Assignment-4

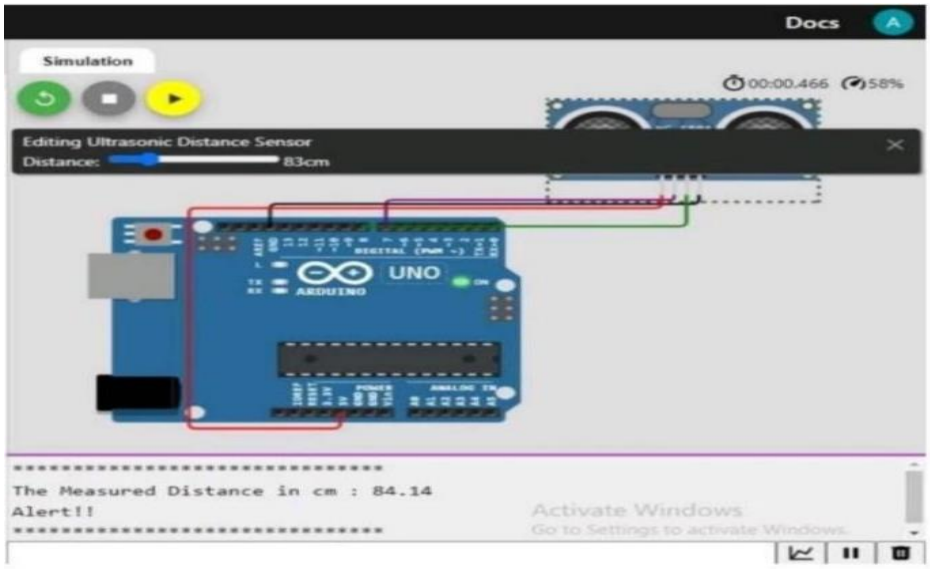
```
const int TRIG_PIN = 7 ;  const
int ECHO_PIN = 8;

 int MAX_DIST = 23200;

void setup() {



Pin Mode(TRIG_PIN, OUTPUT);  digital
Write(TRIG_PIN, LOW);

pinMode(ECHO_PIN, INPUT ) ;

Serial.begin(9600);
}
void loop() { unsigned
long t1; unsigned
long            t2;
unsigned  long
pulse_width;
float cm;  float
inches;
```

```
digitalWrite(TRIG_PIN,HIGH);
delayMicroseconds(10);
digitalWrite(TRIG_PIN,LOW);


(digitalRead( ECHO_PIN )==0 );


while (digitalRead(ECHO_PIN) == 1);
t2= micros ();    pulse_width = t2-t1;

cm=pulse_Width / 58 ;  inches = pulse_width/148.0;

if (pulse_width >MAX _ DIST ){
Serial.println("Out of range");
} else {
Serial.println("*******************************”);
Serial.print("The Measured Distance in cm: ");
Serial.println(cm);

if( cm < 100 ){
while(true){
Serial.println(“Alert!!”);
}
}
Serial.print(“*********************************”);
```

