

# Sprint – 4

## Personal Assistance for Seniors Who Are Self-Reliant.

### PNT2022TMID36322

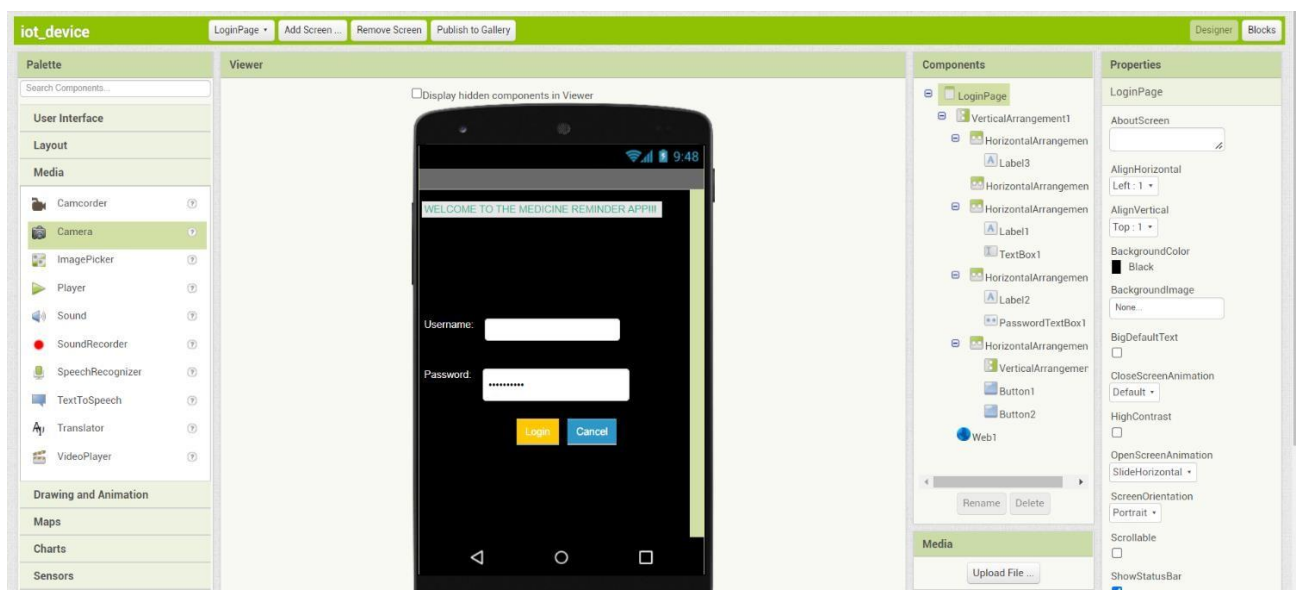
**SPRINT 4** - *Creating a Mobile application using MIT App inventor to add medicine and monitor the medicines.*

