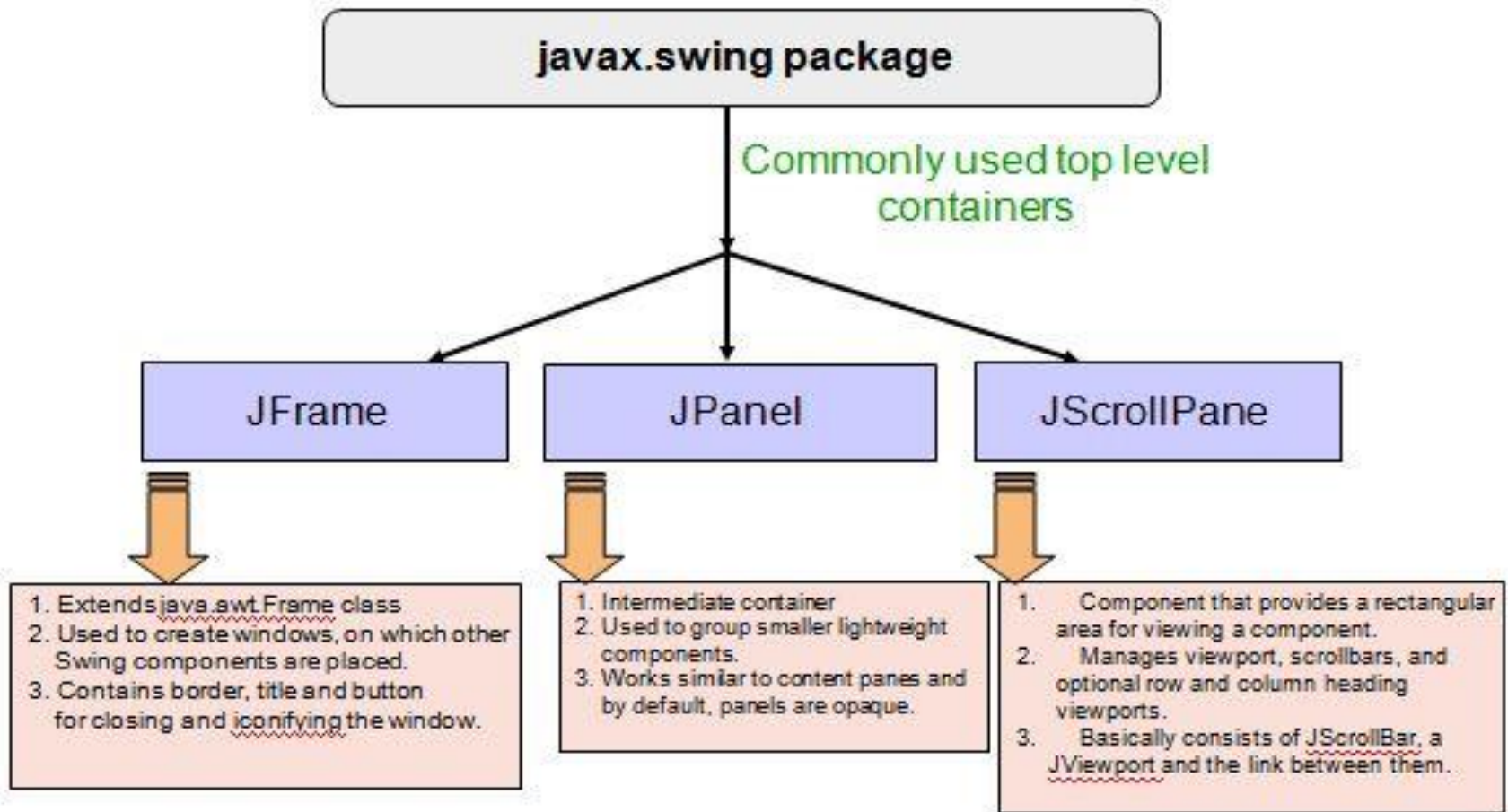
SWING (Contd.)



SWING CONTAINER COMPONENTS



SWING CONTAINER COMPONENTS (Contd.)

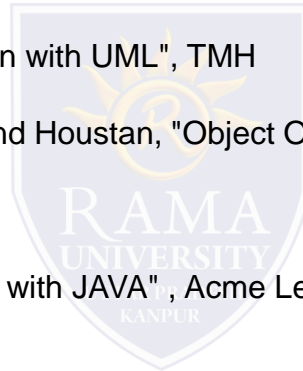


SWING CONTAINER COMPONENTS (Contd.)

Methods of JScrollPane class
void setViewportView(Component comp)
void setVerticalScrollBarPolicy(int const)
void <u>setHorizontalScrollBarPolicy(int const)</u>
void setDefaultCloseOperation(int <i>constant</i>)
void setTitle(String name)
String getTitle()
void setIconImage(Image img)

REFERENCES

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2. Grady Booch, James Rumbaugh, Ivar Jacobson, "The Unified Modeling Language User Guide", Pearson Education
3. Naughton, Schildt, "The Complete Reference JAVA2", TMH
4. Mark Priestley "Practical Object-Oriented Design with UML", TMH
5. Booch, Maksimchuk, Engle, Young, Conallen and Houston, "Object Oriented Analysis and Design with Applications",
Pearson Education
6. Pandey, Tiwari, " Object Oriented Programming with JAVA" , Acme Learning
7. <https://www.javatpoint.com/java-tutorial>
8. <https://www.tutorialspoint.com/java/index.htm>
9. https://www.tutorialspoint.com/object_oriented_analysis_design/index.htm
10. <https://www.slideshare.net/niitstudentcare/>



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q1. Which of the following statement(s) is/are correct?

- a) AWT components are platform-independent.
- b) AWT follows the MVC (Model View Controller).
- c) Swing components are platform-dependent.
- d) Swing follows MVC (Model View Controller).



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q2. The class at the top of the AWT hierarchy is

- a) Component
- b) Window
- c) Container
- d) Frame



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q3. In Java AWT, TextArea and TextField are the subclass of

- a) List
- b) Label
- c) TextComponent
- d) TextBox



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q4. When we invoke repaint() for a java.awt.Component object, the AWT invokes which of the following method ?

- a) draw()
- b) show()
- c) update()
- d) paint()



MULTIPLE CHOICE QUESTION

Multiple Choice Question:

Q5. What invokes immediately after the start() method in an applet?

- a) stop()
- b) init()
- c) paint()
- d) destroy()



Summary

In this PPT, you learned that:

- A Graphical User Interface is used to accept input in a user-friendly manner.
- Java Foundation Classes extends Abstract Window Toolkit(AWT) and contains improved user interface called the Swing Components.
- A container object is a component that can contain other Swing components. A container is responsible for laying the components that it contains. Commonly used containers are JFrame, JPanel and JScrollPane.

