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Section: 41-J2

Assessment – 02

Date: 07.09.2024

Question - 01: ***Write a C program that prints all prime numbers between 1 and 100. Use a for loop to check each number and print only those that are prime.***

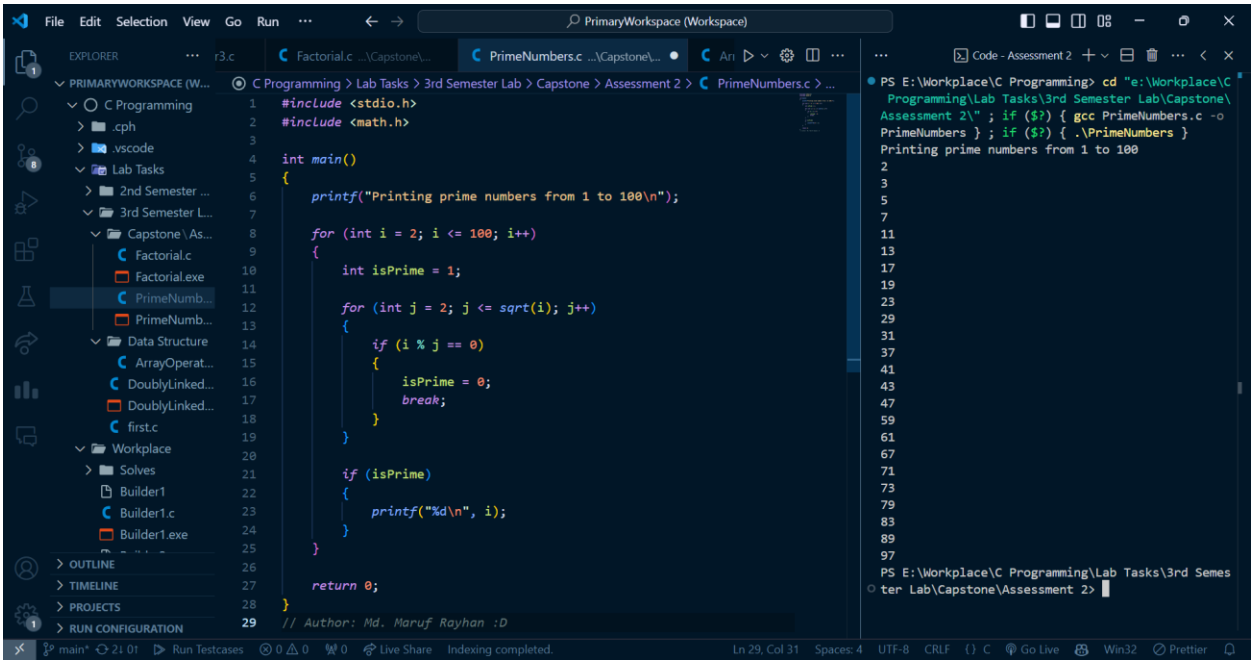
Code:

```
#include <stdio.h>

#include <math.h>


int main()

{

   printf("Printing prime numbers from 1 to 100\n");


   for (int i = 2; i <= 100; i++)

   {

      int isPrime = 1;

      for (int j = 2; j <= sqrt(i); j++)

      {

         if (i % j == 0)

         {

            isPrime = 0;

            break;

         }

      }

      if (isPrime)

      {

         printf("%d\n", i);

      }

   }

   return 0;
```

}

// Author: Md. Maruf Rayhan :D

Attachments:



Question - 02: *Write a C program that calculates the factorial of a given number n using a while loop. The program should prompt the user to enter a positive integer and then display the factorial of that number.*

Code:

```
#include <stdio.h>


int main()

{

   int n;

   printf("Enter the number to find the factorial: ");
```

```
    scanf("%d", &n);
    int factorial = 1, i = 1;
    while (i <= n)
    {
        factorial *= i;
        i++;
    }
    printf("Factorial of %d is %d\n", n, factorial);
    return 0;
}
// Author: Md. Maruf Rayhan :D
```

Attachments: