



C++ Assignments | Functions | Week 4

Q1 : Write a function to print squares of first n natural numbers, taking n as argument to the function

A screenshot of a Visual Studio Code editor window. The Explorer sidebar on the left shows a project structure with a 'function.cpp' file. The main editor area displays the code for 'function.cpp'. The code includes a function 'square' that takes an integer 'x' and returns its square, and a 'main' function that prompts the user for a number 'n' and prints the squares of the first 'n' natural numbers. The output window at the bottom shows the execution results, including the prompt 'square of n numbers:5' and the output '1 4 9 16 25'.

```
1 #include<iostream>
2 using namespace std;
3 int square(int x){
4     for(int i=1;i<=x;i++){
5         cout<<i*i<<endl;
6     }
7     return x;
8 }
9
10 int main(){
11     int n;
12     cout<<" square of n numbers:";
13     cin>>n;
14     square(n);
15 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

sushantshekharsushants-Air function.cpp % cd "/Users/sushantshekhhar/Desktop/...",sushant coding/c++/.vscode/function.cpp/" && g++ squireafn.cpp -o squireafn
square of n numbers:5
1
4
9
16
25

Ln 13, Col 12 Spaces: 4 UTF-8 LF {} C++ Go Live Mac Prettier

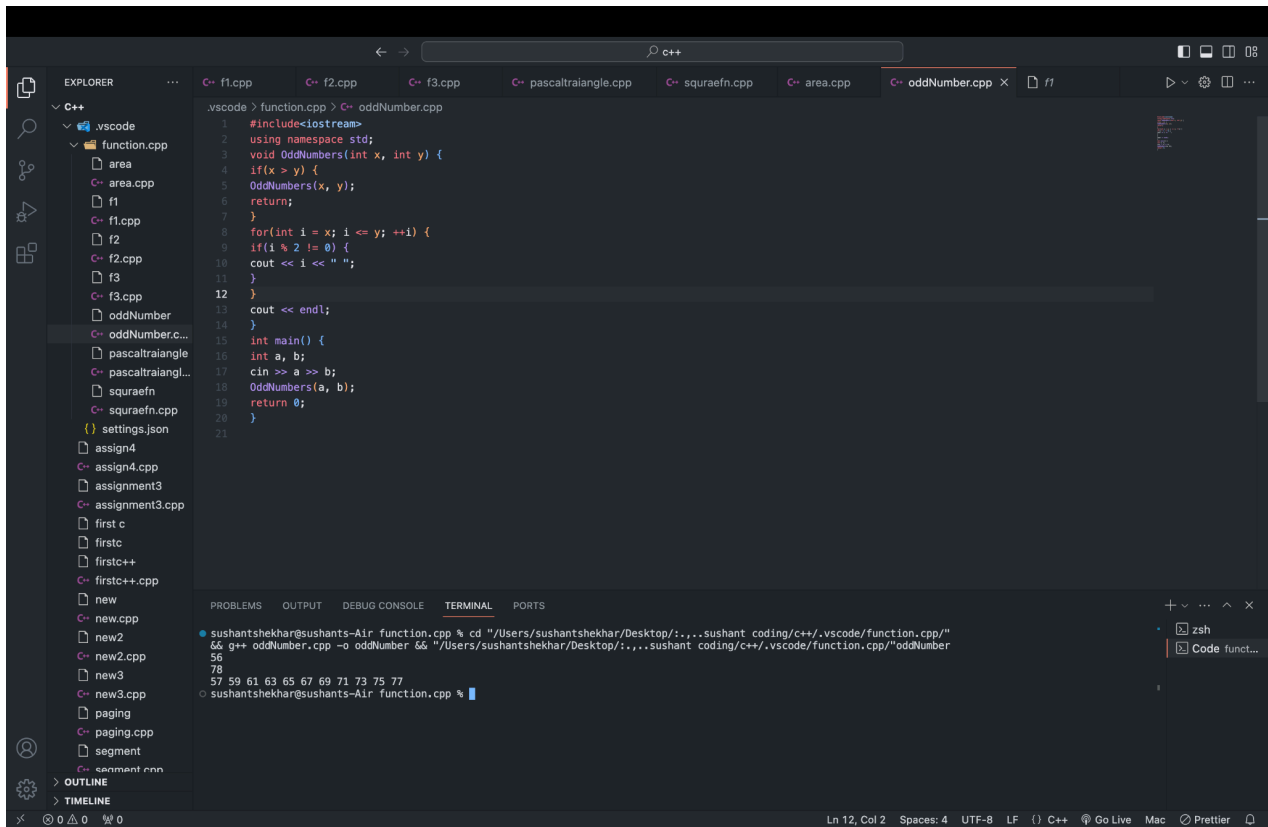
Q2 : Write a function that takes the radius of a circle as an argument and returns its area

