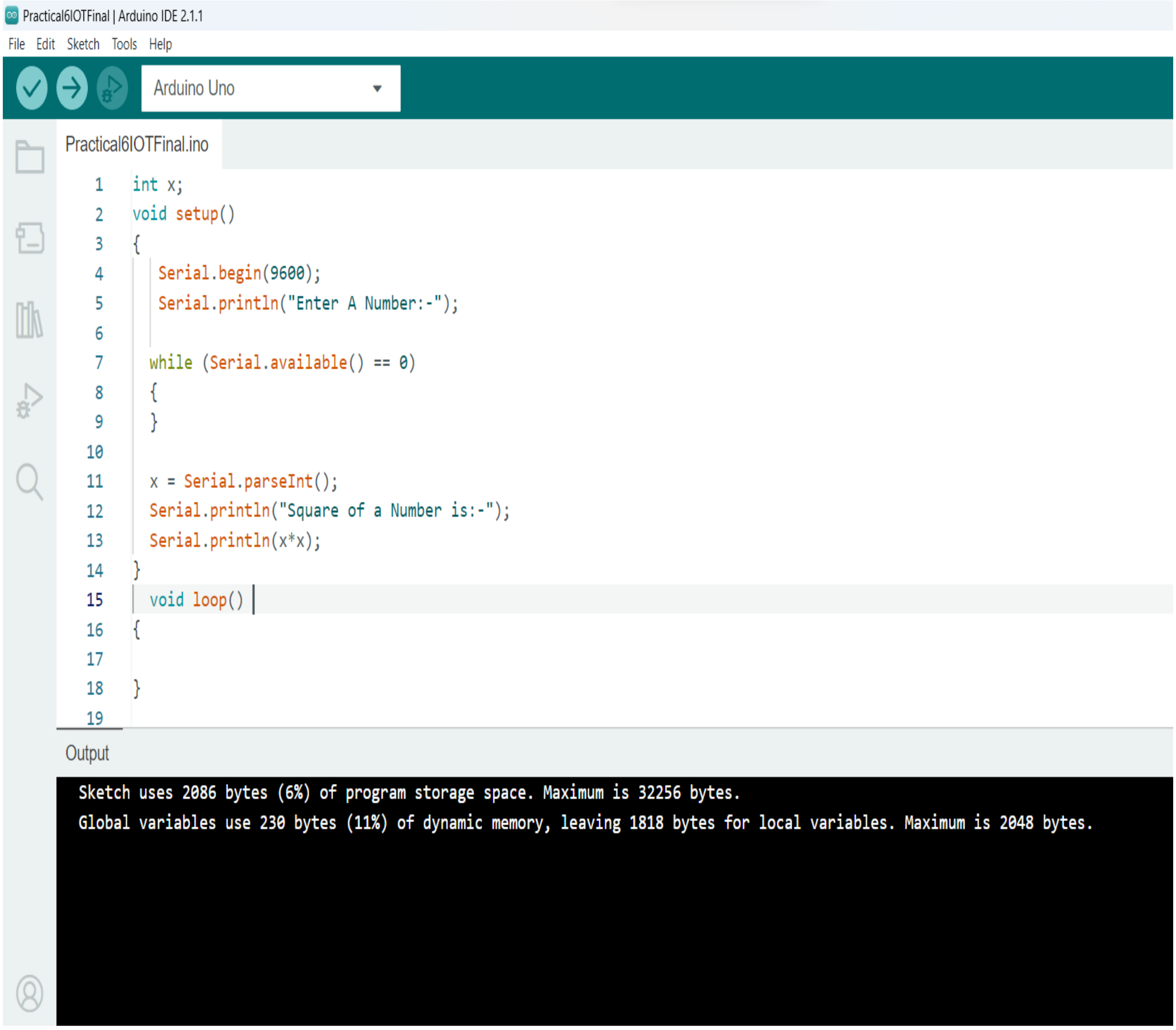
PRACTICAL 6

```
int x;
void setup()
{
   Serial.begin(9600);
   Serial.println("Enter A Number:-");

  while (Serial.available() == 0)
  {
  }

  x = Serial.parseInt();
  Serial.println("Square of a Number is:-");
  Serial.println(x*x);
}
  void loop()
{

}
```

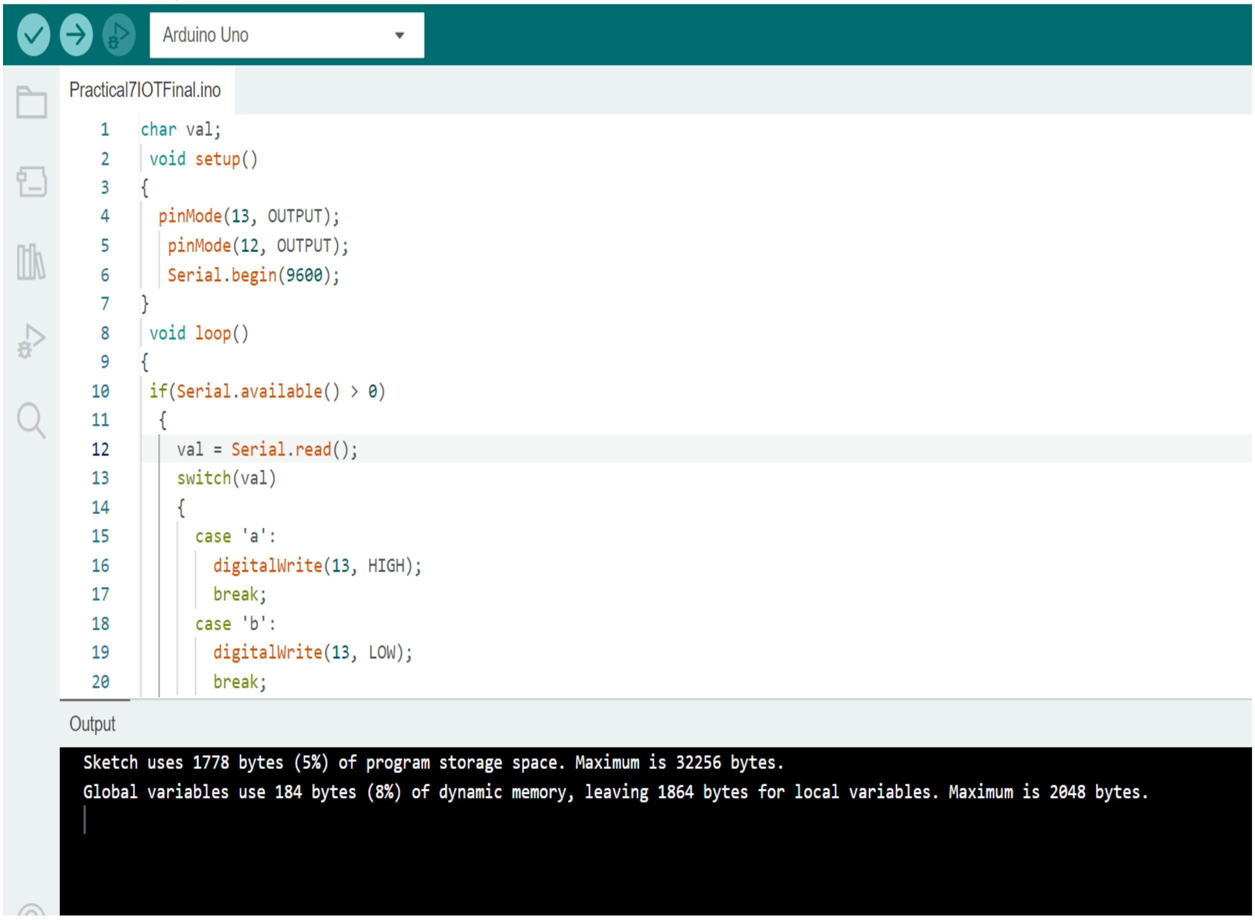

Practical6IOTFinal | Arduino IDE 2.1.1
File Edit Sketch Tools Help
Arduino Uno
Practical6IOTFinal.ino
Output

```
int x;
void setup()
{
   Serial.begin(9600);
   Serial.println("Enter A Number:-");

  while (Serial.available() == 0)
  {
  }

  x = Serial.parseInt();
  Serial.println("Square of a Number is:-");
  Serial.println(x*x);
}
  void loop()
{

}
```

```
Sketch uses 2086 bytes (6%) of program storage space. Maximum is 32256 bytes.
