



# RAMA UNIVERSITY

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## FACULTY OF ENGINEERING & TECHNOLOGY

### BCS-503: Object Oriented Techniques

#### Lecture-38

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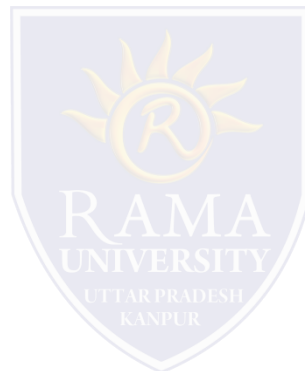
# OBJECTIVES

In this PPT, you will learn to:

❖ **Dialog Boxes**

❖ **Design Jmenus**

❖ **JTable**

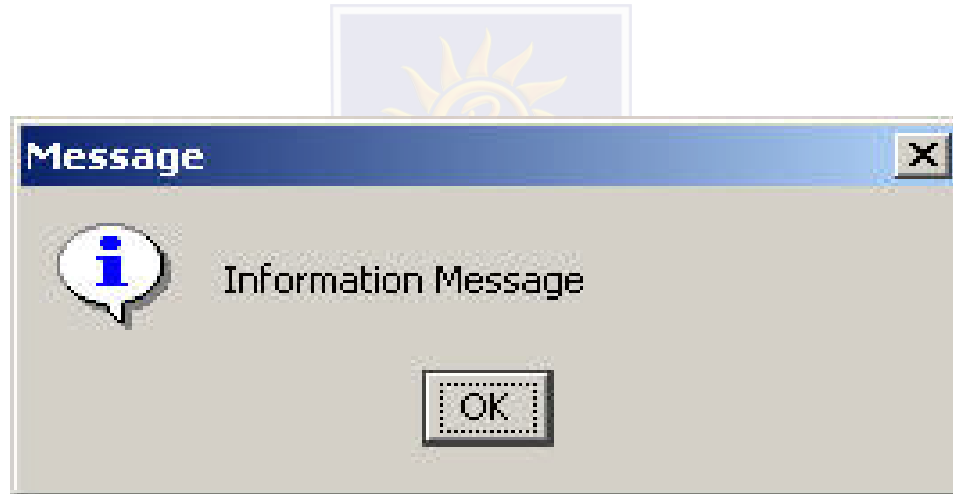


# DIALOGBOX

- It is a container which acts as a child for the parent container.
- The features supported by JOptionPane are
  - Laying out standard dialogs
  - Specifying the dialog's title and text
  - Providing icons and customizing the button text
- JOptionPane can be used to display various icons like icons for warning messages, for questions, errors and for information.



