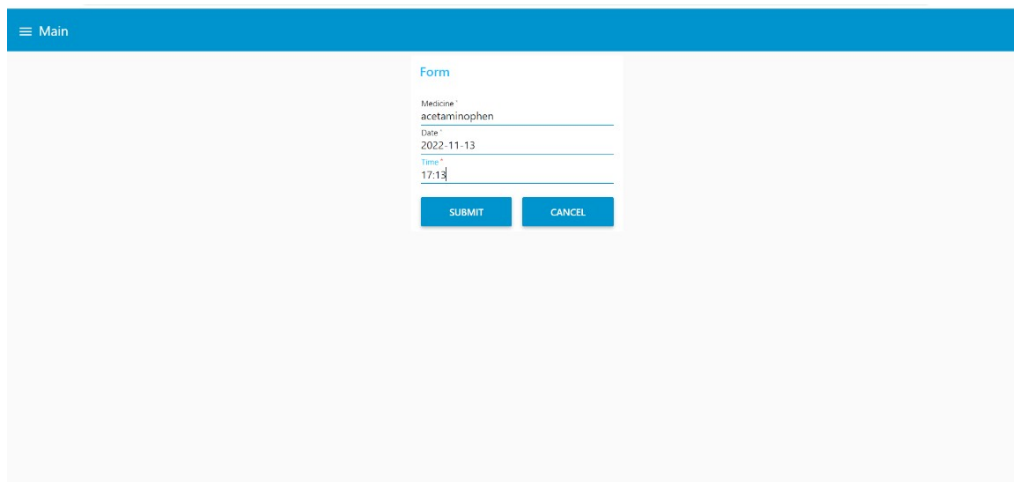


FINAL DELIVERABLE

Team ID	PNT2022TMID28830
Project Name	Personal Assistance for Seniors Who Are Self Reliant

WEB APPLICATION

1. Get Data From User:

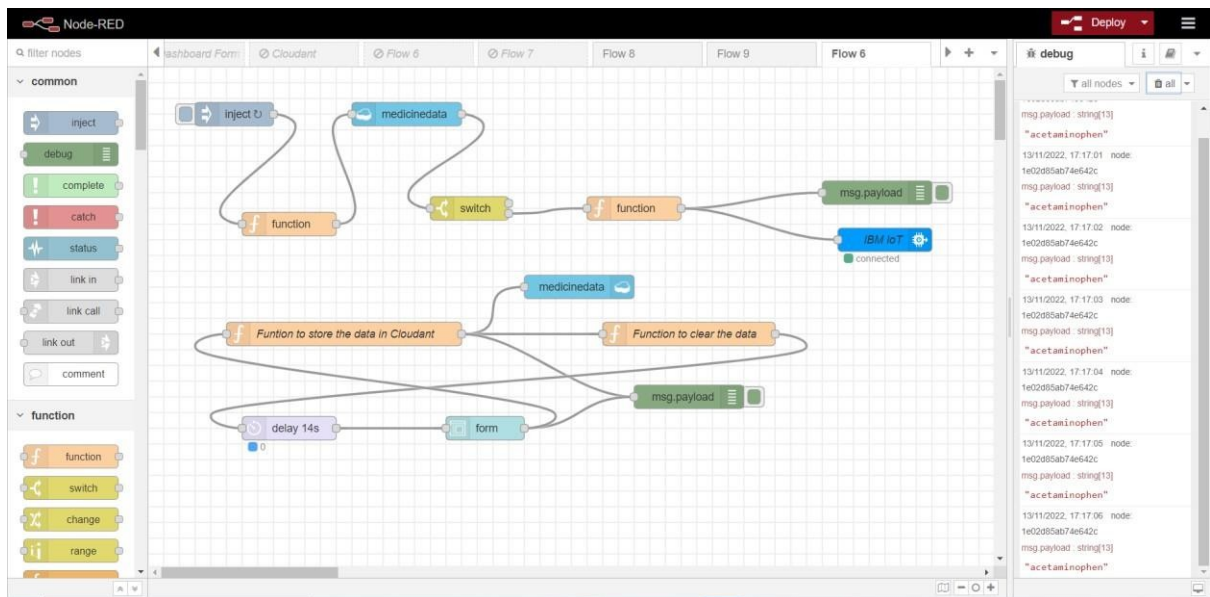


The screenshot shows a web application interface. At the top, there is a blue header bar with a hamburger menu icon and the text 'Main'. Below the header, there is a light gray background. In the center, there is a white box titled 'Form'. Inside the form, there are three input fields: 'Medicine' with the value 'acetaminophen', 'Date' with the value '2022-11-13', and 'Time' with the value '17:13'. Below the input fields, there are two buttons: 'SUBMIT' and 'CANCEL'.