Global variables use 230 bytes (11%) of dynamic memory, leaving 1818 bytes for local variables. Maximum is 2048 bytes.
```

PRACTICAL 7

```
char val;
 void setup()
{
  pinMode(13, OUTPUT);
   pinMode(12, OUTPUT);
   Serial.begin(9600);
}
 void loop()
{
 if(Serial.available() > 0)
  {
    val = Serial.read();

    switch(val)
    {
      case 'a':
        digitalWrite(13, HIGH);
        break;
      case 'b':
        digitalWrite(13, LOW);
        break;
    }
  }
}
```

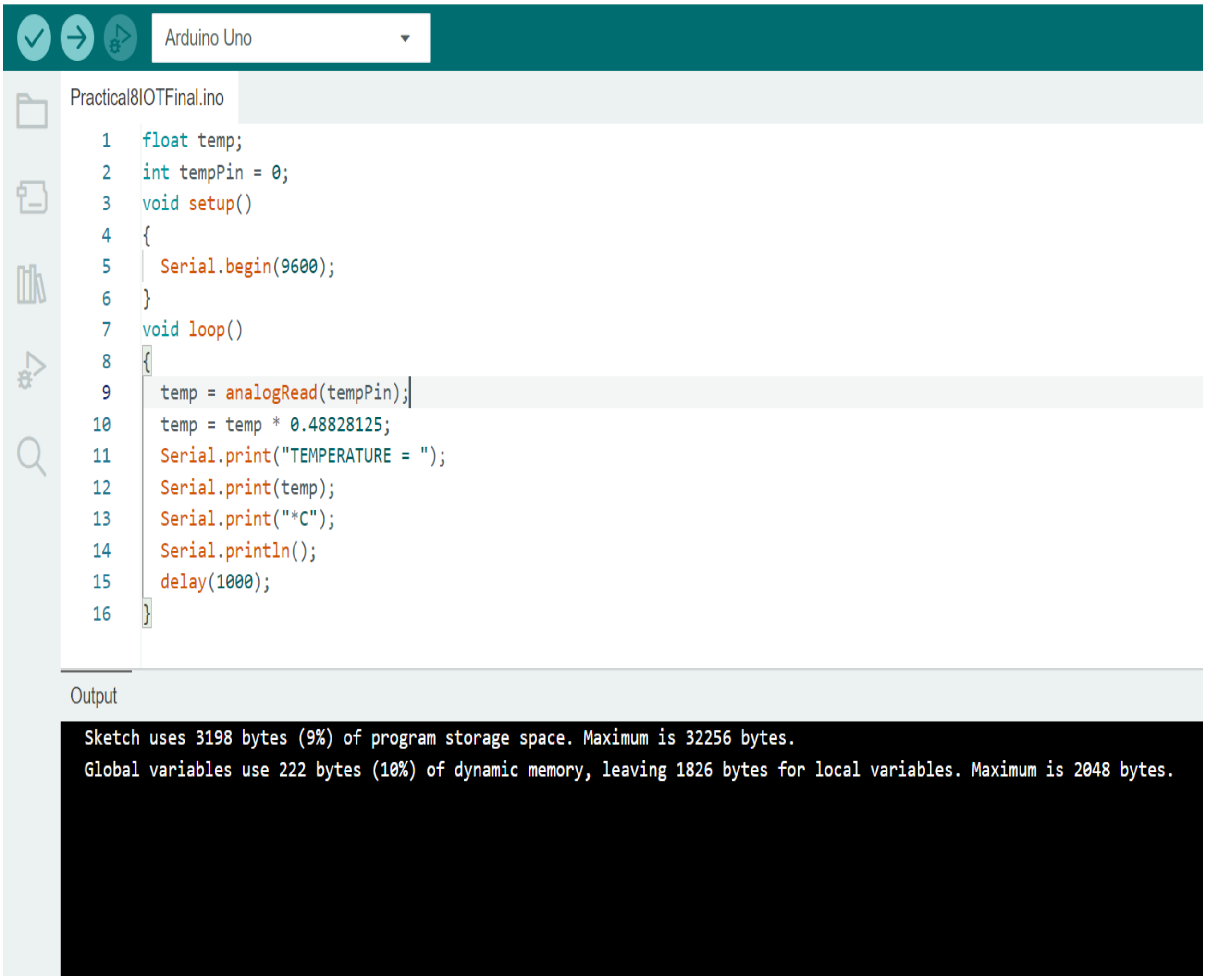


```
char val;
 void setup()
{
  pinMode(13, OUTPUT);
   pinMode(12, OUTPUT);
   Serial.begin(9600);
}
 void loop()
{
 if(Serial.available() > 0)
  {
    val = Serial.read();
    switch(val)
    {
      case 'a':
        digitalWrite(13, HIGH);
        break;
      case 'b':
        digitalWrite(13, LOW);
        break;
```

```
Sketch uses 1778 bytes (5%) of program storage space. Maximum is 32256 bytes.