### Message Dialog Box



### Error Dialog Box

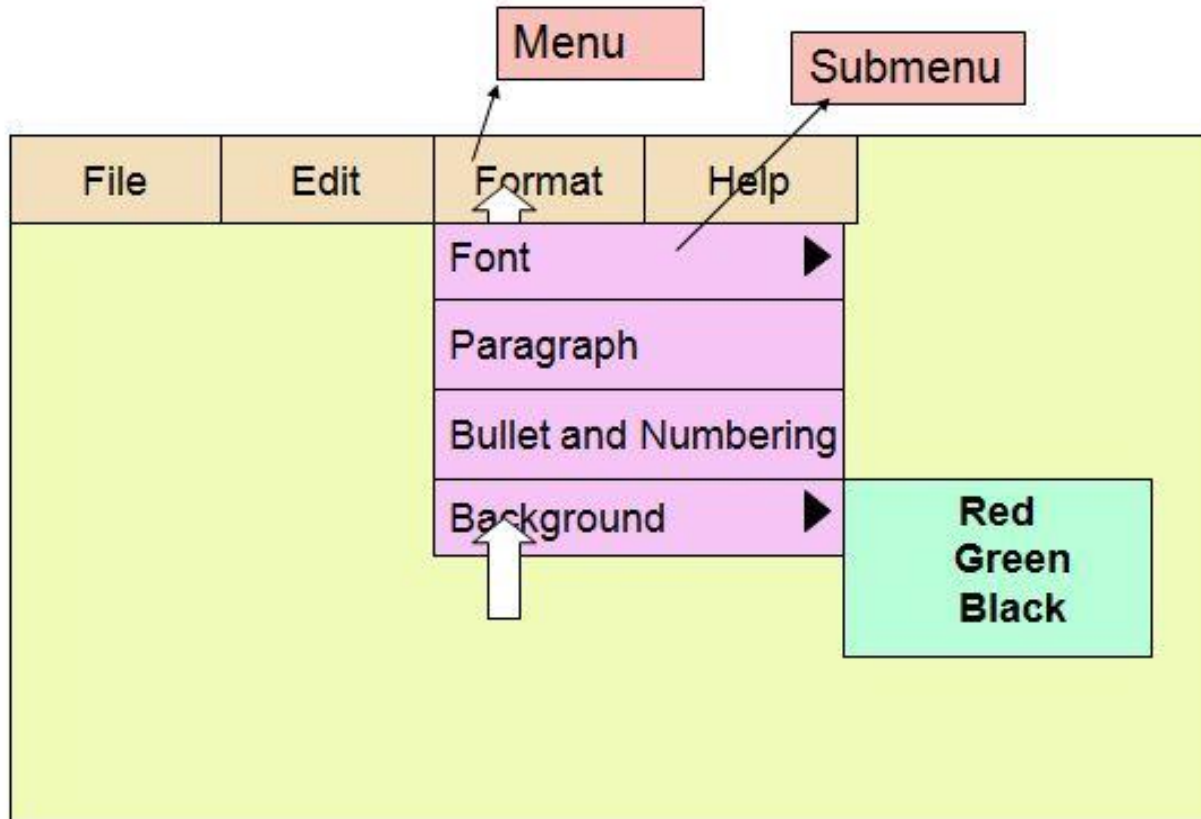


### Question Dialog Box



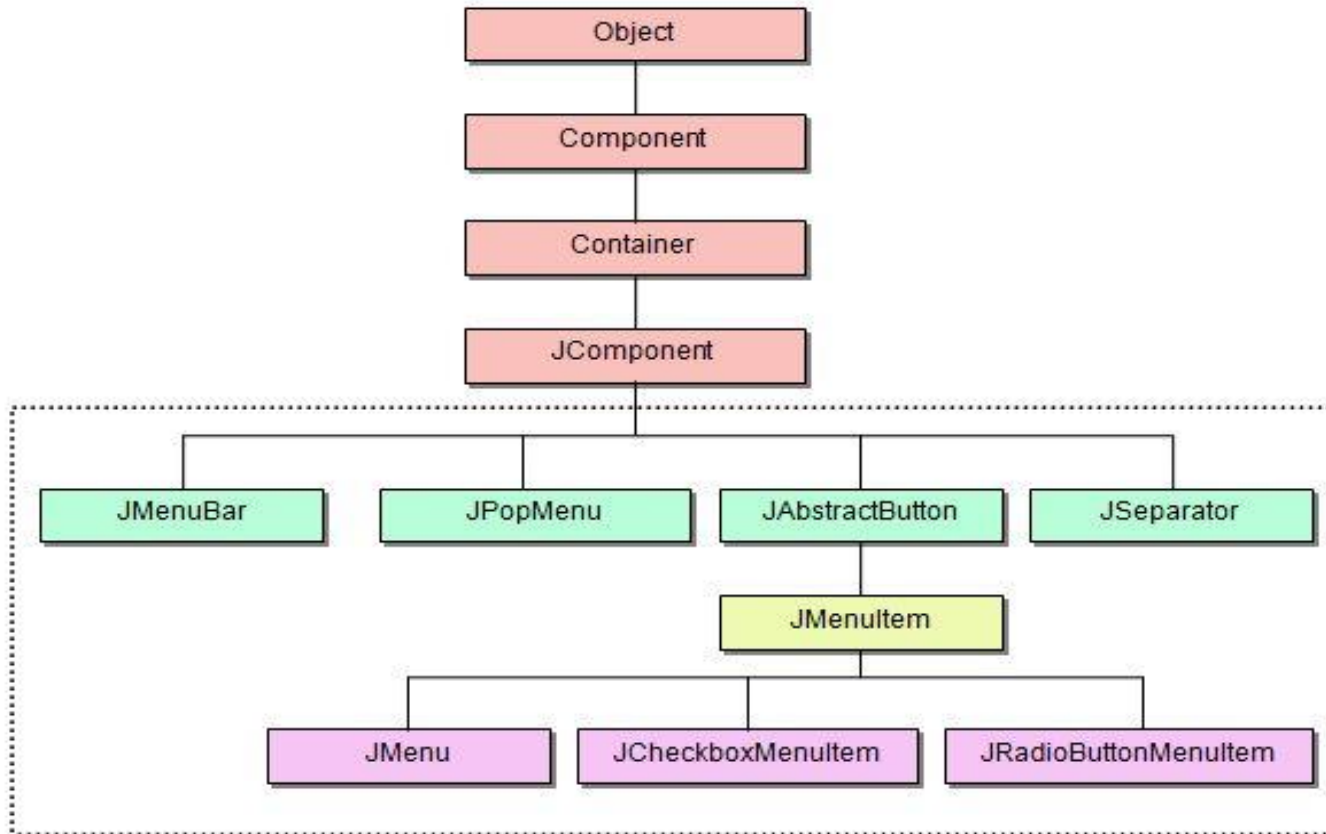
# MENUS

Display a list of items that