# About the project :

Our team has made GUI(Graphical user interface) which tells you the current weather details. It basically asks you to input your location and send the data to an API(Application programming interface), the API then gets the weather of that location from its database and send it back to us. We use the GUI to display the weather for the location.

**Now many of you might be thinking what an API and GUI is?**

**Let us have the opportunity to tell you about API’s.**

When you use an application on your mobile phone, the application connects to the Internet and sends data to a server. The server then retrieves that data, interprets it, performs the necessary actions and sends it back to your phone. The application then interprets that data and presents you with the information you wanted in a readable way. This is what an API is - all of this happens via API.

An application programming interface, or API, enables companies to open up their applications’ data and functionality to external third-party developers, business partners, and internal departments within their companies. This allows services and products to communicate with each other and leverage each other’s data and functionality through a documented interface.

**Now lets have look at what GUI is?**

A **GUI** (graphical user interface) is a system of interactive visual components for computer [software](https://www.computerhope.com/jargon/s/software.htm). 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. In our project you will see the use of components of GUI like labels, text-boxes, pictures, frames, etc.

# Libraries used in our Project:

tkinter:**Tkinter is the standard GUI library for Python**. Python when combined with Tkinter provides a fast and easy way to create GUI applications.

Tkinter.ttk:The **tkinter**.**ttk** module provides access to the Tk themed widget set

Requests:The requests module allows you to send HTTP requests using Python.The HTTP request returns a [Response Object](https://www.w3schools.com/python/ref_requests_response.asp) with all the response data (content, encoding, status, etc).

Time:As the name suggests Python time module allows to work with time in Python. It allows functionality like getting the current time, pausing the Program from executing, etc.

PIL:Python Imaging Library (expansion of PIL) is the image processing package for Python language. It incorporates lightweight image processing tools that aids in editing, creating and saving images.

Urllib:Urllib package is the **URL handling module for python**. It is used to fetch URLs (Uniform Resource Locators). It uses the urlopen function and is able to fetch URLs using a variety of different protocols.

From IO-bytesIO:Just like what we do with variables, data can be kept as bytes in an in-memory buffer when we use the io module’s Byte IO operations.

Now let us demonstrate our program and then we will be explaining the working .