#### 1.APP SETUP

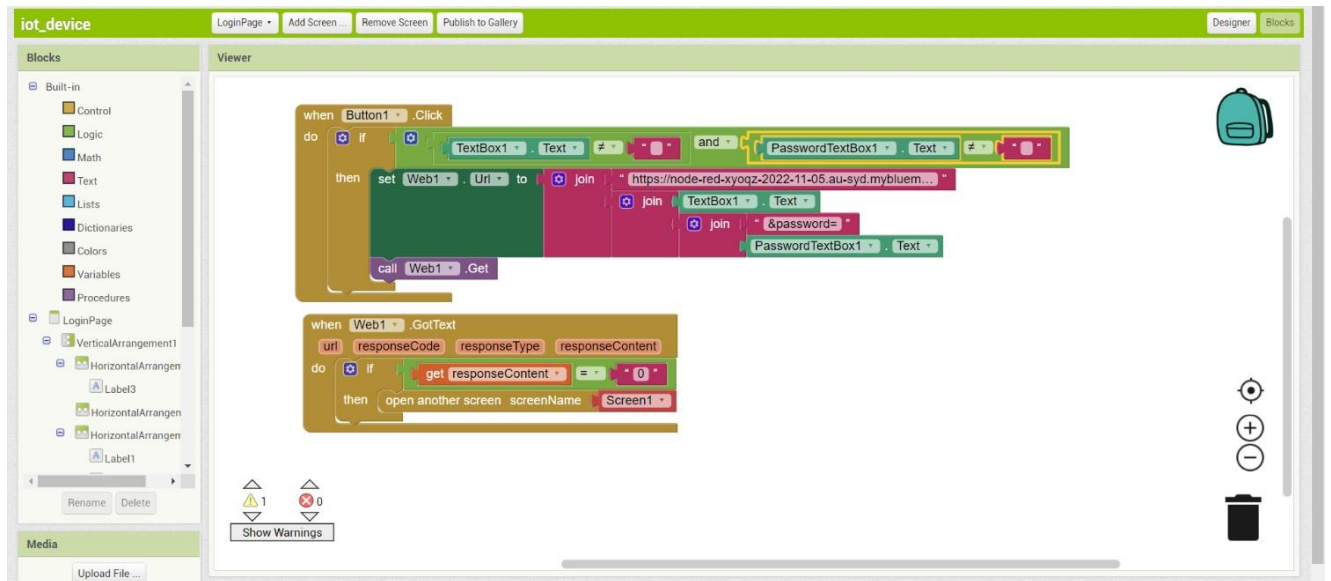
The app consists of two screen. First screen is the login page and the second is the medicine details page.

SCREEN 1:

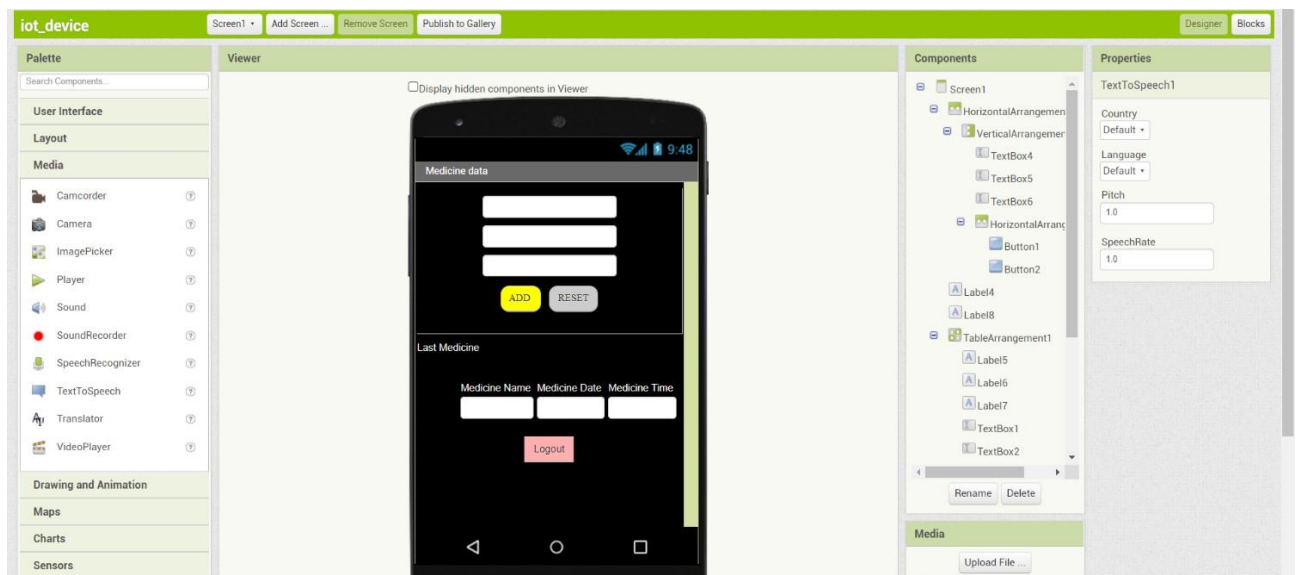
LOGIN SCREEN (DESIGN):



