

Aim: create a small dashboard application to be deployed on cloud. Different publishers devices can publish their info and interested application can subscribe

Theory:

### ① IoT Platform:-

- The IoT Platform are suites of components those help to setup 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 Platform available online but building an IoT solution for company is all depend on IoT platform host and support quality

### ② IoT Cloud Platforms:

- kaa IoT Platform
- Site where: open platform for IoT
- Thing speak: An open IoT platform with MATLAB analysis

Device Hubs :- IoT made easy

zetta :- API - first IoT platform

### ③ Kaa - Features:

- manage unlimited no. of connected devices
- Perform AI/ML service testing
- collect analyze sensor data



- perform real time device monitoring
- create cloud service for smart phone
- set up cross device interoperability

#### ④ Site where Feature :-

- HBase for non-relational data store.
- Run any no. of IOT app on single site
- Default data Base storage in Mongo DB
- Grafana to visualize site where data.
- connect device with MQTT, AMQP, STOMP & other Protocol
- Integrate third party integration framework such as Mule any point

#### ⑤ Thing Speak Feature

- collect data in Private channels
- share data with Public channel
- RESTful and MQTT APIs
- Event Scheduling
- APP integration
- worldwide community

#### ⑥ Develcative feature

- Directly integrate with Alexa
- visualization dashboard of your choice
- connect any device via REST API, web socket or MQTT
- It comes with Apache Spark and Spark Streaming support
- It allows running batch analytics and mlc learning on top of your device data

### ⑦ Zetta Feature

- Built around Node.js, REST, websocket and Flow  
base "reactive programming"
- Support wide range of back-end boards.
- Zetta allow you to assemble smartphone apps  
and cloud apps

### ⑧ Things Speak: APPs

## Analytics



### MATLAB Analysis

Explore and transform data



### MATLAB Visualizations

Visualize data in MATLAB plots



### Plugins

Display data in gauges, charts, or custom plugins

## Actions



### ThingTweet

Connect a device to Twitter™ and send alerts



### TweetControl

Listen to the Twitterverse and react in real time



### TimeControl

Automatically perform actions at predetermined times with Thingpeak apps



### React

React when scheduled data meets certain conditions



### TalkBack

Queue up commands for your device



### ThingHTTP

Simplify device communication with web services and APIs



Conclusion :

Thus we have designed small application using thing speak