SPRINT-4

Date	20 NOVEMBER 2022
Team ID	PNT2022TMID12156
Project Name	Personal Assistance for Seniors Who Are Self Reliant

TASK: -

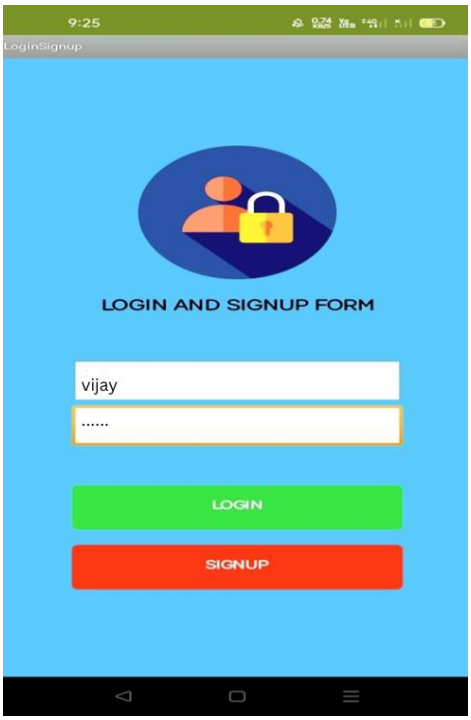
To create a Web UI, make the user interact with the software.

DESCRIPTION: -

- We have used **IoT Watson platform** for the creation of IoT device.
- The web application is built using **Node-RED** for collecting the medicine details from the users.
- We have used the **Cloudant DB** for storing the collected data.
- The web application will send the medicine details to the created IoT device.
- The IoT device on receiving the details, it makes use of TTS to remind the user about the medicine.
- By using **TTS** (Text to Speech) service from the IBM platform, the medicinal information will be notified to the users in the form of voice commands.

Following are the screenshots that demonstrate the Web UI where user interact with the software.

1) User Sign Up &Login:

