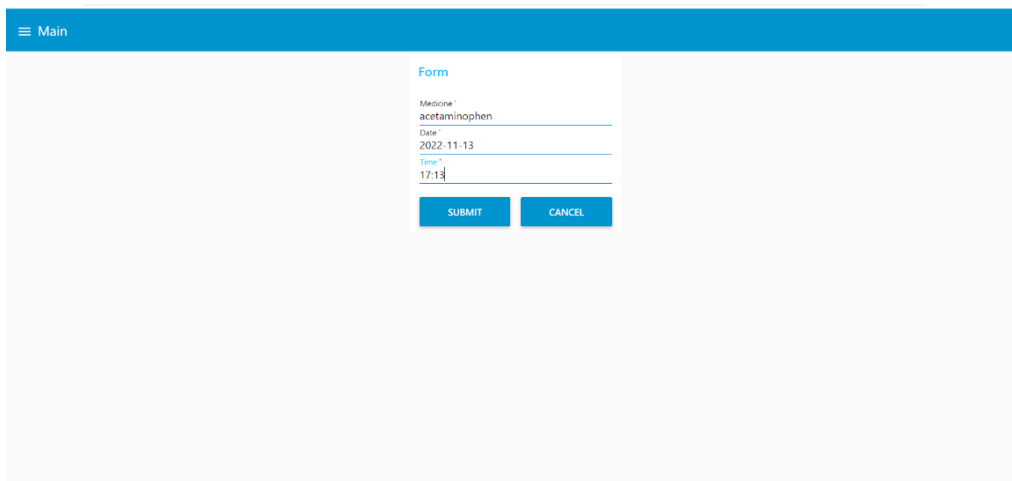


Final Deliverables

Team ID	PNT2022TMID04003
Project Name	Personal Assistance for Seniors Who Are SelfReliant