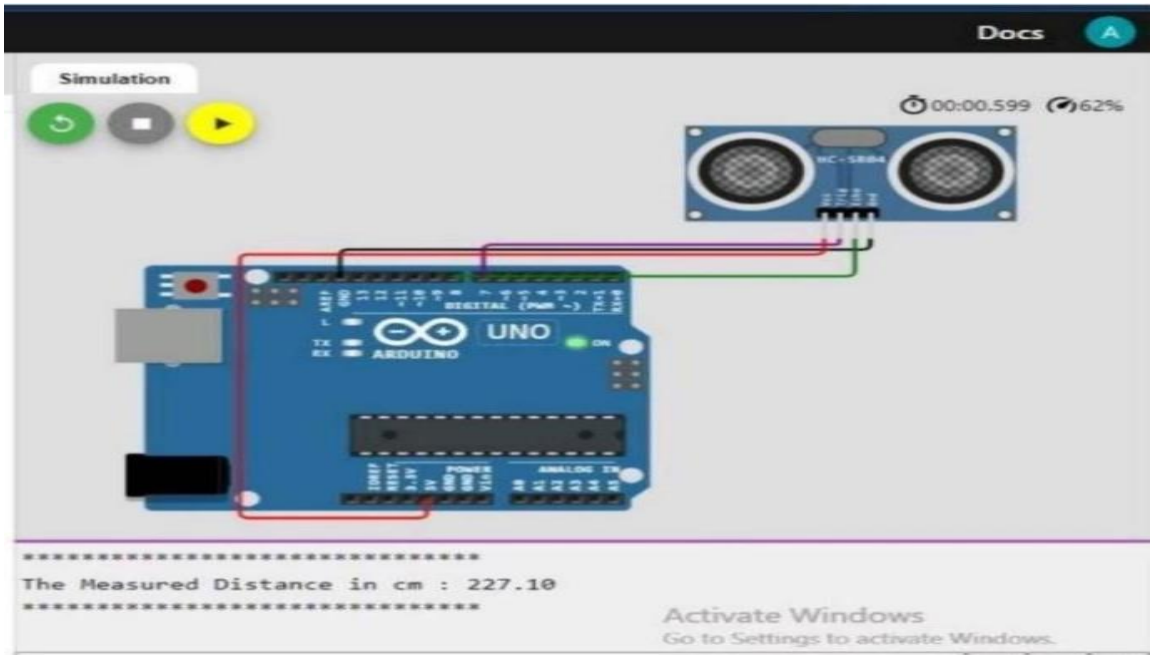
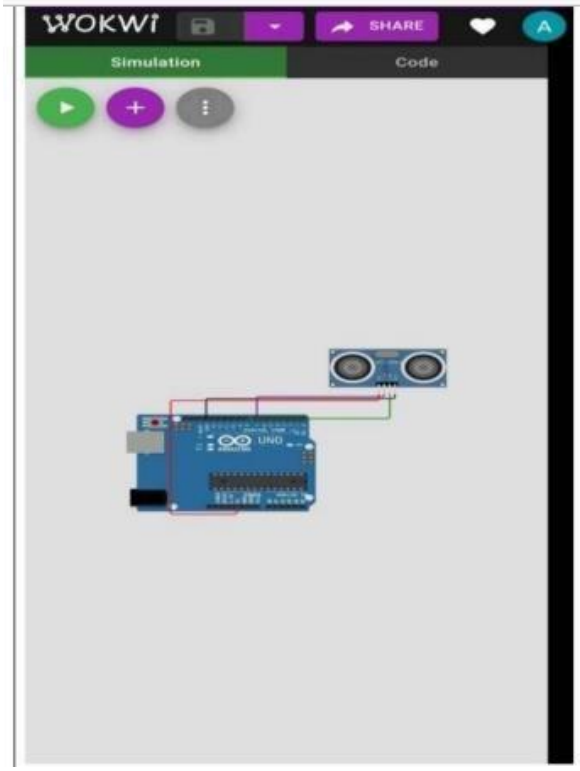
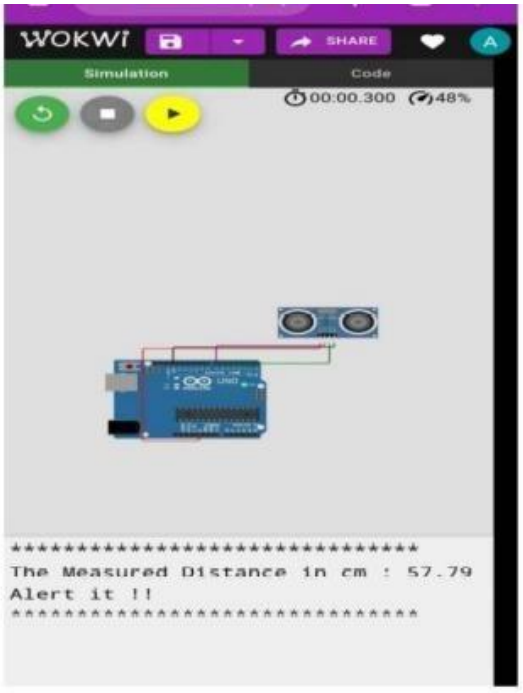
```
}


Delay(1000);
}
```

Output:

1.If the distance is less than 100 cm, it alerts.



2.If the distance is more than 100 cm, it won’t alert



3.Simulation and Code execution