

PROJECT DEVELOPMENT PHASE

Delivery of Sprint-2

Date	08 November 2022
Team ID	PNT2022TMID31072
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and notification

LOGINandNOTIFIACATIONoftheIoTdeviceinParent'sWebApplicationforgettinginformationaboutChild'sStatus.

LOGIN:-

Coding,Output,Screenshot

```
<!DOCTYPEhtml>
```

```
<html><head>
```

```
<metaname="viewport"content="width=device-width,initial-scale=1">
```

```
<title>LoginPage</title>
```

```
<style>Body{fontfamily:Calibri,Helvetica,  
    sansserif;background-color:#9FE2BF;
```

```
}
```

```
button{ backgroundcolor:#9FE2BF;
```

```
width:100%;          color:black;
```

```
padding:15px;    margin:10px0px;
border:none; cursor:pointer;
    }form{ border:
3pxsolid#f1f1f1;
    }
input[type=text],input[type=password]
{ width:100%; margin:
8px0;padding:12px20px; display:inline-block; border:
2pxwhite;box-sizing:border-box;
    }
button:hover
{opacity:0.7;
    }
.cancelbtn{ width:
auto;padding:10px
18px;margin:10px
5px;
    }
.container{ padding:
25px;backgroundcolor:#CCCCFF;
    }
</style></head>
```

```

<body>
  <center><h1>LoginForm</h1></center>
  <form>
    <divclass="container">
      <label>DeviceID/Number:</label>
      <inputtype="password"placeholder="EnterPassword"name="password"required>
      <label>E-Mail:</label>
      <inputtype="text"placeholder="EnterUsername"name="username"required>
      <label>Password:</label>
      <inputtype="password"placeholder="EnterPassword"name="password"required>
      <buttontype="submit">Login</button>
      <buttonclass="loginBtnloginBtn--facebook">LoginwithFacebook.</button>
      <buttonclass="loginBtnloginBtn--google">LoginwithGoogle.</button>
      <inputtype="checkbox"checked="checked">Rememberme
      <buttontype="button"class="cancelbtn">Cancel</butt on>Forgot<a href="#">password?</a>

    </div>
  </form>
</body>
</html> OUTPUT:

```

Login Form

Device ID/Number:

E-Mail :

hemadharshini2502@gmail.com

Password :

Login

Login with Facebook.

Login with Google.

☒ Remember me [Forgot password?](#)

NOTIFICATION:Coding,Output-Screenshot

```
#include<WiFi.h>#include<PubSubClient.h>#include<MQTT.h>
//-----credentialsofIBMAccount-----
#defineORG"45z3o2"//IBMORGANIZATIONID
#defineDEVICE_TYPE"ESP32_Controller"//DEVICETYPEMENTIONEDINIOTWATSON
PLATFORM#defineDEVICE_ID"bme2"//DEVICEIDMENTIONEDINIOTWATSONPLATFORM
#define
```

```

TOKEN"OKZ+q@JfPWDOd6wBTj">//Tok
enStringdata3;floatdist;

//-----customizetheabovevalue charserver[]=ORG
".messaging.internetofthings.ibmcloud.com";//servernamecharpublishtopic[]="ultrasonic/e
vt/Data/fmt/json";/*topicnameandtypeofeventperformandformatinwhichdatatobe
send*/charsubscribetopic[]="ultrasonic/cmd/test/fmt/String";/*cmd REPRESENTCommandtupeand
COMMANDISTESTOFFORMATSTRING*/ charauthMethod[]="use-token-auth";//authentication methodchartoken[]=TOKEN;char
clientid[]="d:"ORG":"DEVICE_TYPE":"DEVICE_ID";//CLIENTID
//
WiFiClientwifiClient;//creatinganinstanceforwificlient
PubSubClientclient(server,1883,callback,wifiClient);/*callingthepredefinedclientidby
passingparameterlikeserverid,portandwificredential*/intLED=4;inttrig=5;intecho=18;void
setup(){Serial.begin(115200);pinMode(trig,OUTPUT);pinMode(echo,INPUT);pinMode(LED,OUTPUT);
delay(10);Serial.println();wificonnect();mqttconnect();
}
voidloop()
{digitalWrite(trig,LOW);digital Write(trig,HIGH);delayMicrose
conds(10);digitalWrite(trig,LOW);floatdur=pulseIn(echo,HIG
H);floatdist=(dur*
0.0343)/2;Serial.print("distanc

```

```

eincm");
    Serial.println(dist);Publis
hData(dist);delay(1000);if
(!client.loop()){mqttconne ct();
    }
}
/*.....retrivingtocloud.....*/voidPublishData(floatdist){mqttconnect();//functi
oncallforconnectingtoibm

