Assignment 2

Rishabh Maheshwari

19BCY10145

Develop an "Automatic garage door opening system". Use an Ultrasonic sensor to detect if there is a vehicle in front of the garage. if any vehicle is detected open the garage door (rotate the servo motor) for some time and close it.

Code-

```
#include <Servo.h>
Servo s;

void setup()
{
   s.attach(3);
   pinMode(2, OUTPUT);
   pinMode(3, INPUT);
   Serial.begin(9600);
}

void loop()
{
   delayMicroseconds(10);
   digitalWrite(2, LOW);
   int dur = pulseIn(3, HIGH);
   int dis = (dur*0.0343)/2;

   if((dis <= 100) && (digitalRead(3)== HIGH ))
   {
      for(int i=0; i<181; i++)
      {
         s.write(i);
         delay(10);
      }
      delay(5000);
      for(int j=181; j>0; j--)
      {
         s.write(j);
         delay(10);
      }

   }
```

```
    Serial.print("Distance in cms ");
    Serial.println(dis);
}
```