```
1 #include<iostream>
2 using namespace std;
3 float area(int radius){
4     float area=3.14*radius*radius;
5     cout<<area<<endl;
6 }
7 return radius;
8 }
9 int main(){
10     int radius;
11     cout<<"radius of circle is:";
12     cin>>radius;
13     area(radius);
14 }
```

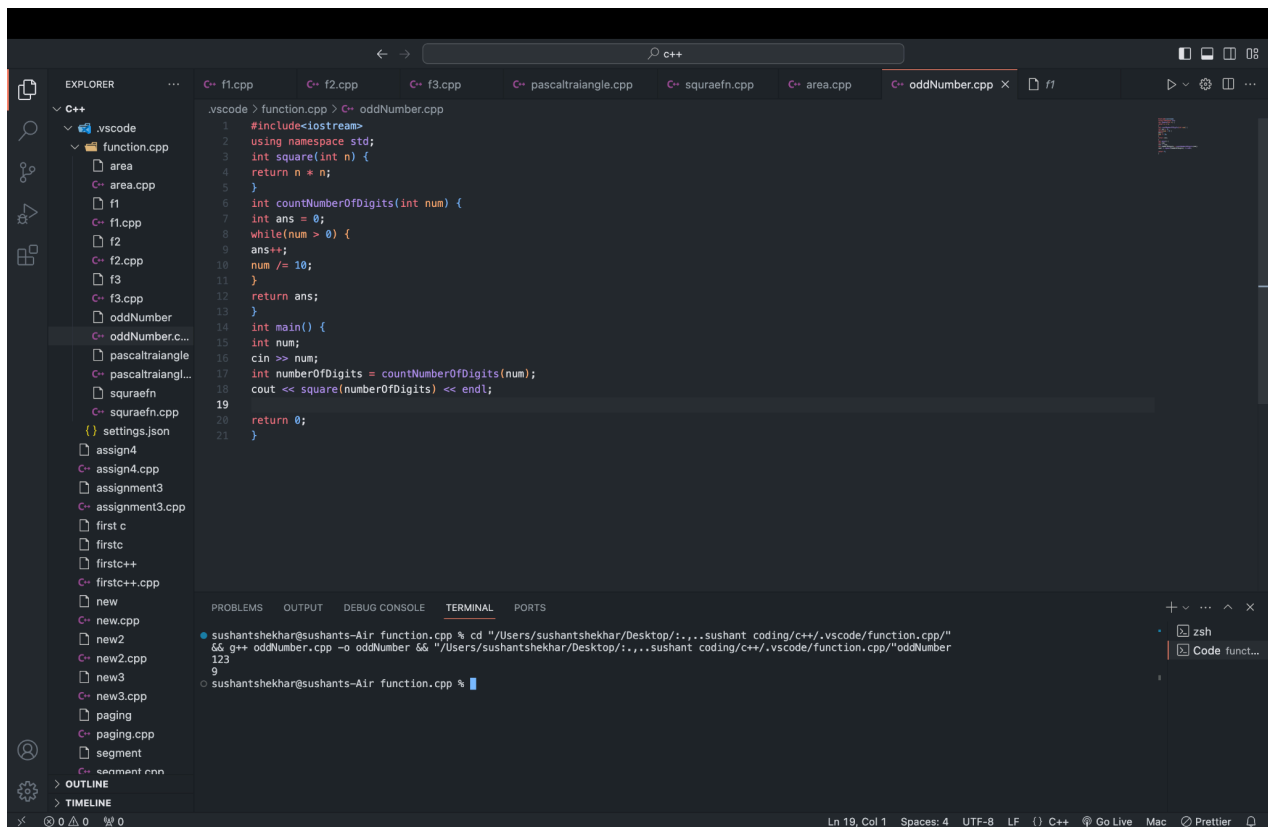
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

sushantshekar@sushants-Air function.cpp % cd "/Users/sushantshekar/Desktop/....sushant coding/c++/.vscode/function.cpp/"
66 g++ area.cpp -o area 66 "/Users/sushantshekar/Desktop/....sushant coding/c++/.vscode/function.cpp/"area
radius of circle is:5
78.5
sushantshekar@sushants-Air function.cpp %

. Q3: Given two numbers a and b, write a function to print all odd numbers between them



. Q4: Write a function to count the number of digits in a number and then print the square of this number.



Q5: The minimum number of functions present in any C++ program is:

1. 0
2. 1
3. 2
4. Infinite

Ans:- there is minimum one function in a program of c++ i.e main function.

Q6: State True and False:

1. A function may be called more than once from any other function .

Ans:- true

2. It is necessary for a function to return some value.

Ans:- false because in void function there is no necessary need of return type.

Q7: Explore:

Can the same function name be used for different functions without any conflict?

Ans:- **yes, if the arguments are different of number and datatype.** When you call a function with a specific name, the compiler determines which version of the function to execute based on the arguments you provide. And select the appropriate one.