2. Stored in Cloudant



3. Display in Node-red



4. Streaming in Watson IoT Platform

64yf7x.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
b11m3edevicid	Connected	b11m3edevicetype	Device	Oct 29, 2022 9:44 PM	

Identity

Device Information

Recent Events

State

Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
IoT Device	{"medicine":"acetaminophen"}	json	a few seconds ago
IoT Device	{"medicine":"acetaminophen"}	json	a few seconds ago
IoT Device	{"medicine":"acetaminophen"}	json	a few seconds ago
IoT Device	{"medicine":"acetaminophen"}	json	a few seconds ago
IoT Device	{"medicine":"acetaminophen"}	json	a few seconds ago

5. Simulation

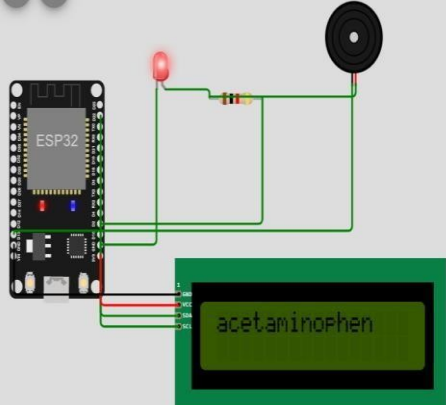
WOKWI SAVE SHARE Medicine Remainder Docs

PNT2022TMD50622.ino diagram.json libraries.txt Library Manager

```
1 #include <WiFi.h> //library for wifi
2 #include <PubSubClient.h> //library for MQTT
3 #include <LiquidCrystal_I2C.h>
4 #include "DHT.h" // Library for dht11
5 #define DHTPIN 15 // what pin we're connected to
6 #define DHTTYPE DHT11 // define type of sensor DHT 11
7 #define LED 2
8 DHT dht (DHTPIN, DHTTYPE); // creating the instance by passing pin and type of dht
9 void callback(char* subscribetopic, byte* payload, unsigned int payloadLength);
10
11
12 //-----credentials of IBM Accounts-----
13
14 #define ORG "64yf7x" //IBM ORGANIZATION ID
15 #define DEVICE_TYPE "b11m3edevicetype" //Device type mentioned in ibm watson IOT
16 #define DEVICE_ID "b11m3edeviceid" //Device ID mentioned in ibm watson IOT Platform
17 #define TOKEN "-&entr7l-v-Gz26)e" //Token
18 String data3="";
19 int buzz= 13;
20
21 //----- Customise the above values -----
22 char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; // Server Name
23 char publishTopic[] = "iot-2/evt/data/fmt/json"; // topic name and type of event
24 char subscribetopic[] = "iot-2/cmd/command/fmt/String"; // cmd REPRESENT command
25 char authMethod[] = "use-token-auth"; // authentication method
26 char token[] = TOKEN;
27 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID; //client id
28 LiquidCrystal_I2C lcd(0x27,16,2);
29
30 //-----
31 WiFiClient wifiClient; // creating the instance for wifiClient
32 PubSubClient client(server, 1883, callback, wifiClient); //calling the predefined
33
34 void setup() // configuring the ESP32
35 {
```

