Testing

Project id : PNT2022TMID21494

Test case ID	Feature Type	Component	Test Scenario	Pre-Requisite	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N
TC_001	Functional	IBM cloud	Create the IBM Cloud services which are being used in this project.	IBM Cloud Login ID & Password	1.Go to IBM Cloud signup page 2.Enter e-mail id and other credentials 3.Enter a password	https://cloud.ibm.com/login	User should sign up IBM cloud and details should be verified	Working as expected	Pass	Results verified	No
TC_002	Functional	IBM Cloud	Configure the IBM Cloud services which are being used in completing this project.	IBM Cloud Login ID & Password	1.Go to Cloud login 2.Enter user ID & Password 3.Verify login by the popup display	https://cloud.ibm.com/login	User login to IBM Cloud and should be navigated to IBM Cloud dashboard page	Working as expected	Pass	Results verified	No
TC_003	Functional	IBM Watson IoT Platform	IBM Watson IoT platform acts as the mediator to connect the web application to IoT devices, so create the IBM Watson IoT platform.	IBM Watson IoT Platform Login ID & Password	1.Login to IBM Cloud 2.Click Catalog 3.Search IoT and click create 4.Go to resource list and search Internet of Things platform 5.Press Launch and click Sign in IBM Watson Platform	https://yq4nsy.internetofthings.ibmcloud.com/dashboard/	User should be navigated to IBM IoT Watson Platform	Working as expected	Pass	Results verified	No
TC_004	Functional	IBM Watson	In order to connect the IoT device to the IBM cloud, create a device in the IBM Watson IoT platform and get the device credentials.	IBM Watson IoT Platform Login ID & Password	1.Login to IBM Watson Platform 2. Click Add Device 3.Enter the details and click Finish. Create Device ID & Device type 4.Turn on Device Simulator and click simulation running. Enter the values of gas, temperature & humidity level 5.Click Send & Save. Verify the displayed result of the levels	Temperature, Humidity and Gas sensor values are generated randomly in simulation	Temperature, Humidity and Gas sensor values should be randomly generated	Working as expected	Pass	Results verified	No
TC_005	Functional	IBM Cloud(Node Red)	Configure the connection security and create API keys that are used in the Node-RED service for accessing the IBM IoT Platform.	Node Red Installation	1.Install node red and open node red in command prompt 2.Select IBM input in IoT	https://cloud.ibm.com/developer/appservice/create-app?starterKit=59c9d5bd-4d31-3611-897a-f94eea80dc9f&defaultLanguage=undefined	User should be able to see the Node Red page	Working as expected	Pass	Results verified	No
TC_006	Functional	Node Red	Create a Node-RED service.	Node Red Installation	1.Select IBM IoT input in Node. In IBM IoT Watson Platform, go to apps and click on generate API keys. 2.Copy & paste generated API key and token in the IBM IoT input. After entering all details, click the done button. 3.Add debug to the IBM IoT and rename as Msg.payload and click on done. Click gauge from the dashboard and fill the details & add functions to the gauge. Check the generated values from the debug message. 4.Edit function node, connect them, add another gauge and functions, name them as "Temperature", "Gas" &"Humidity" 5.Finally add alarm ON/OFF and Sprinkler ON/OFF buttons to the	Values of sensors and button for Alarm & Sprinkler ON/OFF is displayed	Values of sensors and button for Alarm & Sprinkler ON/OFF should be displayed	Working as expected	Pass	Results verified	No

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Functional	IBM Cloud(Node Red)	Configure the connection security and create API keys that are used in the Node-RED service for accessing the IBM IoT Platform.	Node Red Installation	1.Install node red and open node red in command prompt 2.Select IBM input in IoT	https://cloud.ibm.com/developer/appservice/create-app?starterKit=59c9d5bd-4d31-3611-897a-f94eea80dc9f&defaultLanguage=undefined	User should be able to see the Node Red page	Working as expected	Pass	Results verified	No
Functional	Node Red	Create a Node-RED service.	Node Red Installation	1.Select IBM IoT input in Node. In IBM IoT Watson Platform, go to apps and click on generate API keys. 2.Copy & paste generated API key and token in the IBM IoT input. After entering all details, click the done button. 3.Add debug to the IBM IoT and rename as Msg.payload and click on done. Click gauge from the dashboard and fill the details & add functions to the gauge. Check the generated values from the debug message. 4.Edit function node, connect them, add another gauge and functions, name them as "Temperature", "Gas" &"Humidity" 5.Finally add alarm ON/OFF and Sprinkler ON/OFF buttons to the IBM IoT and debug. Verify the output from NODE RED using Local host link	Values of sensors and button for Alarm & Sprinkler ON/OFF is displayed	Values of sensors and button for Alarm & Sprinkler ON/OFF should be displayed	Working as expected	Pass	Results verified	No
Functional	Python 3.7.0	Develop a python script to publish random sensor data such as temperature, humidity level and Gas level to the IBM IoT platform	Python 3.7.0(64 bit) installation	1.Download and install Python 3.7.0 2.Develop python code	https://www.python.org/downloads/release/python-370/	User should be able to develop a python code	Working as expected	Pass	Results verified	No
Functional	Python 3.7.0	After developing python code, commands are received just print the statements which represent the control of the devices.	Python 3.7.0(64 bit) installation	1.Downlinstall Python 3.7.0 2.After python code	Get the output from the code	User should be able to get the results from the developed code	Working as expected	Pass	Results verified	No
Functional	M Cloudant I	Publish Data to The IBM Cloud	IBM Cloud Login ID & Password	1.Run the python code 2.Verify the displayed output	Publishment of python code	User should be able to publish the co	Working as expected	Pass	Results verified	No
Web UI	Node Red & MIT Inventor	Create Web UI in Node -Red	MIT Inventor Login ID & password	1.Go to Node Red. Select http in & http response. Add functions and select another http in and http response. Connect them to IBM IoT output and function.Print the command statements such as Sprinkler ON/OFF, Alarm ON/OFF and sensor 2.Go to MIT app inventor and create frontend using buttons,horizontal arrangement,	Sensors values and command values can be seen in the mobile application	Sensors values and command values should be seen in the mobile application	Working as expected	Pass	Results verified	No