Global variables use 184 bytes (8%) of dynamic memory, leaving 1864 bytes for local variables. Maximum is 2048 bytes.
```

PRACTICAL 8

```
float temp;
int tempPin = 0;
void setup()
{
  Serial.begin(9600);
}
void loop()
{
  temp = analogRead(tempPin);
  temp = temp * 0.48828125;
  Serial.print("TEMPERATURE = ");
  Serial.print(temp);
  Serial.print("*C");
  Serial.println();
  delay(1000);
}
```

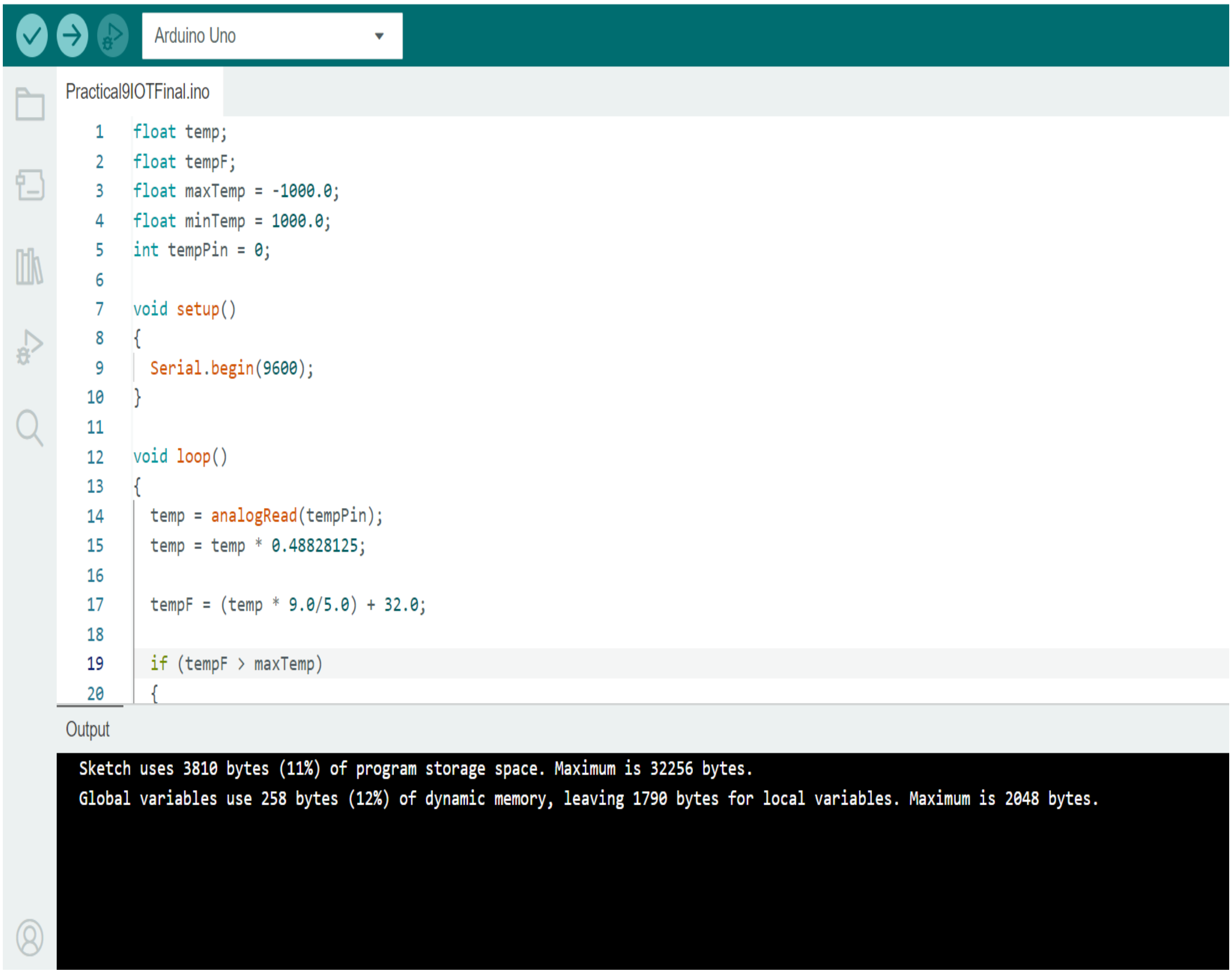


```
float temp;
int tempPin = 0;
void setup()
{
  Serial.begin(9600);
}
void loop()
{
  temp = analogRead(tempPin);
  temp = temp * 0.48828125;
  Serial.print("TEMPERATURE = ");
  Serial.print(temp);
  Serial.print("*C");
  Serial.println();
  delay(1000);
}
```

```
Sketch uses 3198 bytes (9%) of program storage space. Maximum is 32256 bytes.
Global variables use 222 bytes (10%) of dynamic memory, leaving 1826 bytes for local variables. Maximum is 2048 bytes.
```

PRACTICAL 9

```
float temp;
float tempF;
float maxTemp = -1000.0;
float minTemp = 1000.0;
int tempPin = 0;

void setup()
