Seazone code challenge report - Weather forecast with Python - 2022

The weather forecast is extremely important, with it you can avoid catastrophes, carry out scientific studies, or even consult the weather and book a house to enjoy the vacation. As a result, the purpose of this document is to explain the functioning, usefulness and scalability of the PyForecast project, made for the Seazone code challenge.

What is PyForecast?

PyForecast is a software that, upon user's choice, delivers the weather forecast in table format, which can be done for a period of time, or for a target date, and can also be used to find a favorable climate to the user's taste.

What can i do with the acquired data?

Prevention against natural catastrophes - In places where phenomena of greater magnitude occur, such as hurricanes, floods, meteorological services allow the evacuation of people and anticipate possible setbacks.

Planning in agriculture - In agriculture, the weather forecast is used to plan the planting and harvesting of crops and also to prevent the arrival of frost, hail and drought.

What could I improve on this project?

I would need to have a more powerful database, improve the user experience by creating a graphical interface (Probably using PyQt for Desktop and Kivy or React Native for mobile) and create an alert system for high magnitude weather events. These features would be extremely important for places such as Jurerê beach, which, being a coastal area, is subject to climatic events of great magnitude.

What is my feedback for this challenge?

What impacted me the most in this project was the fact that I was able to put my skills in Python into practice, in contact with real data and with the aim of solving real problems. Also in this project, I noticed a significant improvement in my code and logic skills.