

# Assignment No. 09

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Roll no: 06

AIM - Create a small dashboard application to be deployed on cloud. Different publishers devices can publish their information and interested applications can subscribe.

Theory\*

IOT Platforms

IOT Platforms are suites of components that help to setup and manage the internet connected devices. A person can remotely collect data, monitor and manage all internet connected from a signal system.

IOT Cloud Platforms -

1. Kaa IOT Platform
2. Site where: Open Platform for the IOT
3. Thing Speak: An IOT platform with MATLAB analytics
4. Devicetive: IOT made Easy
5. Zetta: API - First IOT Platform.

Kaa - Features:

1. Manage an unlimited number of connected devices.
2. Setup cross device operability.
3. Perform A/B service testing
4. Perform realtime device monitoring

- 5 Perform remote device provisioning & configuration
- 6 Collect and analyze sensor data.
- 7 Analyze user behaviour deliver targeted notification
- 8 Create cloud services for smart products.

Site where - Features:

1. Run any number of IOT application on a single site where instance
2. Spring delivers the core configuration framework
3. Connect devices with MQTT AMQP Stomp and other protocols
4. Add devices through self registration REST services or in batches.
5. Integrates with third-party integration framework such as Mule and point.
6. Default DB for event data storage is MongoDB
7. Eclipse Californium for CoAP messaging
8. InfluxDB for event data storage
9. Grafana to visualize site where data
10. HBase for non relational data store.

Thingspeak - Features.

1. Collect data in private channels.
2. Share data with public channels
3. RESTful and MQTT APIs
4. MATLAB Analytics and visualizations



- 5 Alert
- 6 Event Scheduling
- 7 App Integrations
- 8 Worldwide Community.

### DeviceHive - Features

1. Directly integrate with Alexa
2. Visualization dashboard of your choice
3. Customize DeviceHive behaviour by running your custom javascript code
4. It support bigdata solutions such as Hadoop, C. Search Apache Spark, Cassandra and Kafka for search real time and batch processing
5. Connect any device via REST API, websocket or HTTP.
6. It comes with Apache Spark streaming support
7. Supports libraries written in various programming languages including Android and iOS libraries
8. It allows running batch analytics and machine learning on top of your device data.

### Zetta - Features :

1. Built around Node.js REST, websockets and a flow based "reactive programming".
2. Support wide range of hacker boards.
3. Zetta allows you to assemble smartphone

