**C program** that calculates the area of various geometric shapes

#include <stdio.h>

#include <math.h>

int main() {

int choice;

float area;

printf("Choose a shape to calculate its area:\n");

printf("1. Circle\n");

printf("2. Triangle\n");

printf("3. Rectangle\n");

printf("4. Square\n");

printf("5. Parallelogram\n");

printf("Enter your choice (1-5): ");

scanf("%d", &choice);

switch (choice) {

case 1: {

float radius;

printf("Enter radius of the circle: ");

scanf("%f", &radius);

area = 3.14159 \* radius \* radius;

printf("Area of Circle = %.2f\n", area);

break;

}

case 2: {

float base, height;

printf("Enter base and height of the triangle: ");

scanf("%f %f", &base, &height);

area = 0.5 \* base \* height;

printf("Area of Triangle = %.2f\n", area);

break;

}

case 3: {

float length, breadth;

printf("Enter length and breadth of the rectangle: ");

scanf("%f %f", &length, &breadth);

area = length \* breadth;

printf("Area of Rectangle = %.2f\n", area);

break;

}

case 4: {

float side;

printf("Enter side of the square: ");

scanf("%f", &side);

area = side \* side;

printf("Area of Square = %.2f\n", area);

break;

}

case 5: {

float base, height;

printf("Enter base and height of the parallelogram: ");

scanf("%f %f", &base, &height);

area = base \* height;

printf("Area of Parallelogram = %.2f\n", area);

break;

}

default:

printf("Invalid choice. Please run the program again.\n");

}

return 0;

}

**Output:**

Choose a shape to calculate its area:

1. Circle

2. Triangle

3. Rectangle

4. Square

5. Parallelogram

Enter your choice (1-5): 4

Enter side of the square: 6

Area of Square = 36.00

=== Code Execution Successful ===