CSE 1112

Title: Functions in C.

Objective:

The main objectives of this lab are to

- Addition using function
- Prime number using function

Theory:

A function is a block of code that performs a specific task.

There are two types of function in C programming:

- Standard library functions

- User-defined functions

Standard library functions

The standard library functions are built-in functions in C programming.

These functions are defined in header files. For example,

- The printf() is a standard library function to send formatted output to the screen (display output on the screen). This function is defined in the stdio.h header file.
  Hence, to use the printf() function, we need to include the stdio.h header file using #include <stdio.h>.
- The sqrt() function calculates the square root of a number. The function is defined in the math.h header file.

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User-defined function

We can also create functions as per your need. Such functions created by the user are known as user-defined functions.

Source Code:

```
1. /// Addition using Function.
2.
3. #include<stdio.h>
4.
5. int add(int x, int y)
6. {
7.     return(x+y);
8. }
9. int main()
10.     {
11.         int a, b;
12.
13.         printf("Enter 2 integer numbers\n");
14.         scanf("%d%d", &a, &b);
15.
16.         //function call add(a, b);
17.         printf("%d + %d = %d\n", a, b, add(a, b));
18.
19.         printf("\n\n");
20.
21.     /// Prime number using function
22.
23.         int checkPrime(int number)
24.         {
25.             int count = 0;
26.
27.             for(int i=2; i<=number/2; i++)
28.             {
29.                 if(number%i == 0)
30.                 {
31.                     count=1;
32.                     break;
```

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```
33.                          }
34.                     }
35.
36.                if(number == 1) count = 1;
37.
38.                return count;
39.           }
40.
41.           int number ;
42.
43.           printf("Enter number: ");
44.           scanf("%d",&number);
45.
46.           if(checkPrime(number) == 0)
47.                printf("%d is a prime number.", number);
48.           else
49.                printf("%d is not a prime number.", number);
50.
51.           return 0;
52.      }
```

Output:

Discussion and Conclusion:

In the above program, there is 2 sections. In the first section I take input of 2 numbers from the user and display the addition of those 2 numbers by using of Function. After that it takes a number from the user and display it is prime or not.