Experiment NO-09

Name: Kajal Sunilpagare.
Rollno: 26 Div: B.
class: TE.

Aim : Create a small dashboard application to be deployed on cloud. Different publisher devices can publish their information and intrested application can Subscribe.

Theory

IOT platforms.

IOT platforms are suites of component those help to setup and manages the internet connected device. A person can remotely collect data, monitor and manage all internet connected devices from a single system.

IOT cloud platforms:

1. Kaa IOT platform 2. sitewhere: open platform for the IOT 3. ThingSpeak: An IOT platform with MATLAB analytics 4. Devicelive : IOT made Easy 5. zetta: API-First IOT platform.

Kaa - Features:

1. manage an unlimited number of connected device.
2. Set up across device operability.
3. perform AIO services testing.
4. perform realtime device monitoring.
5. perform remote device provisioning & configuration.
6. collect and analyze Sesor data.
7. Analyze User behaviour deliver trages, notifications.
8. Create cloud services for smart producers

Sitewhere - Features.

1. Run any number of IOT application on a single Site where instance.
2. Spring delivers the core configuration frame works.
3. connect devices with MQTT, AMQP, stomp and other protocols.
4. Add Devices through self-registeration, REST services, or in batches.
5. Integrates with third-party integrations frameworks such as Mule. Anypoint.
6. Default DB Storage is mongoDB.
7. Eclipse Californium - for CoAP messaging.
8. Influx DB for event data storage.
9. Grafana to visualize sitewhere data.

MEERA
PAGE NO.:
DATE: / /

10. HBase for non-relational data store.

Thingspeak - Features.

1. collect data in private channels.
2. Sheare data with public channels.
3. RESTful and MQTT APIS.
4. MATLAB Analysis and visualizations.
5. Alerts.
6. Event scheduling
7. App Integrations.
8. worldwide community.

Devicehive - Features.

1. Directly integrates with Alexa.
2. visualization dashboard of your choice.
3. Customize Devices Hive behaviour by runing your Customjavascript code.
4. It support big data solutions such as Flastic search, Apachespark, Cassandra, and Kafka for real time and batch processing.
5. Connect any device via REST API, web-Sockets or MQTT.

Zetta Features.

1. Built around Node.js, REST, websockets, and a flowbased "reactive programming"
2. Support wide range of hacker boards.
3. Zetta allows you to assembler Smartphone, apps, device apps, and cloud apps.

ThingSpeak Apps:

1. Analytics :- MATLAB Analysis, MATLAB Visualization, plugins.
2. Actions :- ThingTweet, TweetControl, Time Control, React, TalkBack, Thing HTTP.

Conclusion → Thus, we have Designed small applications Using Things speak.