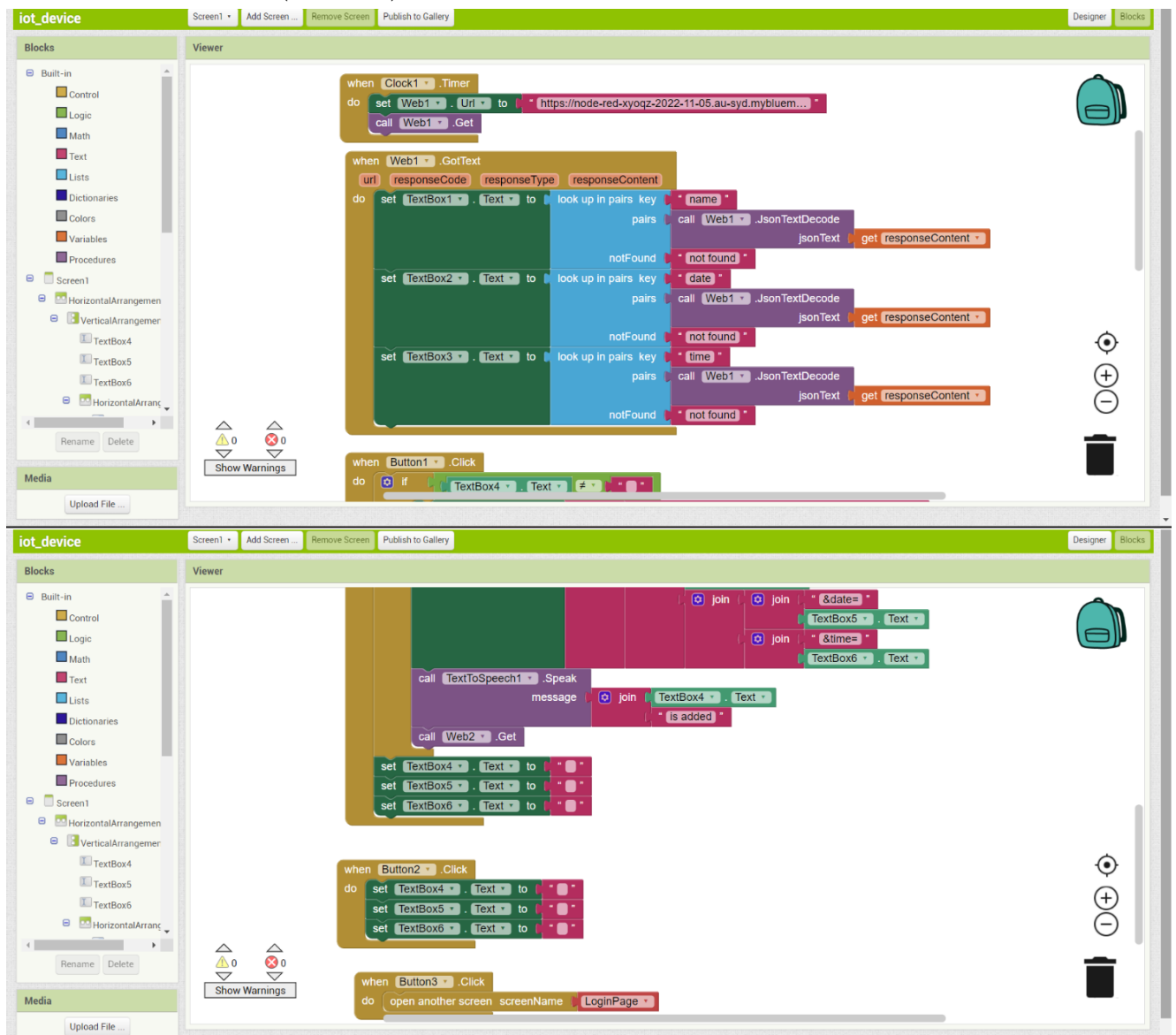
## LOGIN SCREEN(BLOCK):