indicate various operations that the user can perform.



# MENUS (Contd.)

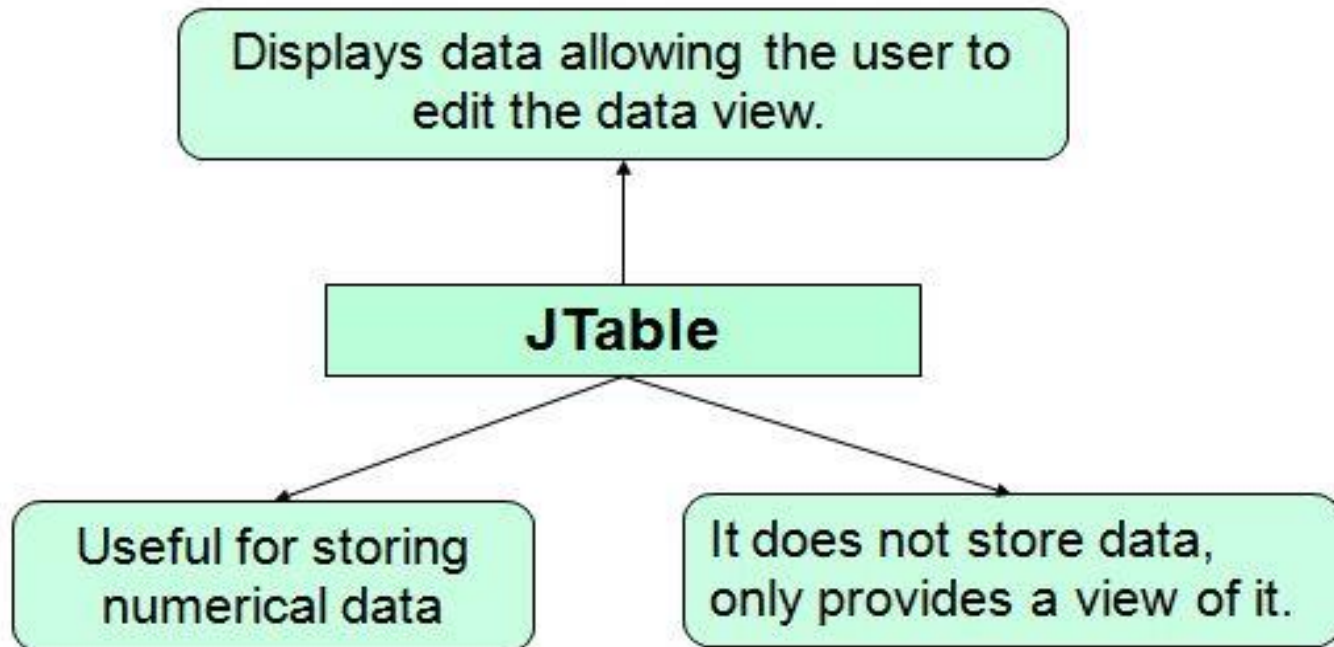
- Class hierarchy for the menu classes comprising the javax.swing package.





