**PHASE 2 INNOVATION:**

According to the research and analysis taken by us, we had come to a conclusion with a simple but effective innovation idea to solve the problem mentioned in the phase 1.

These are the technologies and components are involved in our innovation.

**MICROCONTROLLERS:**

* We can use **Arduino uno** microcontroller as well as **ESP32 microcontroller** for better convenient in data transmission.
* Because our solution is based on these both controllers use cases.

**SENSORS:**

* We prefer Digital Temperature and Humidity sensor (i.e.) **DHT22** sensor since it is very fast and gives data for every 2 seconds.

**CONNECTIVITY:**

* Even though we have different modes of connectivity, we prefer **WIFI** for our data transmission for fast and long coverage distance data transmission to public people.
* We chose **WIFI** because it is already integrated in **ESP32** microcontroller and it has high data rate for transmission.

**PROTOCOL:**

* After research, the protocol which we chose for our solution for message queuing and reception is **HTTP/HTTPS**.
* Because it is simple and perfectly suitable for our innovative solution.

**CLOUD:**

* Although many cloud services are available like Google, Amazon and others, it is available in paid version.
* So, we chose **BEECEPTOR** cloud which supports **HTTP/HTTPS** protocol for solution.

**PUBLIC PLATFORM:**

For our problem we must create a public platform to acknowledge people about the weather condition so that they can able to plan their outdoor activities.

So, we were trying to give a solution and ended up with an idea of creating an API using HTTP so that the people can easily access it and they will be acknowledged about the weather condition and plan their occasions accordingly.

This page will be available with these following features:

* This page will be an open source to access by the people who are going to plan their events in parks with a URL.
* It will be connected with the cloud server so that it can receive the atmospheric information in a scheduled reception basis.
* This timed basis is actually designed for those who went to the park regularly.
* It also has the features of requesting data for those people who were planning their events occasionally.
* This site is loaded with a specific data type so it displays the weather condition with the received data from the Microcontroller.