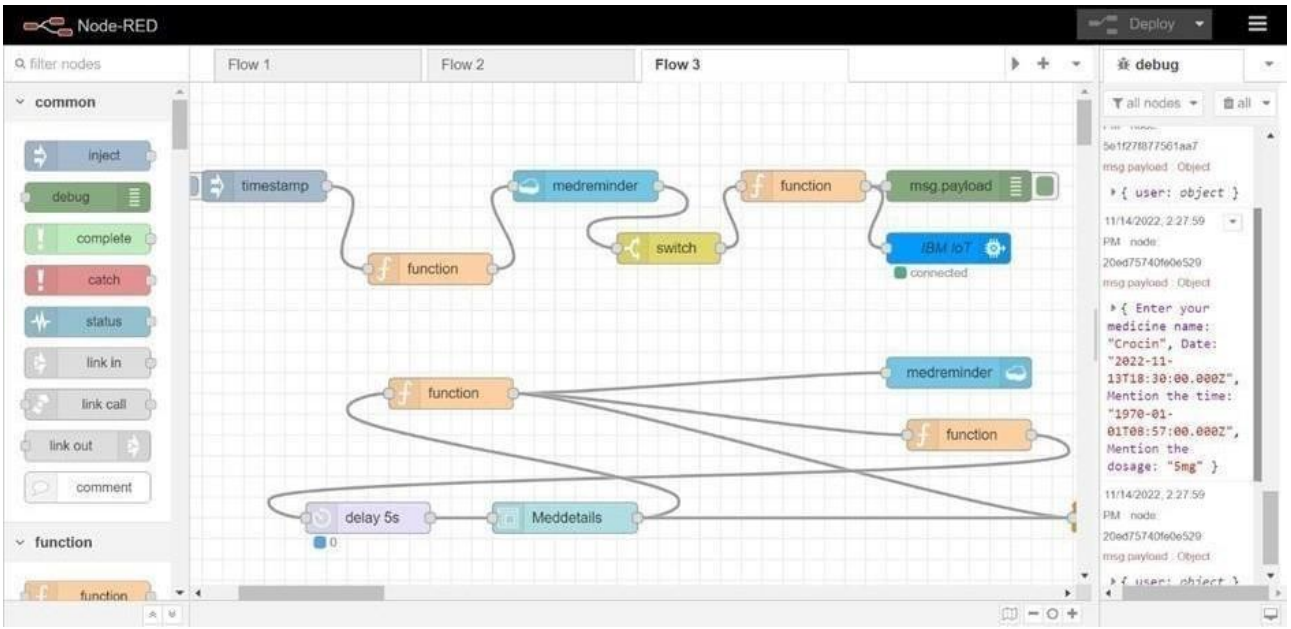


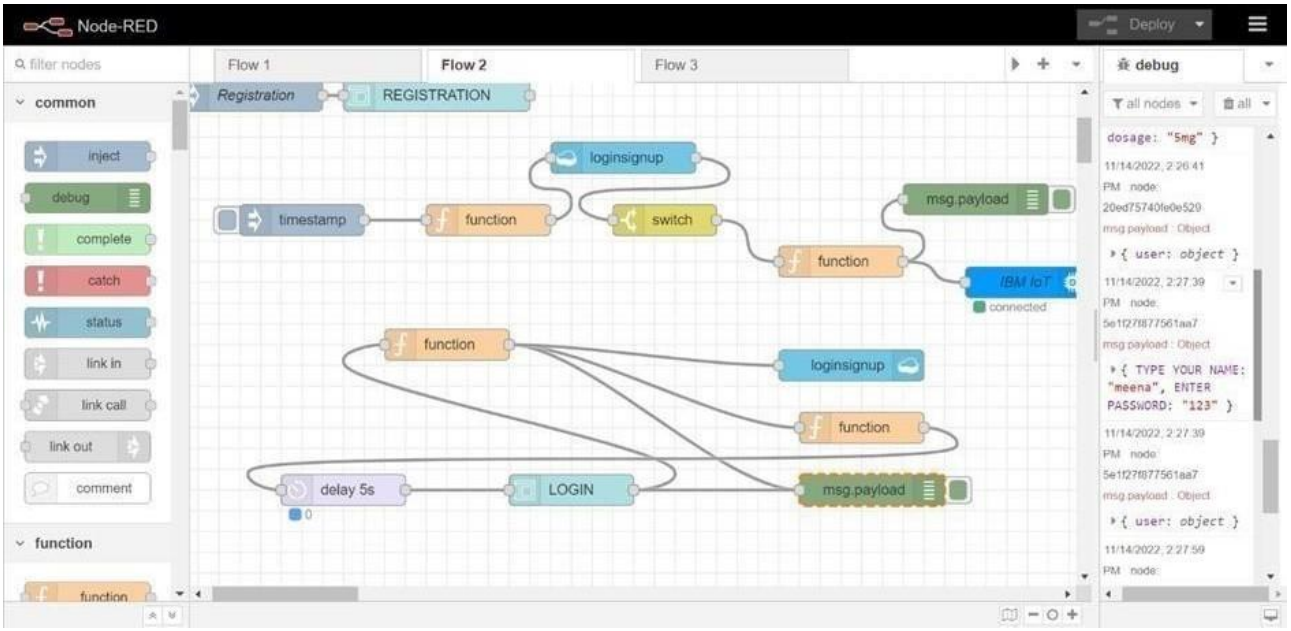
- The user will first signup with username & password.
- Then using credentials, the user can login into the app.

2) User- Medicine Details Form:

- Here, user will able to set the medicine alarm with medicine name, medicine dosage with date & time.

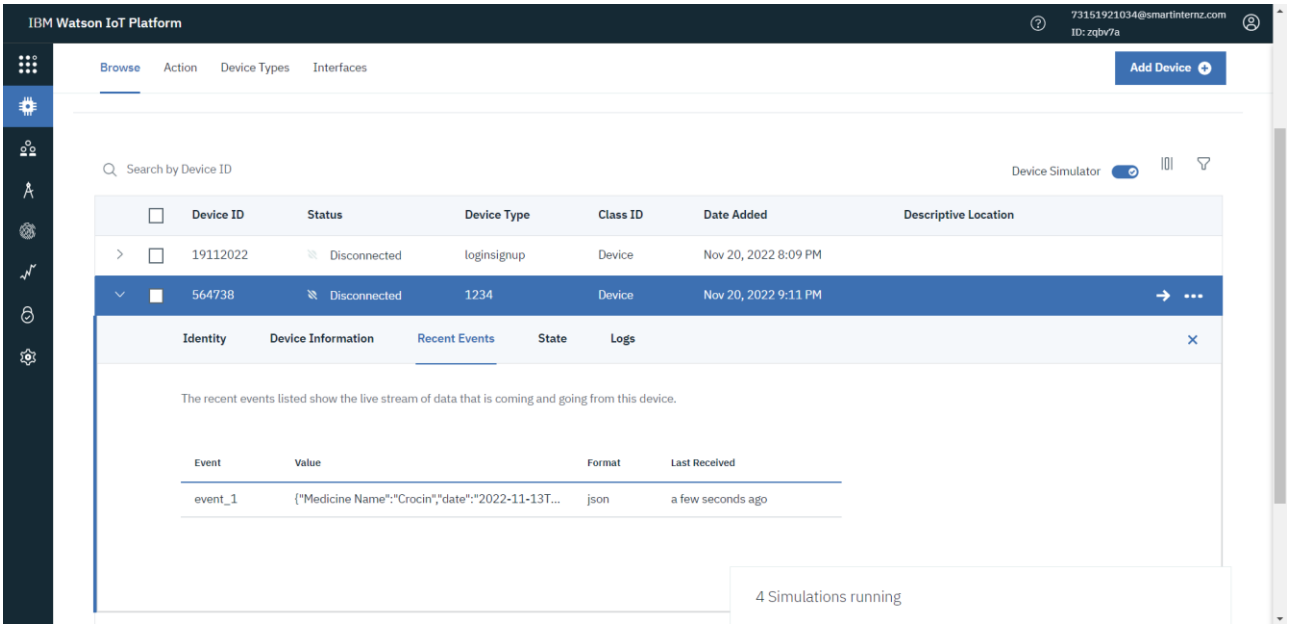
3) Node red Work Flow:





