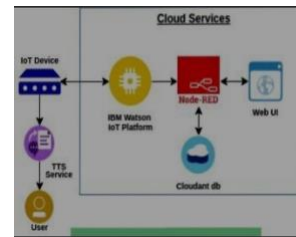## FUNCTIONAL REQUIREMENTS

PROJECT FLOW:

Users can configure the medicine name, and time through a web application . All the medicine details will be stored in the IBM Cloudant DB. The web application will send the medicine name to the IoT device at the desired time. After getting the medicine name the device will speak out the medicine name using IBM text to speech Service to intimate the user to take the medicine.

To accomplish this, we have to complete all the activities and tasks listed below:

- ➢ Create and configure IBM Cloud Services
- ➢ Create IBM Watson IoT Platform
- ➢ Create a device & configure the IBM IoT Platform
- ➢ Create Node-RED service
- ➢ Create text to speech service
- ➢ Create a database in Cloudant DB to store medicine details
- ➢ Develop a web Application using Node-RED Service
- ➢ Develop a python script to subscribe to the IBM IoT platform & Generate voice alerts

IOT DEVICES:

The services include a process model ,data entities, user stories, use cases and system design requirements .This defines the interaction of the IOT system with other systems.

TTS SERVICES AND UI:

A well-designed reusable object-oriented software system adheres to two key object-oriented design principles

- ➢ program to an interface, not an implementation
- ➢ favor object composition over class inheritance.

Furthermore, the effect of unit testing (especially in the context of test-first or test-driven development) on quality of the requirements.

CLOUDANT DB:

Cloudant handles software and hardware provisioning, management and scaling, and support. You'll receive high availability and elastic scaling of the hardware as your provisioned throughput capacity needs change. Learn about the other benefits of database as a service (DBaaS).

AUTHENTICATION MODULE :

A plug-in that collects user information such as a user ID and password, and compares the information against entries in a database.