Simulation

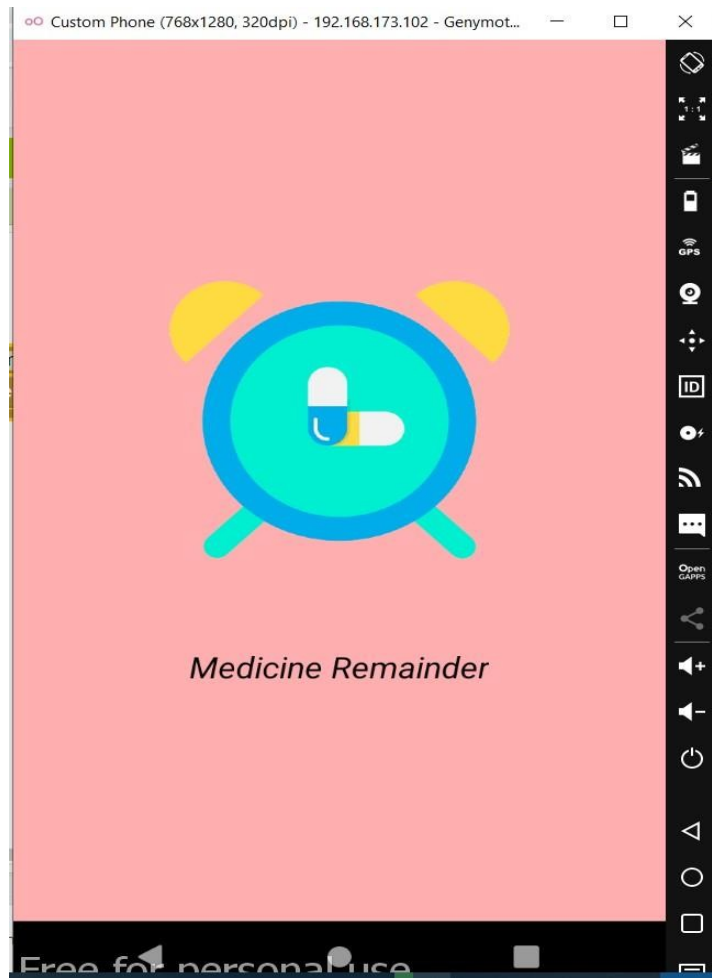
00:21.421 89%



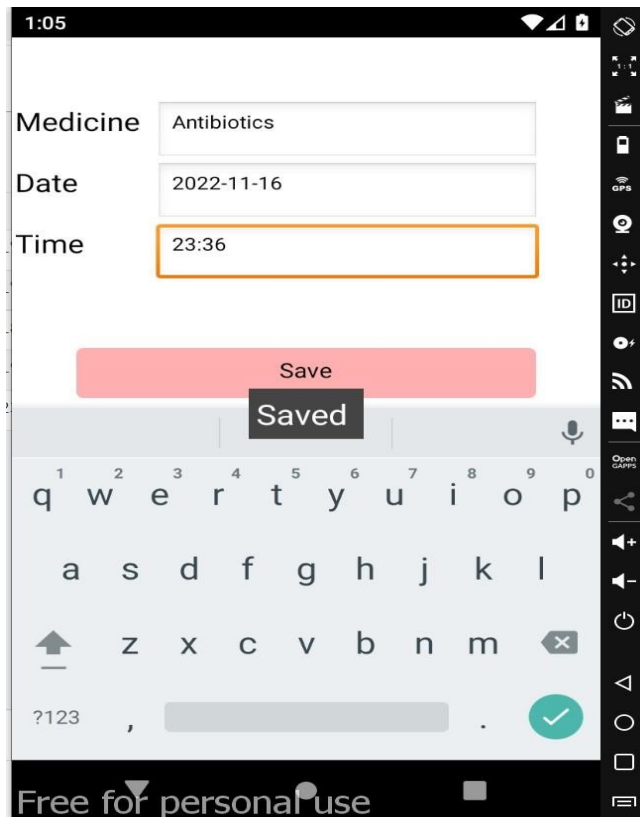
Medicine Name: acetaminophen
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: acetaminophen
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: acetaminophen
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: acetaminophen

