

## Chapter 9 GUI Programming Using Tkinter

```
1      Turtle can be used for drawing graphics and Tkinter can be used developed
      comprehensive GUI projects.
2
      Use Tk() to create an object for window.
3
      The statement creates an event loop for processing events.
4
      The parent container such as a window or frame.
5
      To specify a callback function for processing the event on the
      widget.
6
      Label(parent, text = "Welcome", fg = "white", bg = "red")
7
      Button(parent, text = "OK", fg = "white", bg = "red",
      command = processOK)
8
      Checkbutton(parent, text = "apple", fg = "white", bg =
      "red", variable = v1, command = processApple)
9
      Radiobutton(parent, text = "senior", fg = "white", bg =
      "red", variable = v1, command = processSenior)
10
      Entry(parent, textvariable = v1, fg = "white", bg = "red")
11
      Message(parent, text = "programming is fun", fg = "white",
      bg = "red")
12
      import tkinter

      print(LEFT)
```

```
13     canvas.create_line(34, 50, 50, 90)

14     canvas.create_rectangle(70 - 50, 70 - 50, 70 + 50, 70 + 50,
fill = "red")

15     canvas.create_oval(70 - 100, 70 - 50, 70 + 100, 70 + 50,
fill = "red")

16     canvas.create_arc(10, 10, 80, 80, start = 30, extent = 45)

17

    canvas.create_polygon(10, 10, 15, 30, 140, 10, 10, 100)
```

18

The width argument can be used to specify the pen size in pixels for drawing the shapes.

19

The arrow argument can be used with create\_line to draw an arrowed line. The arrow can appear at the start, end, or both ends of the line with argument value "first", "end", or "both".

20

The activefill argument makes the shape change color when you move the mouse over it.

21

Should be

```
    button.pack(side = LEFT)
```

22

Grid geometry manager

23

Place manager is platform-dependent.

24

```
import tkinter
```

```

        print(X)

25     Only the GIF format is supported.

26     Should be

image = PhotoImage(file = "image/us.gif")

27

image = PhotoImage(file = "c:\\pybook\\image\\canada.gif")

28

# Create a menu bar
menubar = Menu(window)
window.config(menu = menubar) # Display the menu bar

29

menu.post(event.x_root, event.y_root)

30

canvas.bind("<Button-1>", p)

31
What is event for moving the mouse while pressing the right-mouse
button?

<Bi-Motion>

32
What is event for clicking the left-mouse button twice?

<Double-Button-1>

33
What is event for clicking the middle-mouse button three times?

<Tripple-Button-2>

34
What argument is automatically passed to an event-handling
function?

event

```

35

How do you get the current mouse location from the event object?

`event.x` and `event.y`

36

How do you get the key character from the event object?

`event.char`

37

`canvas.sleep(milliseconds)`

38

`canvas.update()`

39

`Text`, `Canvas`, `Listbox`

40

Here is an example to associate a `Text` with a scrollbar.

```
text = Text(frame1, width = 40, height = 10, wrap = WORD,  
            yscrollcommand = scrollbar.set)  
text.pack()  
scrollbar.config(command = text.yview)
```

41

```
tkinter.messagebox.showinfo("showinfo", "Welcome to Python")
```

42

```
age = tkinter.simpledialog.askinteger(  
    "askinteger", "Enter your ages")  
print(age)  
  
weight = tkinter.simpledialog.askfloat(  
    "askfloat", "Enter your weight")  
print(weight)  
  
name = tkinter.simpledialog.askstring(  
    "askstring", "Enter your name")  
print(name)
```