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Team id	PNT2022TMID08269
Project Name	Smart Solutions for Railways

IBM CLOUD SERVICES

IBM WATSON IOT PLATFORM:

- Watson IoT Platform features Analytics and Watson APIs Completely manage your IoT landscape and make better business decisions.
- It assures delivery of messages Developer friendly libraries.
- It integrates with java environment.
- Allows development of interactive mobile messaging applications.
- Easy to use, web-based command line interfaces.
- Can be deployed on public cloud infrastructure in IBM cloud, Amazon and Azure cloud environments.

NODE - RED SERVICE:

- Node Red is a flow-based programming tool, originally developed by IBM's Emerging Technology Services team and now a part of the Open JS Foundation.
- The node part reflects both flow/node programming model as well as the underlying node.
- It is low code programming for event for event driven applications.
- Node-RED consists of a Node.js based runtime that you point a web browser at to access the flow editor.
- Within the browser you create your application by dragging nodes from your palette into a workspace and start to wire them together.
- With a single click, the application is deployed back to the runtime where it is run.

CLOUDANT DB:

- IBM Cloudant is a fully managed JSON document database that offers independent serverless scaling of provisioned throughput capacity and storage.
- Cloudant elastically scales throughput and storage and its API and replication protocols are compatible with Apache CouchDB for hybrid or multi-cloud architectures.
- IBM Cloud provides an option of creating a fully managed Cloudant instance on IBM Cloud.

OBJECT STORAGE:

- Object storage is computer-based data storage that manages data as objects.
- Object storage is used for purposes such as storing objects like videos and photos on Facebook, songs on Spotify or files in online collaboration services such as Dropbox.
- Object storage provides programmatic interfaces to allow applications to manipulate data.
- It does not support the locking and sharing mechanisms needed to maintain a single, accurately updated version of data.
- Object storage explicitly separates file metadata from data to support additional functionalities.

IBM CLOUD SERVICE:

The screenshot displays the IBM Cloud dashboard interface. At the top, a browser window shows the URL `cloud.ibm.com`. The dashboard header includes the IBM Cloud logo, a search bar, and navigation links for Catalog, Manage, and the user profile (MANJUNATH N's Acco...). The main content area is titled "Untitled" and features several service tiles:

- Apps**: Shows a single application "Node RED NHFHM 2022-11-09" with a green status icon. A "View all" link and a "Create an app +" button are present.
- DevOps toolchains**: Shows a single toolchain "NodeREDNHFHM2022-11-09" with a green status icon. A "View all" link and a "Create a toolchain +" button are present.
- Kubernetes**: Features a large blue cube icon with the Kubernetes logo. Below it, text states: "You can view your clusters here after you create them. [Create a cluster.](#)"
- IBM Cloud status**: Displays a "View all" link and a status visualization using a grid of dots.
- Planned maintenance**: Includes a "View all" link and a blue chat button.

A user profile dropdown menu is visible on the right, showing the name "MANJUNATH N" and options for Profile, Log in to CLI and API, Privacy, Change theme, and Log out →.