Project Planning Phase

# Delivery Sprint 2

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| --- | --- |
| Date | 10 November 2022 |
| Team ID | PNT2022TMID108472 |
| Project Name | Project - 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{font- family:Calibri,Helvetica, sans-

serif;background-color:#9FE2BF;

}

button{

background-color:#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;background- color:#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<ahref="#">password?</a></div>

</form>

</body>

</html>

**Coding,Output-Screenshot** #include<WiFi.h>//libraryforwifi#include<PubSubClient.h>//libraryforMQTTvoidcallback(ch ar\*subscribetopic,byte\*payload,unsignedintpayloadlength);

//---------------credentialsofIBMAccount------

#defineORG"45z3o2"//IBMORGANIZATIONID #defineDEVICE\_TYPE"ESP32\_Controller"//DEVICETYPEMENTIONEDINIOTWATSON PLATFORM#defineDEVICE\_ID"bme2"//DEVICEIDMENTIONEDINIOTWATSONPLATEFORM

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

// customizetheabovevalue

charserver[]=ORG ".messaging.internetofthings.ibmcloud.com";//servernamecharpublishtopic[]="ultrasonic/e

vt/Data/fmt/json";/\*topicnameandtypeofeventperformandformatinwhichdatatobesend\*/charsubscribetopic[]="ultrasonic/cmd/test/f mt/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,LO W);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(){i f(!client.connected()){ **Serial**.print("Reconnectingclientto");

**Serial**.println(server);while(!!!client.connect(clientid,authMet hod,token)){**Serial**.print(".");

delay(500);

} initManagedDevice();

**Serial**.println();}}voidwificonnect()//functiondefenitionforwificonnect{ **Serial**.println();

**Serial**.print("Connectingto"); WiFi.begin("vivo1816","taetae95",6);//PASSINGTHEWIFICREDIDENTIALSTOESTABLISHCONNECTIONwhile(WiFi.status()!=WL\_CONNECTE D){

delay(500);

**Serial**.print(".");

}

**Serial**.println("");**Serial**.println(" WiFiconnected");**Serial**.println( "IP

address");**Serial**.println(WiFi.lo calIP());

}void initManagedDevice(){if(client.subsc ribe(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)paylo ad[i];

//Serial.println(data3);

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

}

# OUTPUT:

WhenchildisnotdetectedwithinthesafezonewiththehelpofIoTdevice