## SCREEN 2: MEDICINE SCREEN (DESIGN):

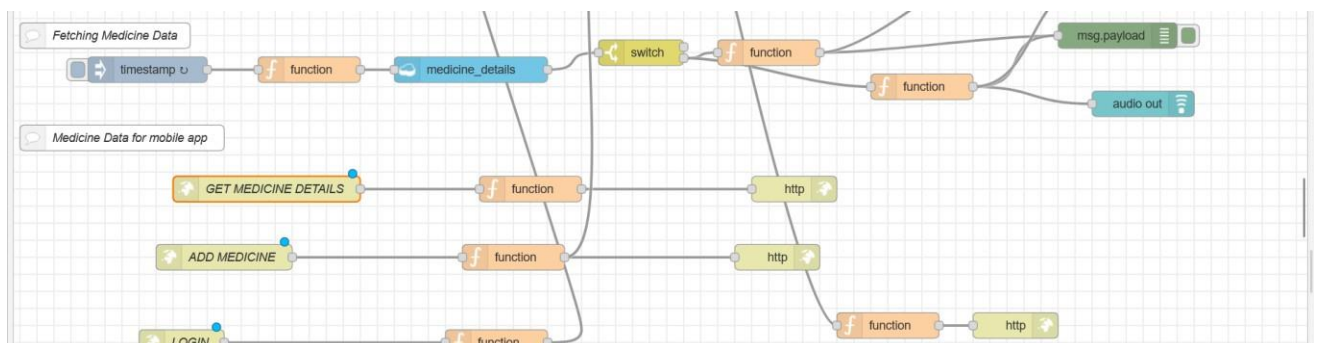


## MEDICINE SCREEN(BLOCK):



## 2.NODE RED FLOW

The flow has http get requests for logging in, adding medicine details and fetching medicine details.



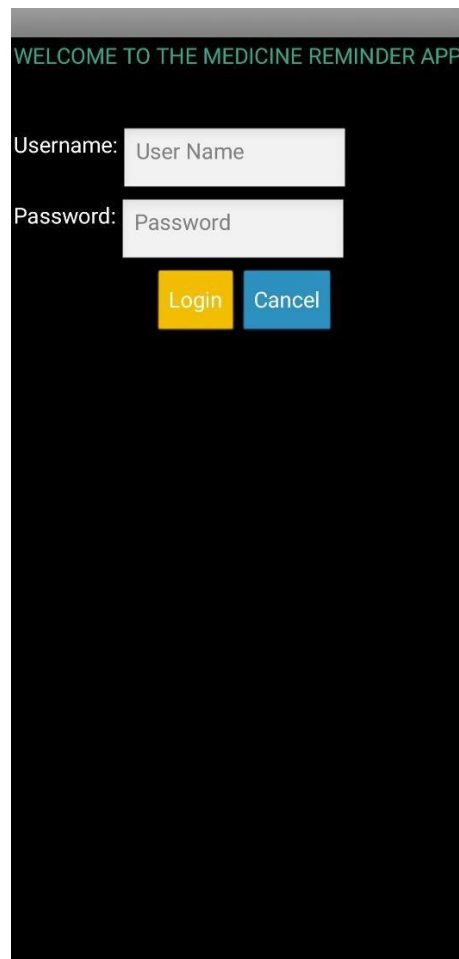
When the user logs in through the mobile application, the username and password is passed from the login url as json parameters which is then verified in the database.

When medicine details are added from the mobile application, the added details is passed using the add\_medicine url which contains medicine name, date and time as parameters in json format.

And the latest medicine that was taken is displayed in the mobile application using the med\_details url.

1. **Mobile application** The user can login into the mobile application and add medicine details or check the last medicine that was consumed.

*Login Screen:*



The image shows a mobile application login screen with a black background. At the top, there is a green header bar with the text "WELCOME TO THE MEDICINE REMINDER APP". Below the header, there are two input fields: "Username:" with a placeholder "User Name" and "Password:" with a placeholder "Password". Below the password field, there are two buttons: a yellow "Login" button and a blue "Cancel" button.

*Medicine Screen:*

Medicine data

Paracetamol

2022-11-17

00:52

ADD

RESET

Last Medicine

Medicine Name

Medicine Date

Medicine Time

citrizen

2022-11-17

23:45

Logout

Medicine data

Enter Medicine Nam

Date(YYYY-MM-DD)

Time(HH:MM)

ADD

RESET

Last Medicine

Medicine Name

Medicine Date

Medicine Time

citrizen

2022-11-17

23:45

Logout

The image is a screenshot of a Tinkercad workspace. In the center, an ESP32 microcontroller is connected to three components: a red LED, a buzzer, and an LCD screen. The LED is connected to a digital pin and is currently lit. The buzzer is connected to an analog pin. The LCD screen, which has a green border, displays the text "It's time for PARACETAMOL" in a green, monospaced font. The background is dark gray. At the top right, a status bar shows a timer at 00:30:245 and a battery icon at 100%. At the bottom, a console window displays the following text: "Reconnecting client to by18wl.messaging.internetofthings.ibmcloud.com", "iot-2/cmd/test/fmt/string", "subscribe to cmd OK", "callback invoked for topic: iot-2/cmd/test/fmt/string", "PARACETAMOLdata: PARACETAMOL", and "PARACETAMOL".

*The database is also updated when the user enters the data into from the mobile application.*

←

medicine\_details

+  
All Documents

-  
Query

-  
Permissions

-  
Changes

+  
Design Documents

Document ID

Options

{ }JSON

Create Document

_id	date	name	time
<input type="checkbox"/>	2022-11-13 17:05	2022-11-13	PARACETAMOL 17:05
<input type="checkbox"/>	2022-11-13 17:24	2022-11-13	Amoxylin 17:24
<input type="checkbox"/>	2022-11-13 17:30	2022-11-13	Amoxylin 17:30
<input type="checkbox"/>	2022-11-13 17:32	2022-11-13	Paracetamol 17:32
<input type="checkbox"/>	2022-11-13 17:40	2022-11-13	Dolo 360 17:40
<input type="checkbox"/>	2022-11-13 18:55	2022-11-13	Amoxylin 18:55
<input type="checkbox"/>	abhi 2022-11-14 18:35	2022-11-14	Amoxylin 18:35
<input type="checkbox"/>	abhi 2022-11-14 18:39	2022-11-14	Dolo 365 18:39
<input type="checkbox"/>	abhi 2022-11-14 18:41	2022-11-14	Dolo 360 18:41
<input type="checkbox"/>	swathi 2022-11-14 18:18	2022-11-14	Amoxylin 18:18
<input type="checkbox"/>	swathi 2022-11-14 18:32	2022-11-14	Amoxylin 18:32
<input type="checkbox"/>	swathi 2022-11-14 18:34	2022-11-14	Amoxylin 18:34
<input type="checkbox"/>	swathi 2022-11-17 14:03	2022-11-17	Paracetaomel 14:03

*“Thus the Personal Assistance for Seniors Who Are Self-Reliant was successfully developed. It makes use of node-red for web UI and adding details to cloudant and it is also responsible for issuing command to the IBM IOT Watson platform. IBM IOT Watson platform gets the command from the node red flow when medicine has to be taken and sends it to the IOT device which signals when the medicine time arrives.*

*This communication is done using MQTT and HTTP protocol. IBM text to speech service is also used to orally tell the tablet name to the user. Finally, the mobile application developed with the help of MIT App inventor is used for adding and monitoring the medicines which is user friendly and convenient. ”*

***Future improvement:*** *IOT DEVICE can consist of sensors to monitor number of medicines and separate racks for each medicine and provide that medicine when the time arrives and also speech to text service to recognize the user voice rather than using push buttons to snooze or turn off the alarm.*