

## AREA

### AIM:

To create function overloading using the area of the shapes.

### ALGORITHM:

- Include the input–output header file.
- Define an overloaded function Area(int, int) to calculate the area of a rectangle.
- Define an overloaded function Area(int) to calculate the area of a square.
- Define an overloaded function Area(double) to calculate the area of a circle.
- Inside each function, compute the area using the appropriate formula.
- Display the calculated area for each shape.
- In main(), call Area(Length, Breadth) to find the area of the rectangle.
- Call Area(Side) to find the area of the square.
- Call Area(Radius) to find the area of the circle.

### PROGRAM:

```
/*
 * Program to calculate area of different shapes using function overloading in
 C++
 * Author   : MUTHUGANESH S
 * Date      : 24/1/2026
 * Filename: Area.cpp
 * retval    : void
 */

#include <iostream>
using namespace std;

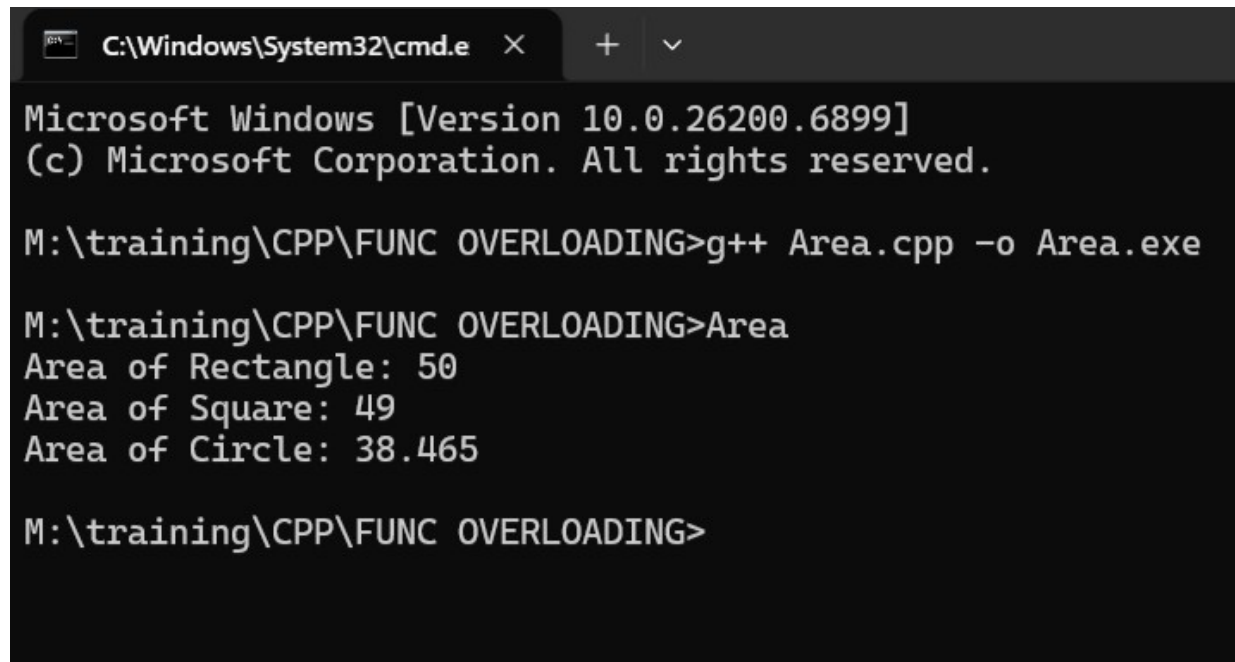
// Function to calculate area of rectangle
void Area(int Length, int Breadth) {
    cout<< "Area of Rectangle: " << Length * Breadth << endl;
}

// Function to calculate area of Square
void Area(int Side) {
    cout<< "Area of Square: " << Side * Side << endl;
}

// Function to calculate area of Circle
void Area(double Radius) {
    cout<< "Area of Circle: " << 3.14 * Radius * Radius << endl;
}
```

```
int main() {  
  
    Area(10, 5);        // Rectangle  
    Area(7);            // Square  
    Area(3.5);          // Circle  
  
    return 0;  
}
```

## OUTPUT:



The screenshot shows a Windows command prompt window with the title bar "C:\Windows\System32\cmd.e". The window displays the following text:

```
Microsoft Windows [Version 10.0.26200.6899]  
(c) Microsoft Corporation. All rights reserved.  
  
M:\training\CPP\FUNC OVERLOADING>g++ Area.cpp -o Area.exe  
  
M:\training\CPP\FUNC OVERLOADING>Area  
Area of Rectangle: 50  
Area of Square: 49  
Area of Circle: 38.465  
  
M:\training\CPP\FUNC OVERLOADING>
```