Mobile Application

1. Splash Screen

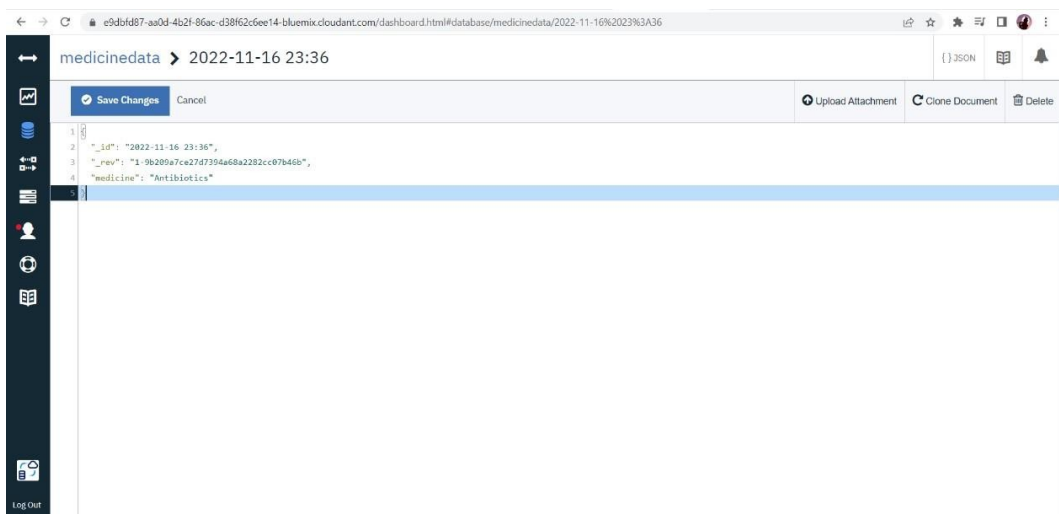


2. Get Data From User

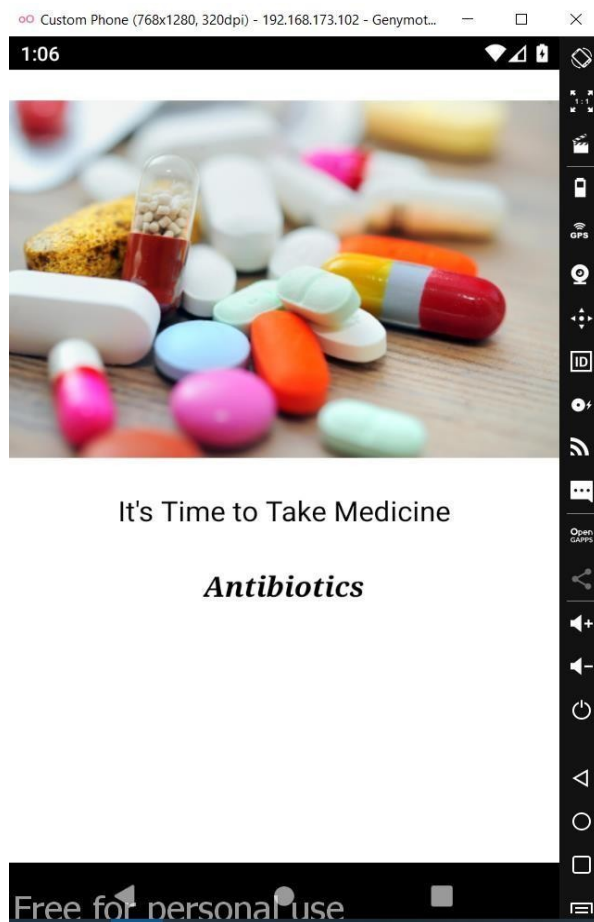


A mobile application interface for data entry. At the top, the status bar shows the time 1:05 and various icons. The main form has three input fields: 'Medicine' with the value 'Antibiotics', 'Date' with '2022-11-16', and 'Time' with '23:36'. Below these fields is a red 'Save' button. A black toast message 'Saved' is displayed over the button. At the bottom, a QWERTY keyboard is visible. The app's bottom bar says 'Free for personal use'.

