# PREREQUISITES

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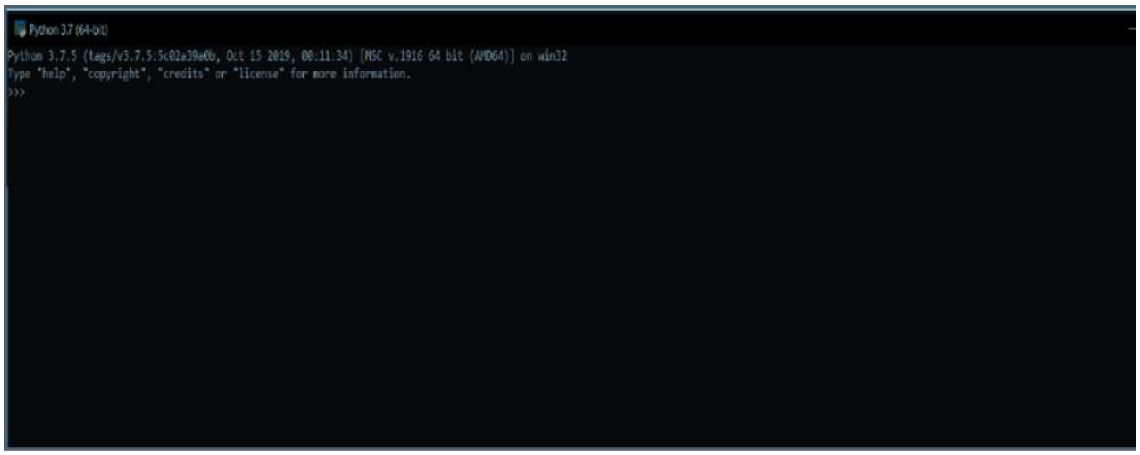
| TEAM ID | PNT2022TMID29114 |
| PROJECT NAME | SMART AGRICULTURE |

The main aim of this project is to help farmers automate their farms by providing them with a Web App through which they can monitor the parameters of the field like Temperature, soil moisture, humidity, etc., and control the equipment like water motor and other devices remotely via the internet without their actual presence in the field.

PYTHON and all the packages required are installed by all the team members. Software requirements are satisfied.




Install any python IDE to execute python scripts, in my case I used Spyder to execute the code.

## OpenWeather API

OpenWeatherMap is an online service that provides weather data. It provides current weather data, forecasts, and historical data to more than 2 million customers.

Website link: https://openweathermap.org/guide

## IoT Simulator

• In our project in the place of sensors we are going to use an IoT sensor simulator that gives random readings to the connected cloud.

The link to the simulator: https://watson-iot-sensor-simulator.mybluemix.net/

• We need to give the credentials of the created device in the IBM Watson IoT Platform to connect the cloud to the simulator.

### Node-Red

Node-RED is a flow-based development tool for visual programming developed originally by IBM for wiring together hardware devices, APIs, and online services as part of the Internet of Things. Node-RED provides a web browser-based flow editor, which can be used to create JavaScript functions