- Using Node-Red flow editor, all the workflow of our web app was designed.
- The above screenshots are the Node Red- flow of login/signup page and home screen of the web app.

4) IBM IOT Device:

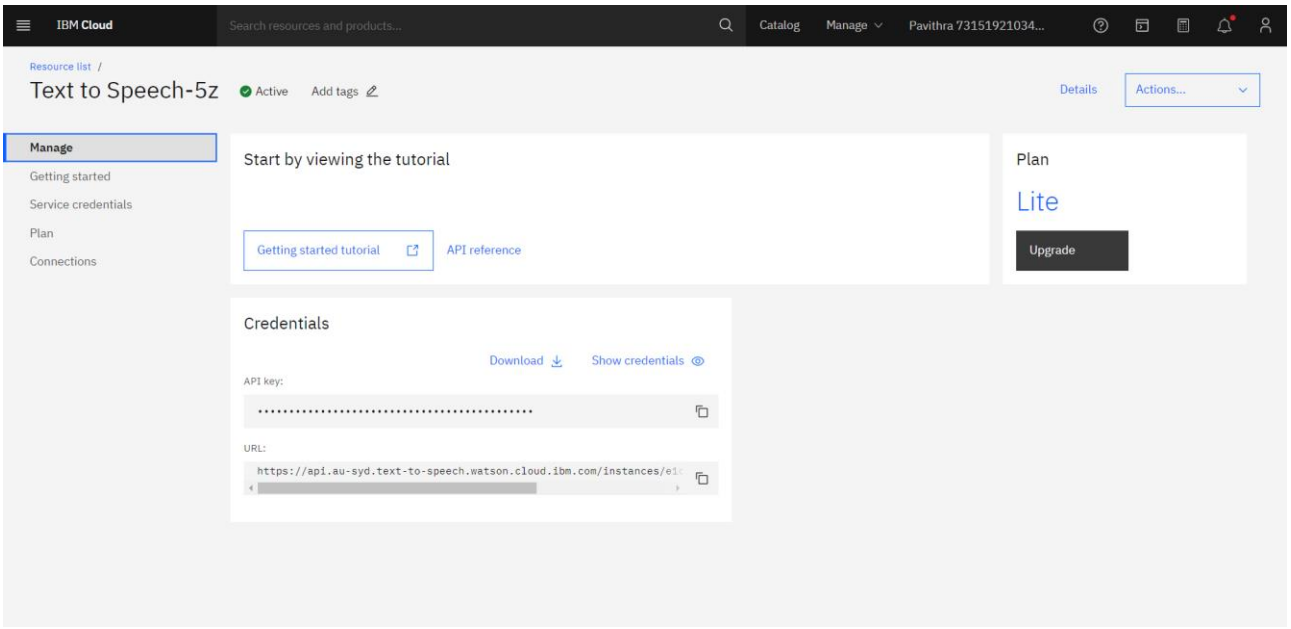


- The user details are fetched by IoT device named as "Med reminder" which is created through IBM Watson Platform.

5) CLOUDANT-DB:

- All the medicine details from the user are get stored in IBM Cloudant Database in a JSON Format under the Med reminder database.

