## A.Koding Arduino Ide

```
#include <ESP8266WiFi.h>
#include <ESP8266HTTPClient.h>
#include <WiFiClient.h>

#include <LCD_I2C.h>
#include <Servo.h>
#include <HX711.h>

#define dt D4
#define sck D3

#define SOUND_VELOCITY 0.034
#define trigPinTop D5
#define echoPinTop D6
#define trigPinCap D7
#define echoPinCap D8

LCD_I2C lcd(0x27, 16, 2);
Servo servo;
HX711 scale;

unsigned int cash, cap, distance, value;
const char* serverName = "http:// 192.168.51.2/bank/public/sensor";
const char* ssid = "Oppo";
const char* password = "09876543";

void setup() {
  Serial.begin(115200);
  lcd.begin();
  lcd.backlight();
  WiFi.begin(ssid, password);
  while (WiFi.status() != WL_CONNECTED) {
   delay(1000);
   lcd.clear();
   lcd.setCursor(0, 0);
   lcd.print("Connecting to");
   lcd.setCursor(0, 1);
   lcd.print(ssid);
  }
  servo.attach(D0);
  scale.begin(dt, sck);
```

```cpp
  scale.set_scale(184.3369565217391);
  scale.tare();
  pinMode(trigPinCap, OUTPUT);
  pinMode(echoPinCap, INPUT);
  pinMode(trigPinTop, OUTPUT);
  pinMode(echoPinTop, INPUT);
  lcd.clear();
  lcd.setCursor(0, 0);
  lcd.print("Connected");
  lcd.setCursor(0, 1);
  lcd.print(WiFi.localIP());
}

void loop() {
  if (getServo()) {
    distance = ultrasonicCap();
    Serial.println(round(distance));
    cap = map(round(distance), 27, 5, 0, 100);
    value = scale.get_units(5);
    cash = ((value < 0) ? 0 : value / 1000.0) * 5000;
    lcd.clear();
    lcd.setCursor(0, 0);
    lcd.print((String)value + "gram (" + (String)cap + "%)");
    lcd.setCursor(0, 1);
    lcd.print("Rp. " + (String)cash + ",-");
    dataSet((String)value, (String)cap, (String)cash);
  } else {
    Serial.println("Tutup Sampah > Terbuka");
  }
  delay(200);
}

boolean getServo() {
  if (ultrasonicTop() <= 30) {
    servo.write(0);  // Membuka penutup
    return false;
  } else {
    servo.write(180);  // Mwnutup penutup
    return true;
  }
}

void dataSet(String berat, String kapasitas, String cash) {
  WiFiClient client;
  HTTPClient http;
  http.begin(client, serverName);
```

```
  http.addHeader("Content-Type", "application/x-www-form-urlencoded");
   String httpRequestData = "berat=" + berat + "&kapasitas=" + kapasitas +
"&cash=" + cash;
  int httpResponseCode = http.POST(httpRequestData);
  Serial.print("HTTP Response code: ");
  Serial.println(httpResponseCode);
  http.end();
}

float ultrasonicCap() {
  digitalWrite(trigPinCap, LOW);
  delayMicroseconds(2);
  digitalWrite(trigPinCap, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPinCap, LOW);
  long duration = pulseIn(echoPinCap, HIGH);
  float distanceCm = duration * SOUND_VELOCITY / 2;
  return distanceCm;
}

float ultrasonicTop() {
  digitalWrite(trigPinTop, LOW);
  delayMicroseconds(2);
  digitalWrite(trigPinTop, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPinTop, LOW);
  long duration = pulseIn(echoPinTop, HIGH);
  float distanceCm = duration * SOUND_VELOCITY / 2;
  return distanceCm;
}
```