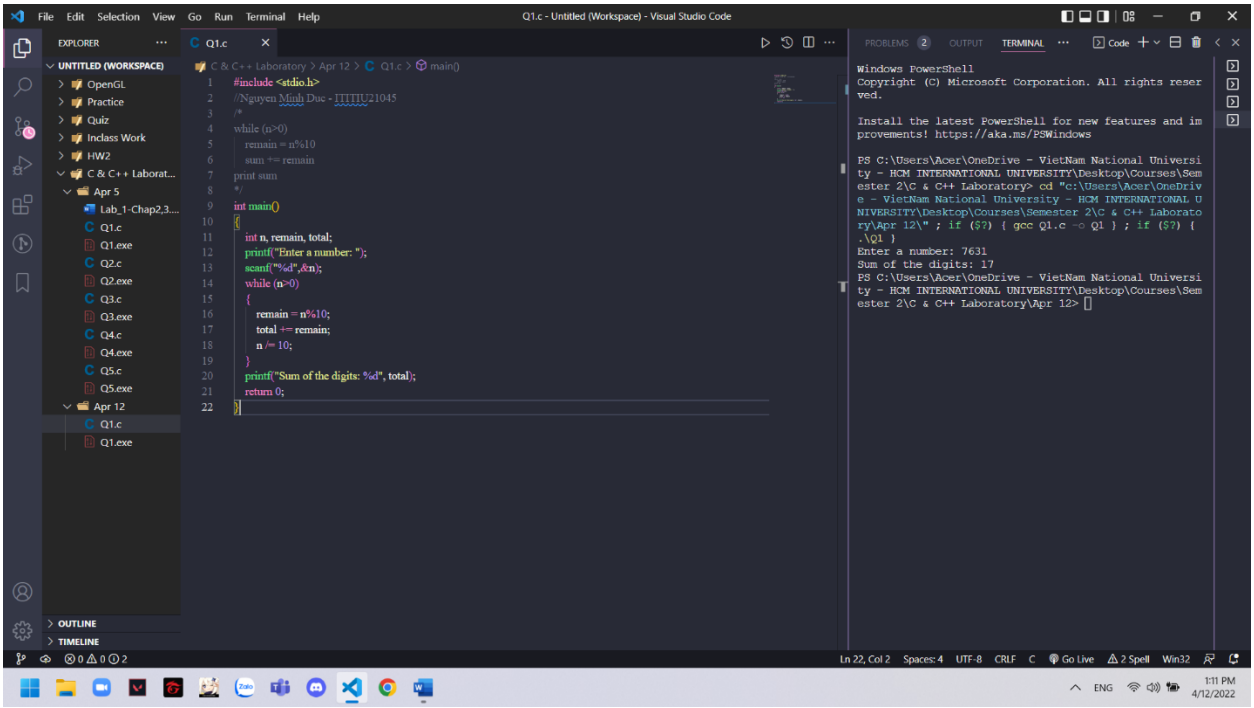
NGUYỄN MINH ĐỨC – ITITIU21045

Q1:

```c
#include <stdio.h>
//Nguyen Minh Duc - ITITIU21045
/*
while (n>0)
    remain = n%10
    sum += remain
print sum
*/
int main()
{
    int n, remain, total;
    printf("Enter a number: ");
    scanf("%d",&n);
    while (n>0)
    {
        remain = n%10;
        total += remain;
        n /= 10;
    }
    printf("Sum of the digits: %d", total);
    return 0;
}
```



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Q2:

```c
#include <stdio.h>
//Nguyen Minh Duc - ITITIU21045
/*
Enter the number
flag = 1
for i = 2 to number
    while (number % i ==0)
        if (!flag) print "*"
        print i
        number = number/i
        flag = 0
*/
void product_prime(int);

void product_prime(int n)
{
    int oriNum, flag = 1;
    oriNum = n;
    printf("%d = ",oriNum);
    for (int i = 2; i <= n; i++)
    {
        while (n % i == 0)
        {
        if (!flag)
            printf("*");
        printf("%d",i);
        n /= i;
        flag = 0;
        }
    }
}
int main()
{
    int a;
    printf("Enter a number: ");
    scanf("%d",&a);
    product_prime(a);
    return 0;
}
```

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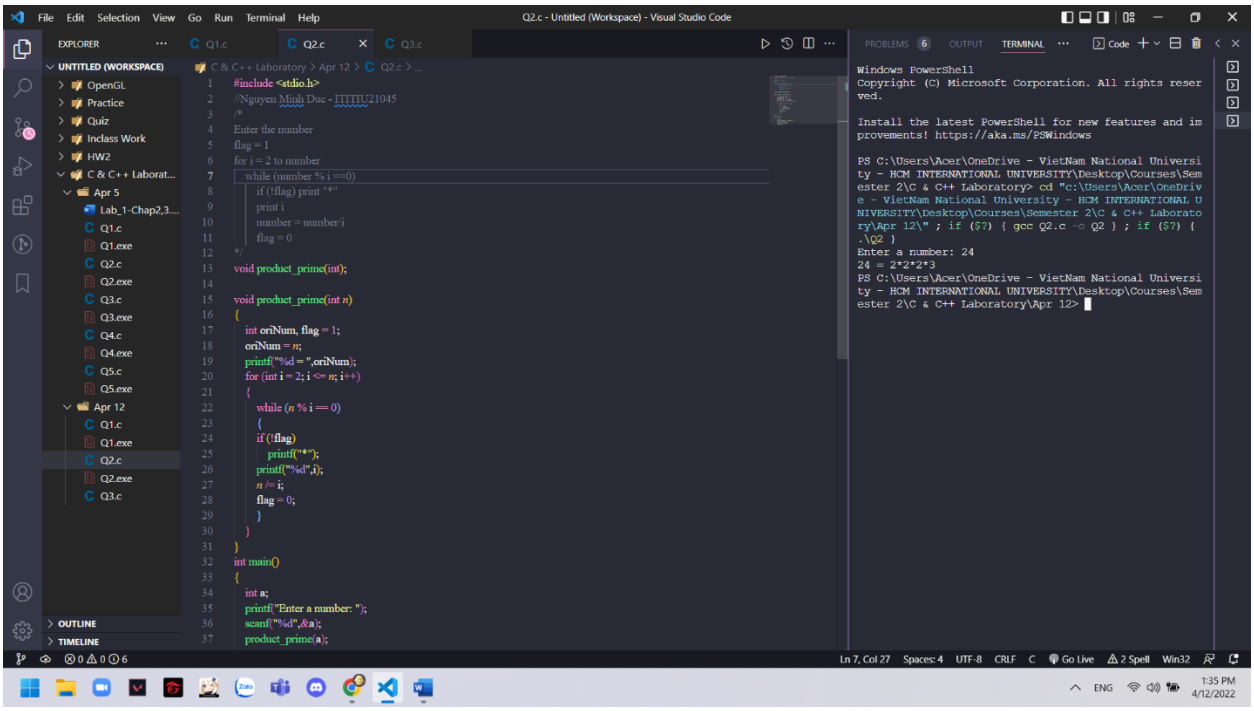

