Chapter 10 CRT

1. **1. A GUI (Graphical User Interface) is a visual interface that allows users to interact with software through graphical elements like buttons, icons, and menus, rather than text commands.**

2. **In an event-driven application, code is executed in response to events like user actions (e.g., clicks, keystrokes) or system triggers (e.g., timers, messages). The application waits for events in a loop and calls event handlers—specific functions—when an event occurs.**

3. **Yes, components (e.g., buttons, labels) can be placed directly into a frame or container, which manages their layout and display on the screen.**

4. **Yes, a label can respond to events if event listeners are attached to it. They can be made to be interactive by adding event listeners (e.g. for clicks or mouse movements) depending on the GUI framework.**

5. **I think that a GUI needs to run on an event-dispatching thread to handle user interactions and updates as efficiently as possible. This thread manages events like clicks or keystrokes, ensuring that the GUI is responsive. Running it on a dedicated thread prevents the interface from freezing during long-running tasks.**

6. **A label displays static text or images and is used for displaying information. A button, on the other hand, is interactive and can trigger actions or events when clicked or pressed.**

8. **AbsoluteLayout, FlowLayout, BorderLayout**

13. **It must be parsed into a double (Double.parseDouble(textfieldname.getText())**

14. **3.0+5.0 = 8.0**

15. **A combo box should be used. A combo box is very straightforward as it allows you to select a name from a selection(array) while a text field will only allow you to type a name in rather than select one.**