MORADABAD INSTITUTE OF TECHNOLOGY



Weather Forecasting Application

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Topics To Be Describe:

- Introduction
- Technology Stack
- Modules Used
- Weather API's
- JSON Format Data
- Future Updates about the project
- Q/A



Introduction

Weather forecasting is the application of science and technology to predict the conditions of the atmosphere for a given location and time.

The project's **aim** is to create an application which updates real-time weather and informs about the current status of weather,like **temperature** and **humidity**,for a particular city.

Python programming language is used to achieve this aim. The GUI is created from the tkinter module and rest API are called using requests module.

OpenWeatherMap API is used in this project to fetch the API data.API consists of data which is stored in JSON format.

Technology Stack







Application Programming Interface



Modules Used

```
# importing the libraries
from tkinter import *
from tkinter import messagebox
import requests
import json
import datetime
from PIL import ImageTk, Image
```



Weather API's

1. OpenWeatherMap API

2. Weatherbit API

3. AccuWeather API

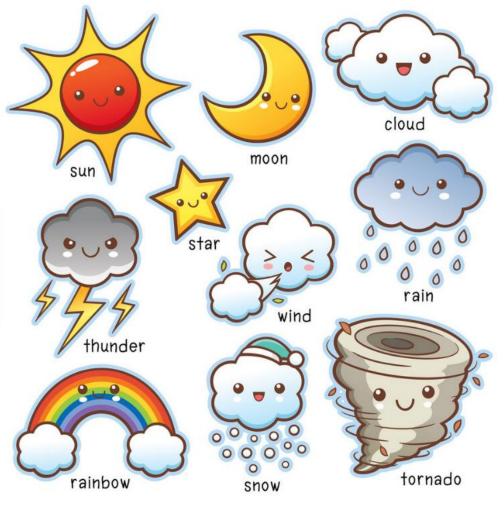
4. Dark Sky API

5. Weather 2020 API

6. ClimaCell API

7. Visual Crossing API





JSON Format Data

```
{ "coord": {"lon": -122.08,"lat": 37.39},
 "weather": [ {"id": 800, "main": "Clear", "description": "clear sky", "icon": "01d"}],
 "base": "stations",
 "main": {"temp": 282.55,"feels_like": 281.86,"temp_min": 280.37,"temp_max": 284.26,
 "pressure:1023,
 "humidity": 100},
 "visibility": 16093,
"wind": {"speed": 1.5,"deg": 350} en Weather
 "clouds": {"all": 1},
 "dt": 1560350645,
 "sys": {"type": 1,"id": 5122,"message": 0.0139,"country": "US","sunrise":1560343627,
 "sunset":1560396563},
 "timezone": -25200,
 "id": 420006353,
 "name": "Mountain View",
 "cod": 200 }
```

Future Update Of This Project

Every project has it's future like feature addition, inter-connection with other softwares or re-development using advance GUI's.

This mini project is a part of our major project and obviously we are not going reveal information about it. So have a great day and wait till next year.

THANK HOUS YOU