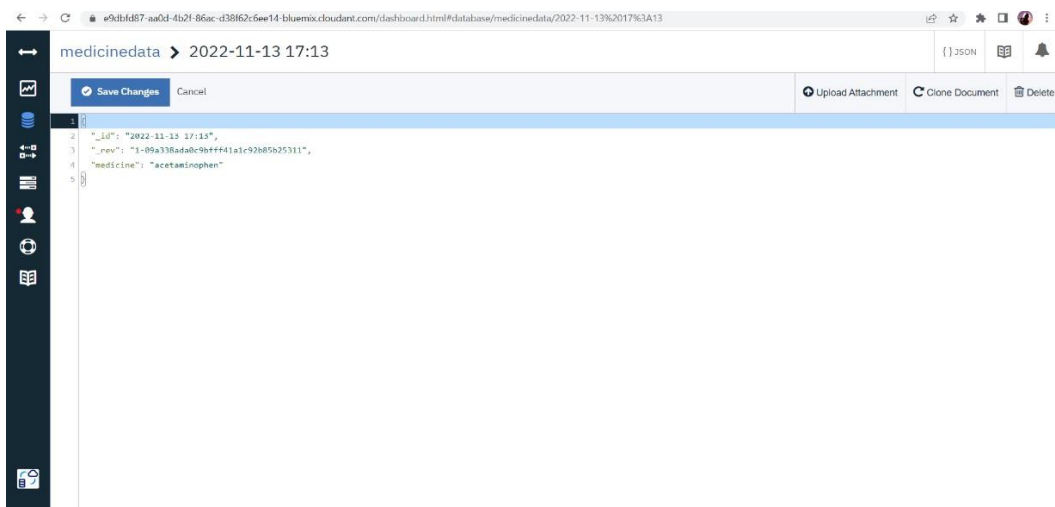
Web Application

1. Get Data From User:

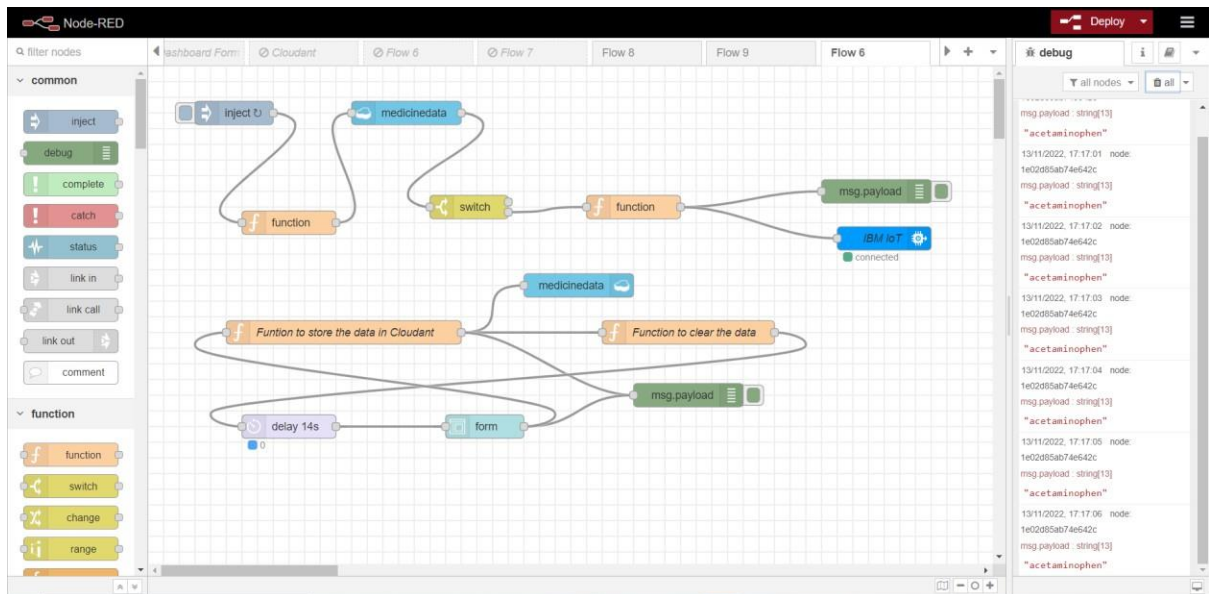


The screenshot shows a web application interface with a blue header bar containing a hamburger menu icon and the text 'Main'. Below the header, there is a light gray background. In the center, there is a white box titled 'Form'. Inside the form, there are three input fields: 'Medicine' with the value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

2. Stored in Cloudant



3. Display in Node-red



4. Streaming in Watson IoT Platform

The IBM Watson IoT Platform interface displays the following information:

Device Details:

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
b11m3edeviceld	Connected	b11m3edevicetype	Device	Oct 29, 2022 9:44 PM	

Recent Events:

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

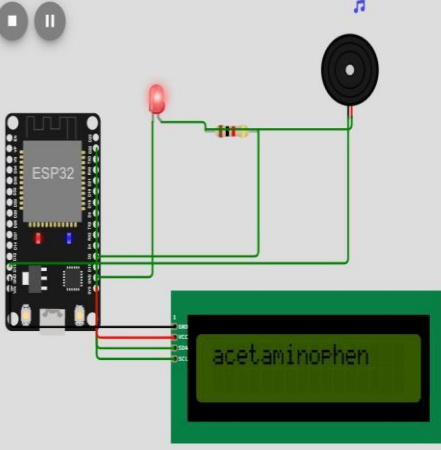
WOKWI SAVE SHARE Medicine Remainder Docs

PNT2022TMID50622.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 "b11m3edevicid" // Device ID mentioned in ibm watson IOT Platform
17 #define TOKEN "-&EMtr7L-v-Gz2G)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

