**BATCH NO: B1-1M3E**

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**Basic Knowledge about Cloud Services**

**IBM Watson IOT PLATFORM**

It is powerful Web Dashboard Flexible, scalable any easy use. It Provides a Clean and simple UI where we can simply and easily add and manage devices, Control access to IOT services, monitor the usage. It is fully managed cloud-Hosted service that is designed to simplify and device value from IOT devices.

**Device Management**

Using device management service, we can perform device actions like rebooting or updating firmware, receive device diagnostics and metadata, a perform Bulk device addition and removal.

**Responsive, scalable Connectivity**

It use the industry standard MQTT protocol to connect devices and applications MQTT IS designed for efficient exchange of data to and from device s in real time.

**Secure communications**

Securely receive data from and send commands do your devices. Do this using MQTT with TLS to secure all communication between your devices and our services.

**Data Life year Management**

Having accessed to real time data coming from our devices, you can opt to store data for a period of our choice, allowing you to access to historical and real time data for your devices.

**Node Red Service**

Node –Red is a programming tool for wiring together hardware devices, API’s and online services in new and interesting ways, It provides a browser based editor that makes it easy to wire together from using wide range of nodes in its palate that can be deployed to its runtime.

**Browser Based Flow Editing**

Node Red provides a browser based flow editor that makes it easy to wire together flows using wide range of nodes in the paletle.

JavaScript functions can be created within the editor using a rich text editor a build in library allow you to save useful functions templates or flow for reuse.

**Built on Node J S**

The eight weight runtime is built node JS taking full advantage of its event driven, non-blocking nodes. This makes its ideal to run at the edge of the network on low cost hardware such as Raspberry Pi as well as in the cloud.

**Social Development**

The flows created in Node –Red are stored using JSON which can be easily imported and exported for sharing with others

An Online flow library allows you to share you best flows with the world.

**IBM Cloudant**

IBM Cloudant is a fully managed, distributed database optimized for heavy workloads and fast. Growing Web and mobile apps, IBM cloudant is available as an IBM Clod service with a 99.99% SLA, Cloudant elastically scales throughput and storage, and its API and replicable protocols are compatible with Apache couchDB for hybrid or Multicloud architecture.

**Server less Web app and API**

It creates a server less web application by hosting static website content on github pages and implementing the application back end using IBM Cloud applications

**Mobile app with server less**

It uses IBM Cloud functions along with cognitive and data services to build a server less back end for a mobile app.

**Find Anomailer in IOT Data**

It set up an IOT Device and gather data in IBM Watson IOT Platform. It will creates visualizations and use advanced ML Services to analyze historical data and detect Anomailer.

**Open Hybrid Multicloud**

It show how to pair the API and powerful replication protocol of cloudant with Apache Couch DB in a hybrid Cloud environment.