Assignment 13

Problem Statement: Create a small dashboard application to be deployed on cloud. Different publisher devices can publish their information and interested application can subscribe.

Objectives:

To facilitate the learners to -

1. Develop mini applications on IoT boards with proper design.

Outcomes:

The learner will be able to :–

1. Develop IoT application for distributed environment.

Theory

Raspberry Pi Connectivity with Cloud. The IoT platforms are suites of components that help to set up and manage the internet connected devices. A person can remotely collect data, monitor and manage all internet connected devices from a single system. There are a bunch of IoT platforms available online but building an IoT solution for a company is all depend on IoT platform host and support quality.

IOT Cloud Platforms

· Kaa IoT Platform

· SiteWhere: Open Platform for the Internet of Things

· ThingSpeak: An open IoT platform with MATLAB analytics

· DeviceHive: IoT Made Easy

· Zetta: API-First Internet of Things Platform

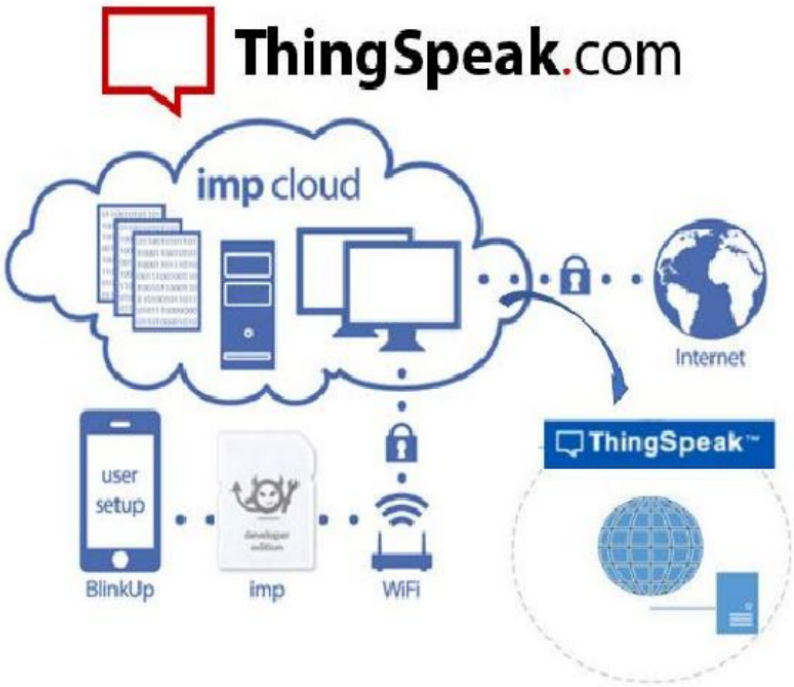
· DSA: Open Source Platform & “Toolkit” for Internet Of Things Devices

· Thingsboard.io Open-source IoT Platform

· Thinger.io: The Open Source Platform for Internet of things

· WSo2- Open source platform for Internet of Things and mobile projects

Ex.



ThingSpeak – Features

· Collect data in private channels

· Share data with public channels

· RESTful and MQTT APIs

· MATLAB analytics and visualizations

· Alerts

· Event scheduling

· App integrations

· Worldwide community

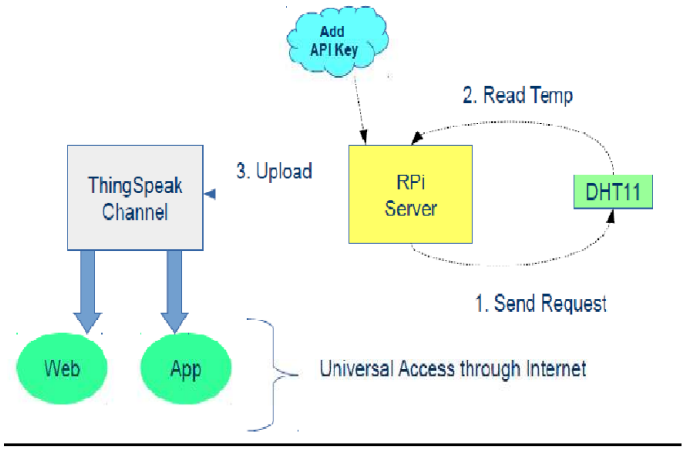


Figure: Example of Cloud application using ThingSpeak

Output: Attach Program

Conclusion: We learned to create a small dashboard application to be deployed on cloud.