

Java Swing

GUI and CUI

GUI: Graphical user interface, a system of interactive visual components for computer software.

CUI: Command line User Interface.

GUI elements

- **Windows** Rectangular section of the computer's display that shows the program currently being used
- **Button** A graphical representation of a button that performs an action in a program when pressed
- **Dialog box** A type of window that displays additional information, and asks a user for input.
- **Icon** Small graphical representation of a program, feature, or file.
- **Menu** List of commands or choices offered to the user through the menu bar.

Java Swing

Q: What is Java Swing?

A: Java Swing: a GUI toolkit for Java.

It provides a rich set of libraries to create GUIs. It is one part of the Java Foundation Classes (JFC). Swing includes graphical user interface (GUI) widgets such as text boxes, buttons, split panes, and tables.

Q: What is AWT?

A: AWT: Abstract Windowing Toolkit, which enables programmers to develop Java applications with GUI components, such as windows, and buttons.

Differences between Swing and AWT

- AWT is heavy weight components (because it is generated by the system's host operating system), but Swing is light weight components.
- AWT is OS dependent because it uses native components, but Swing components are OS independent

GUI application

A GUI application consists of:

Container (JFrame)

Components (e.g. JButton, JTextField, JCheckBox)

Event

Q: What Is An Event In Swing?

A: Changing the state of an object is called an event.

