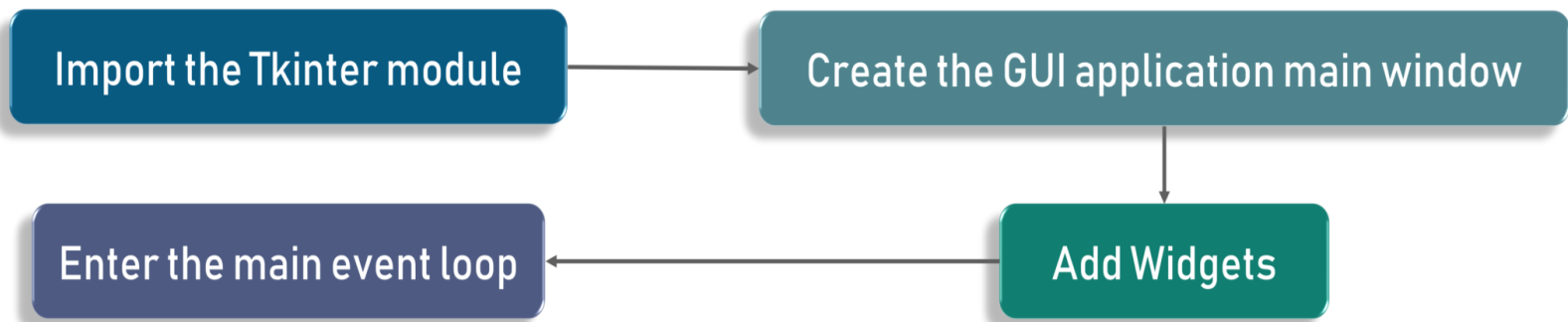


# What is a GUI..?

- **Graphical User Interface (GUI)** is a desktop application which **helps you to interact with the computers**. They are used to perform different tasks in the desktops, laptops and other electronic devices.
- A GUI **displays objects that convey information, and represent actions that can be taken by the user**. The objects change color, size, or visibility when the user interacts with them.
- GUI **objects include icons, cursors, and buttons**. These graphical elements are sometimes enhanced with sounds, or visual effects like transparency and drop shadows.
- A GUI is **considered to be more user-friendly than a text-based command-line interface**.

# Python GUI Programming (Tkinter)

- Tkinter is **the standard GUI library** for Python. Python when combined with Tkinter provides a **fast and easy way to create GUI** applications.
- Importing tkinter is same as importing any other module in the Python code.
- **To create a tkinter app:**



# Python GUI Programming (Tkinter)

- **To create a tkinter app:**
  - Import the module – tkinter
  - Create the main window (container)
  - Add **any number of widgets** to the main window
  - Apply **the event Trigger** on the widgets.
  - Lastly **enter the main event loop**.

# Python GUI Programming (Tkinter)

- Two main methods while creating an application with GUI are:
  - 1. Tk(screenName=None, baseName=None, class Name='Tk', useTk=1):**
    - To **create a main window**, tkinter offers a method 'Tk(screenName=None, baseName=None, className='Tk', useTk=1)'. To change the name of the window, you can change the className to the desired one. The basic code used to create the main window of the application is:  
**window=tkinter.Tk()** #where window is the name of the main window object

# Python GUI Programming (Tkinter)

## 2. `mainloop()`:

There is a method known by the name `mainloop()` is used when your application is ready to run.

`mainloop()` is **an infinite loop used to run the application**, wait for an event to occur and process the event as long as the window is not closed.