6)TTS Service:



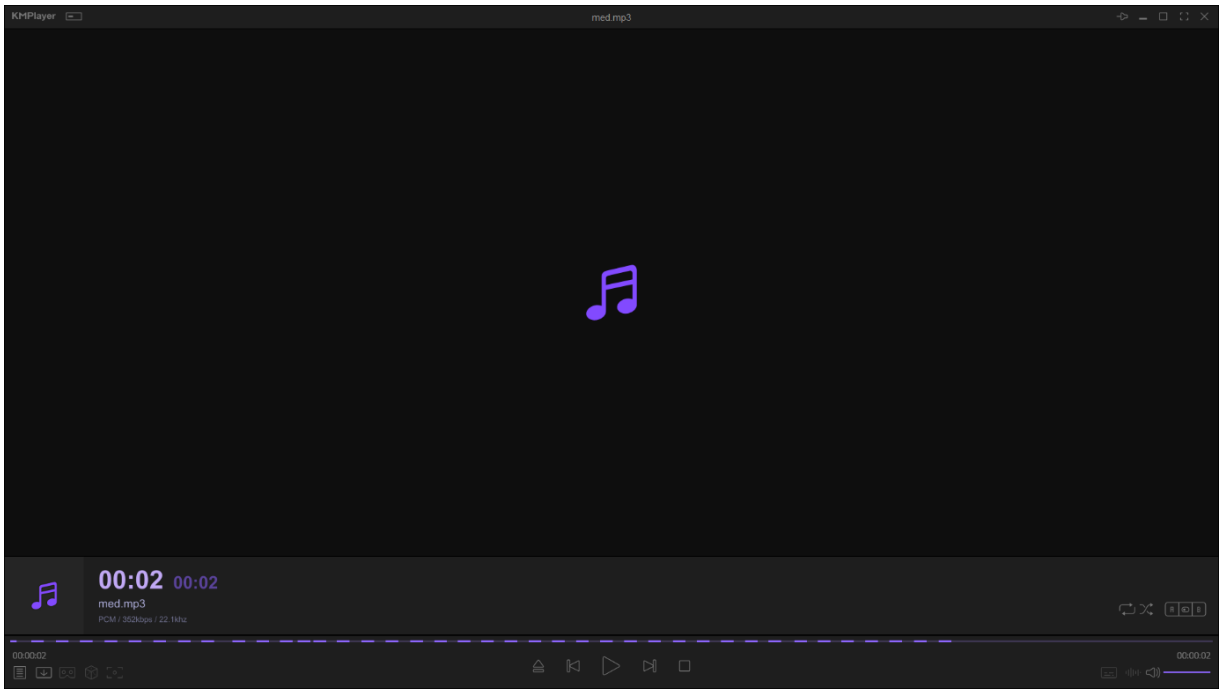
- IBM TTS service is used to notify the user's medicine name and dosage via voice Commands

7)PYTHON FILE -TTS SERVICE:

```
*IDLE Shell 3.10.8 - C:/Users/Pavithra/AppData/Local/Programs/Python/Python310-32/tts.py (3.10.8)*
File  Edit  Shell  Debug  Options  Window  Help
    Python 3.10.8 (tags/v3.10.8:aaaf517, Oct 11 2022, 16:37:59) [MSC v.1933 32 bit (Intel)] on win32
    Type "help", "copyright", "credits" or "license()" for more information.
>>> from ibm_watson import TextToSpeechV1
... from ibm_cloud_sdk_core.authenticators import IAMAuthenticator
... from playsound import playsound
... authenticator = IAMAuthenticator('97f228C6Ec0YbfJrxCB7YW690uPadxJOjbuA0DBK8xFh')text_to_speech=TextToSpeechV1 (
... authenticator-authenticator
... )
... text_to_speech.set_service_url('https://api.eu-gb.text-to-speech.watson.cloud.ib
... with open('med.mp3', 'wb') as audio_file:
... audio file.write(
... text_to_speech.synthesize(
... 'Take Crocin 50 mg Now',
... voice='en-US_AllisonV3Voice',
... accept='audio/wav'
... ).get_result().content)
... print ("playing")
... playsound ('med.mp3')
```

- This python file convert the text to speech using IBM TTS service. Using this ,Web application make an alert to the user via voice commands.

Voice Command TTS Service:



- Above screenshot contain the voice command when user get notification about intaking of medicine which is given by the user via web application.

RESULT:

Thus, By the end of the sprint-4, the Web UI where user interact with the software is successfully created and tested successfully.