IBM Watson IoT Platform

It is a powerful Web Dashboard. Flexible, scalable and easy to use. It provides a clean and simple UI where we can simply and easily add and manage devices, control access to IoT service, monitor the usage. It is fully managed cloud-hosted service that is designed to simplify and derive 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 uses the industry-standard MQTT protocol to connect devices and applications. MQTT is designed for efficient exchange of data to and from devices in real-time

Secure communication :-

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

Data Lifecycle Management :-

Having accessed its real-time data coming from our devices, you can opt to store data for a period of our choice, allowing you to have 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 flows using wide range of nodes in its palette 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 palette.

JavaScript functions can be created within the editor using a rich text editor. A built in library allows you to save useful functions templates or flow for re-use

Built on Node.js:-

The light weight runtime is built on node.js taking full advantage of its event driven, non-blocking model. 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 cloud service with a 99.99% SLA. Cloudant elastically scales throughput and storage, and its API and replication protocols are compatible with Apache CouchDB for hybrid or multicloud architectures.

Serverless web App and API:-

It'll create a serverless web application by hosting static website content on Github Pages and implementing the application back-end, using IBM cloud Applications

Mobile App with Serverless:-

It uses IBM cloud functions along with cognitive and data services to build a serverless back end for a mobile app.

Find Anomalies in IoT data:-

It sets up an IoT device and gather data in IBM watson IoT platform. It will create visualizations and use advanced ML services to analyze historical data and detect Anomalies.

Open Hybrid Multicloud:-

It shows how to pair the API and powerful replication protocol of cloudant with Apache CouchDB in a hybrid cloud environment.