```

```

String object;if(dis
t<100)
{
    digitalWrite(LED,HIGH);
Serial.println("noobjectisnear");object="Nea
r";
    }
    else
{digitalWrite(LED,LOW);Serial.println("noobj ectfound");object="No";
    }
    String payload="{\"distance\":";payload
+=dist;payload
+=",\"\"object\":\":";payload+=object; payload+="\"}";

```

```

Serial.print("Sendingpayload:"); Serial.println(payload);
if(client.publish(publishtopic,(char*)payload.c_str())){
    Serial.println("Publishok");

}else{

    Serial.println("Publishfailed");
}}voidmqttconnect(){if(!client.connected()){
    Serial.print("Reconnectingclientto");
Serial.println(server);while(!client.connect(clientid,authMethod,token)){Serial.print(".");
    delay(500);
} initManagedDevice();
    Serial.println(); }voidwificonnect();//functiondefinitionforwificonnect{
Serial.println();
Serial.print("Connectingto");
    WiFi.begin("vivo1816","taetae95",6);//PASSINGTHEWIFICREDENTIALSTOESTABLISH
CONNECTIONwhile(WiFi.status()!=WL_CONNECTED){ delay(500);
    Serial.print(".");
}
Serial.println("");Serial.println("
WiFiconnected");Serial.println(

```

```

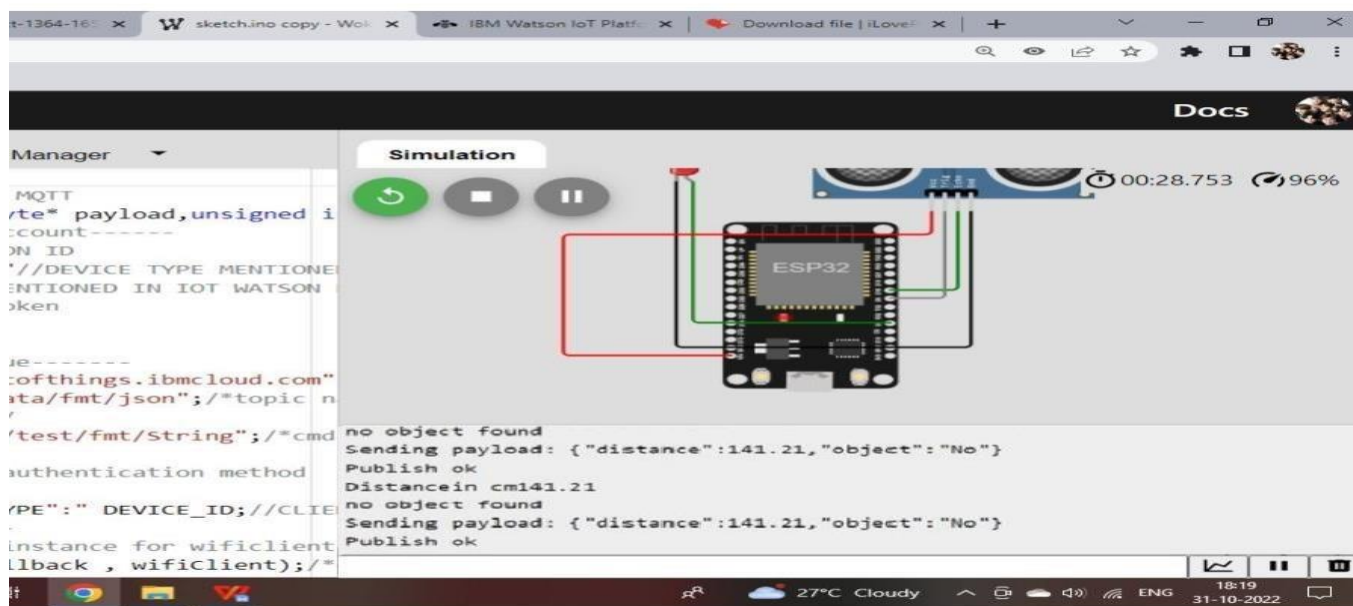
"IP
address");Serial.println(WiFi.lo
calIP()); }void
initManagedDevice(){if(client.subscribe(subscribetopic)){Serial.println(
(subscribetopic));
    Serial.println("subscribetocmdOK");
}else{
    Serial.println("subscribetocmdfailed");
}
}voidcallback(char*subscribetopic,byte*payload,unsignedintpayloadLength)
{
    Serial.print("callbackinvokedfortopic:");
    Serial.println(subscribetopic);for(inti=0; i<payloadLength;i++){
//Serial.print((char)payload[i]);data3+=(char)payload[i];

//Serial.println(data3);
//digitalWrite(LED,LOW);//}data3="";
}

```

OUTPUT:

WhenchildisnotdetectedwithinthesafezonewiththehelpofIoTdevice



Childsstatusarenotifiedtoparentsdeviceusingcloudservice