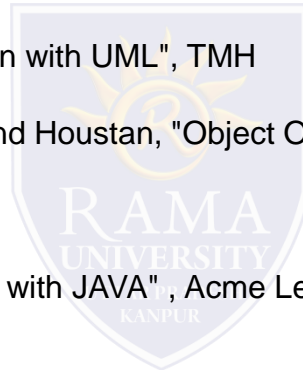
# JTABLE

- Volumes of data are better maintained in a tabular format than as a list.
- JTable class in Swing enables us to create tables.



# REFERENCES

1. James Rumbaugh et al, "Object Oriented Modeling and Design", PHI
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](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 classes can be used to represent a checkbox with a textual label that can appear in a menu?**

- a) MenuBar
- b) MenuItem
- c) CheckboxMenuItem
- d) Menu



# MULTIPLE CHOICE QUESTION

## Multiple Choice Question:

**Q2. Which of the following class is used to create a pop-up list of items from which the user may choose?**

- a) JList
- b) JComboBox
- c) JLabel
- d) JCheckBox



# MULTIPLE CHOICE QUESTION

## Multiple Choice Question:

Q3. How many frames will be displayed according to the following program?

```
import javax.swing.*;  
public class Test{  
    public static void main(String[] args){  
        JFrame f1 = new JFrame("My Frame");  
        JFrame f2 = f1;  
        JFrame f3 = f2;  
        f1.setVisible(true);  
        f2.setVisible(true);  
        f3.setVisible(true);  
    }  
}
```



- a) 0
- b) 1
- c) 2
- d) 3

# MULTIPLE CHOICE QUESTION

## Multiple Choice Question:

**Q4. Which of the following methods can be used to change the size of a java.awt.Component object?**

**(A) dimension()**

**(B) setSize()**

**(C) area()**

**(D) size()**

**(E) resize()**

a) (A), (B), (C) & (E)

b) (D) & (E)

c) (A), (B) & (E)

d) (B) & (E)

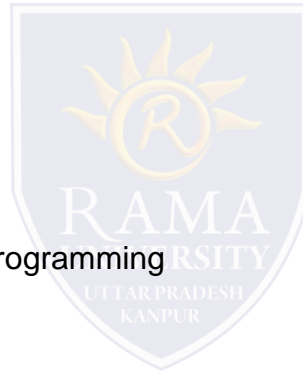


# MULTIPLE CHOICE QUESTION

## Multiple Choice Question:

**Q5. Which of the statements are correct about Swing programming?**

- a) AWT is a heavyweight programming.
- b) Swing is heavyweight programming.
- c) Swing is lightweight programming.
- d) Both AWT and Swing are lightweight programming



# Summary

## In this PPT, you learned that:

- Dialog box is a modal window.
- JOptionPane class is used to display the Dialog box.
- A Swing menu consists of a JMenuBar, JMenuItem and JMenu.
- AbstractButton is the superclass of a JMenu class.
- An instance of JMenuBar is created to build a menu.
- JTable extends the class JComponent and represents tables.
- JTable does not contain or store data, it only provides a view of it.