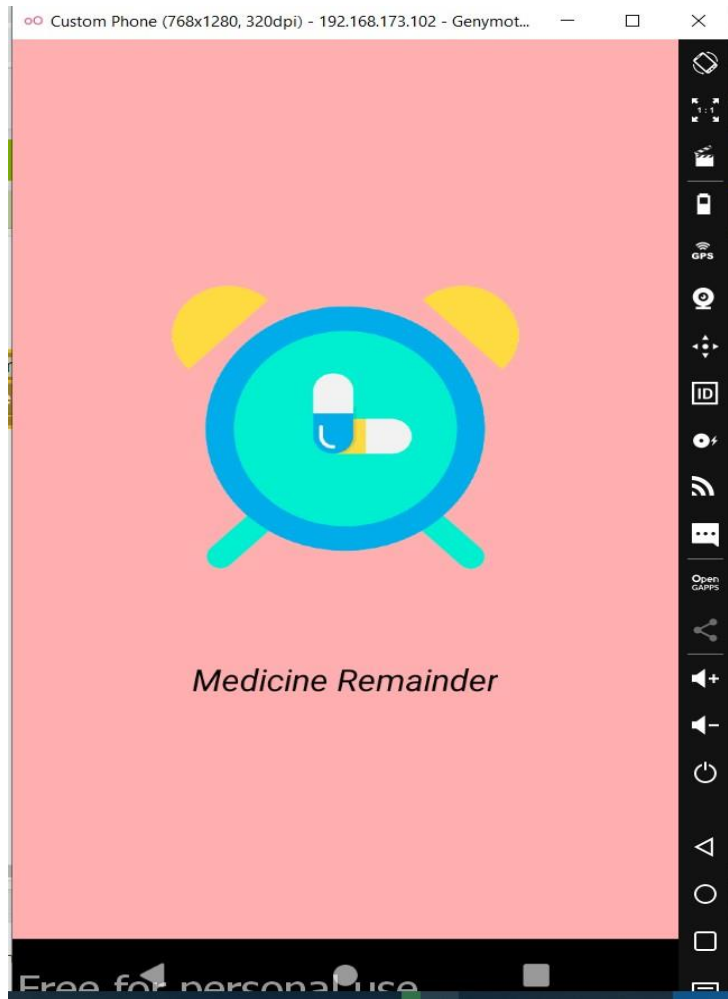
00:21.421 89%



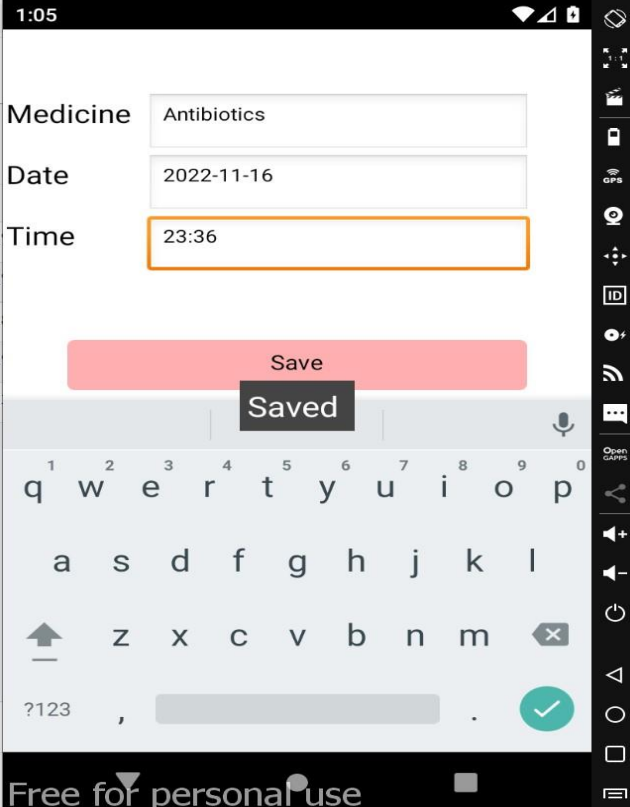
Medicine Name: acetaminophen
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: acetaminophen
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: acetaminophen
callback invoked for topic: iot-2/cmd/command/fmt/String
Medicine Name: acetaminophen