{
  Serial.begin(9600);
}

void loop()
{
  temp = analogRead(tempPin);
  temp = temp * 0.48828125;

  tempF = (temp * 9.0/5.0) + 32.0;

  if (tempF > maxTemp)
  {
    maxTemp = tempF;
  }
  if (tempF < minTemp)
  {
    minTemp = tempF;
  }

  Serial.print("TEMPERATURE = ");
  Serial.print(temp);
  Serial.print("*C / ");
  Serial.print(tempF);
  Serial.print("*F / Max: ");
  Serial.print(maxTemp);
  Serial.print("*F / Min: ");
  Serial.print(minTemp);
  Serial.println();
  delay(1000);
}
```



```
float temp;
float tempF;
float maxTemp = -1000.0;
float minTemp = 1000.0;
int tempPin = 0;

void setup()
{
  Serial.begin(9600);
}

void loop()
{
  temp = analogRead(tempPin);
  temp = temp * 0.48828125;

  tempF = (temp * 9.0/5.0) + 32.0;

  if (tempF > maxTemp)
  {
```

```
Sketch uses 3810 bytes (11%) of program storage space. Maximum is 32256 bytes.
Global variables use 258 bytes (12%) of dynamic memory, leaving 1790 bytes for local variables. Maximum is 2048 bytes.
```