

Project Title: Python Weather Forecast Simulator - PyWeather Sim

Project Description:

"PyWeather Sim" is a console-based simulation game in which students can learn Python by programming a weather forecast system. This project involves using basic data structures, control structures, and random number generation to simulate daily weather patterns. The game is designed to help students understand programming concepts while exploring meteorological principles.

Game Rules:

1. The simulator starts by asking the user to enter the number of days they wish to simulate.
2. For each day, the weather conditions (like temperature, humidity, and weather type such as sunny, rainy, cloudy) are randomly generated.
3. The system provides a summary forecast at the beginning and detailed daily forecasts as the simulation progresses.
4. Users can request specific information, like the hottest day, the coldest day, or average conditions over the simulation period.

Key Features:

- A function to generate random weather conditions based on predefined probabilities (e.g., 30% chance of rain, 20% chance of being cloudy).
- Daily forecasts that include temperature, humidity, and general weather conditions.
- Statistical summary functions that calculate and display averages, maximums, and minimums for temperature and humidity.
- An interactive menu that allows users to view forecasts, enter simulation parameters, and access statistical summaries.