Mobile Application

1. Splash Screen

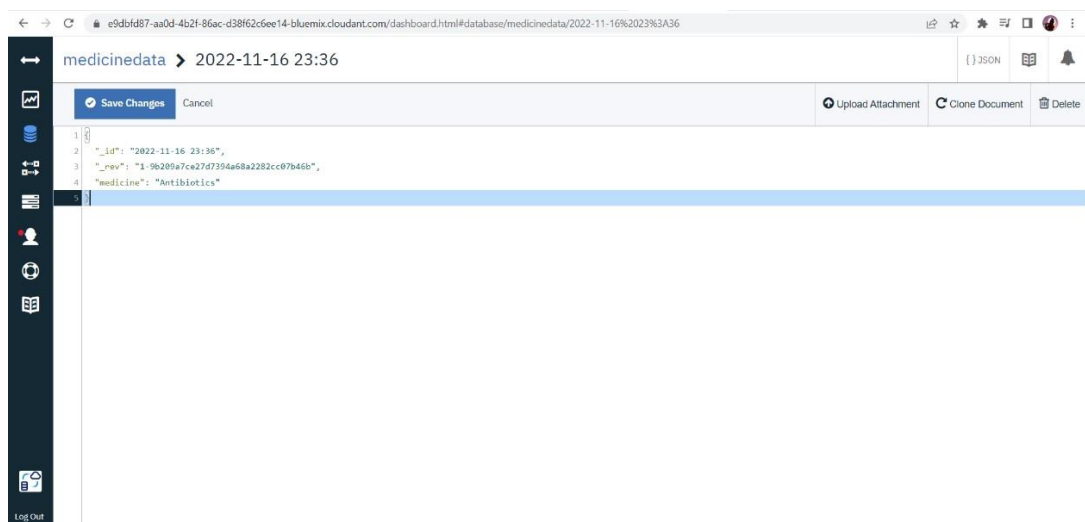


2. Get Data From User

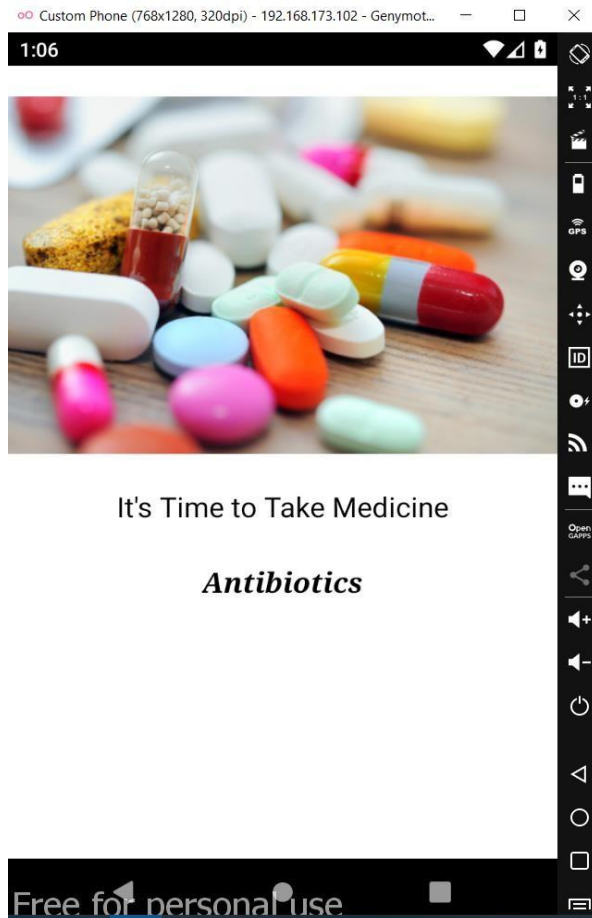


A screenshot of a mobile application interface. At the top, the status bar shows the time 1:05 and various icons. The app has a dark theme. The main form has three input fields: 'Medicine' with the value 'Antibiotics', 'Date' with '2022-11-16', and 'Time' with '23:36'. The 'Time' field is highlighted with an orange border. Below the fields is a red 'Save' button. A black toast message 'Saved' is displayed over the button. A virtual keyboard is visible at the bottom, and a 'Free for personal use' watermark is at the very bottom.

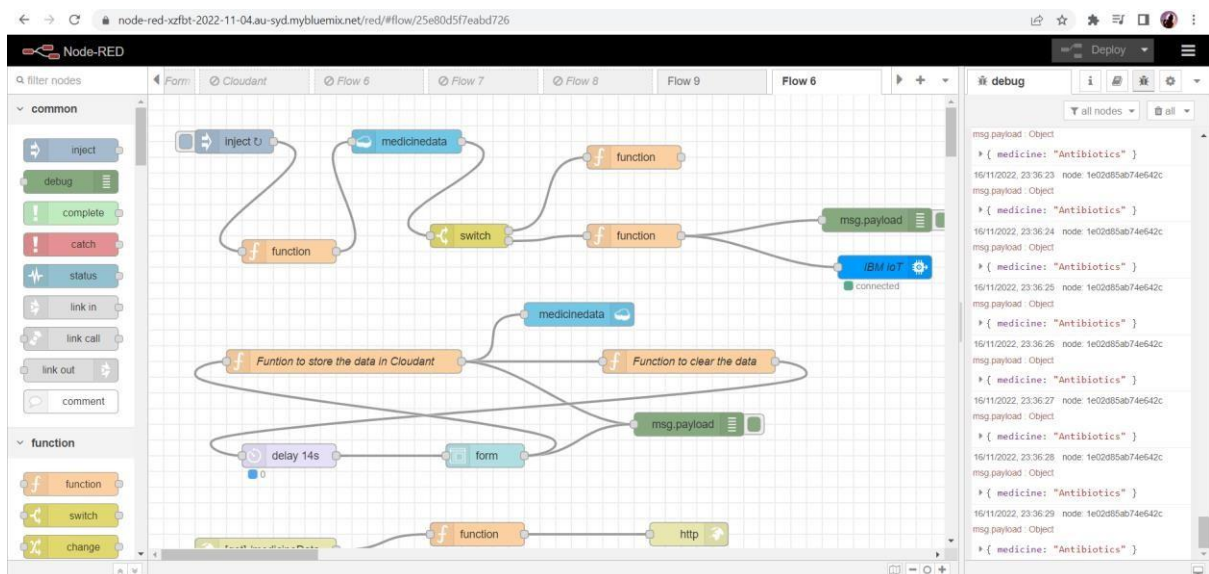
3. Store in Cloudant DB



4. Display Remainder with audio



5. Display in node-red



6. Remainder in Simulation

WOKWI

← → ↻ wokwi.com/projects/348198638815543891

SAVE SHARE Medicine Remainder Docs

PNT2022TMD50622.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 length) {
102   Serial.print("callback invoked for topic: ");
103   Serial.println(subscribetopic);
104   for (int i = 13; i < payloadlength-2; i++) {
105     //Serial.print((char)payload[i]);
106     data3 += (char)payload[i];
107   }
108   Serial.println("Medicine Name: "+ data3);
109   if(data3 != "")
110   {
111     lcd.init();
112     lcd.print(data3);
113     digitalWrite(LED,HIGH);
114     tone(buzz, 100, 1000);
115   }
116 }
```

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