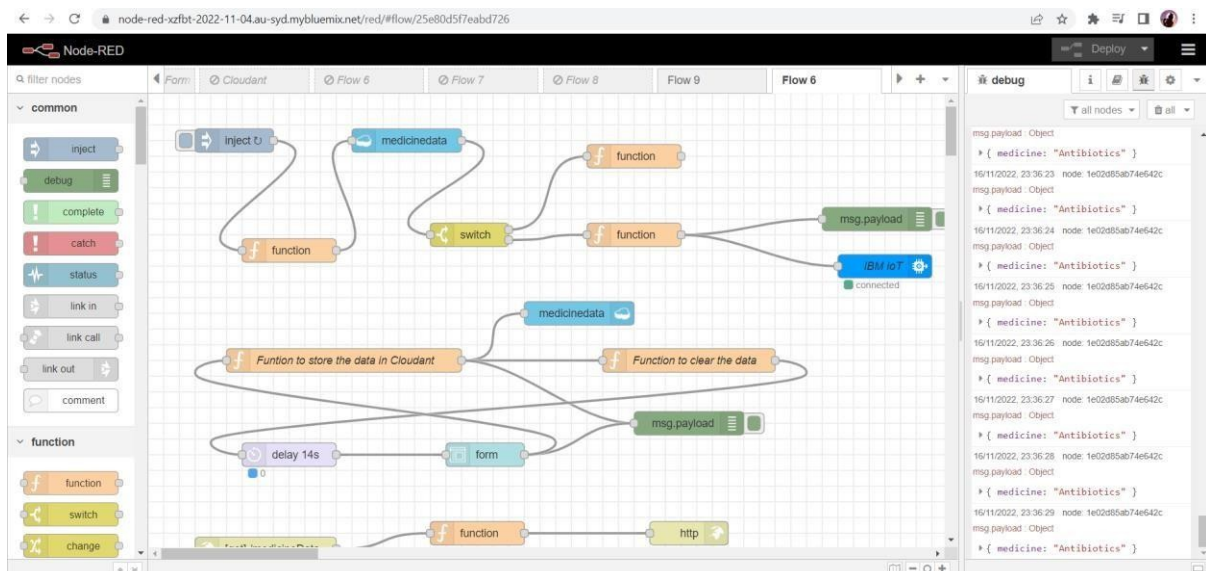
3. Store in Cloudant DB



4. Display Remainder with audio



5. Display in node-red

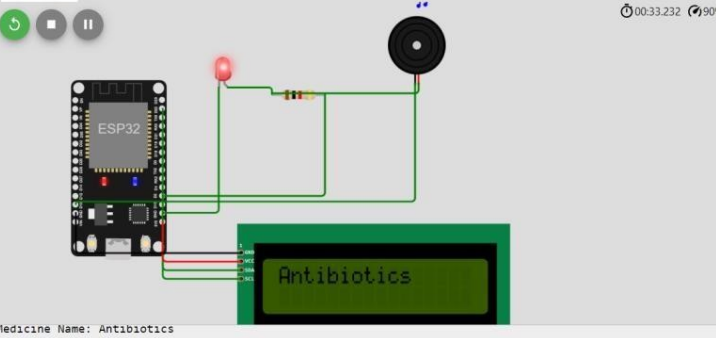


6. Remainder in Simulation

WOKWI SAVE SHARE Medicine Remainder Docs

PN T2022TMD50622.ino diagram.json libraries.txt Library Manager Simulation 00:33.232 90%

```
87 Serial.println("wifi connected");
88 Serial.println("IP address: ");
89 Serial.println(WiFi.localIP());
90 }
91
92 void initManagedDevice() {
93   if (client.subscribe(subscribetopic)) {
94     Serial.println(subscribetopic);
95     Serial.println("subscribe to cmd OK");
96   } else {
97     Serial.println("subscribe to cmd FAILED");
98   }
99 }
100
101 void callback(char* subscribetopic, byte* payload, unsigned int
102 {
103
104   Serial.print("callback invoked for topic: ");
105   Serial.println(subscribetopic);
106   for (int i = 13; i < payloadlength-2; i++) {
107     //Serial.print((char)payload[i]);
108     data3 += (char)payload[i];
109   }
110
111   Serial.println("Medicine Name: "+ data3);
112   if(data3 != "")
113   {
114     lcd.init();
115
116     lcd.print(data3);
117     digitalWrite(LED,HIGH);
118     tone(buzz, 100, 1000);
119   }
```



Medicine Name: Antibiotics
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: Antibiotics
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: Antibiotics
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: Antibiotics