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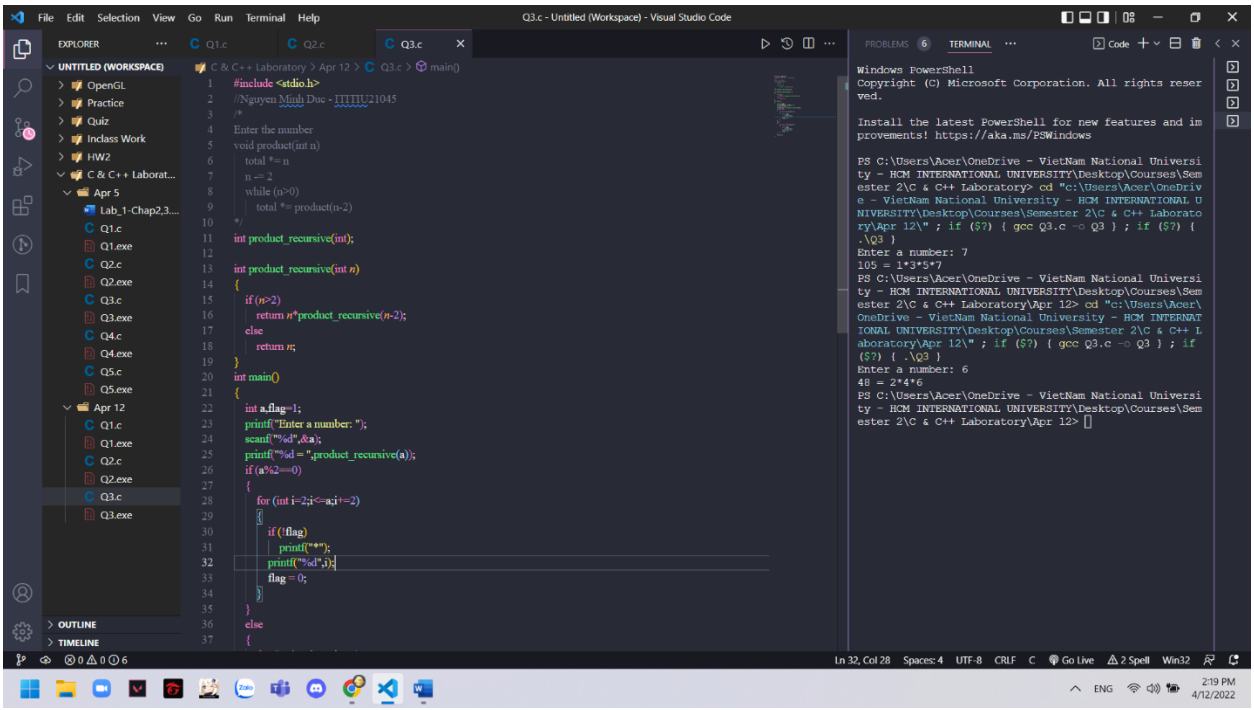
Q3:

```c
#include <stdio.h>
//Nguyen Minh Duc - ITITIU21045
/*
Enter the number
void product(int n)
    total *= n
    n -= 2
    while (n>0)
        total *= product(n-2)
*/
int product_recursive(int);

int product_recursive(int n)
{
    if (n>2)
        return n*product_recursive(n-2);
    else
        return n;
}
int main()
{
    int a,flag=1;
    printf("Enter a number: ");
    scanf("%d",&a);
    printf("%d = ",product_recursive(a));
    if (a%2==0)
    {
        for (int i=2;i<=a;i+=2)
        {
            if (!flag)
                printf("*");
            printf("%d",i);
            flag = 0;
        }
    }
    else
    {
        for (int i=1;i<=a;i+=2)
        {
            if (!flag)
                printf("*");
            printf("%d",i);
            flag = 0;
```

```
        }
    }
    return 0;
}
```


Q3.c - Untitled (Workspace) - Visual Studio Code
EXPLORER
UNTITLED (WORKSPACE)
OpenGL
Practice
Quiz
Inclass Work
HW2
C & C++ Laborat...
Apr 5
Lab_1-Chap2,3....
Q1.c
Q1.exe
Q2.c
Q2.exe
Q3.c
Q3.exe
Q4.c
Q4.exe
Q5.c
Q5.exe
Apr 12
Q1.c
Q1.exe
Q2.c
Q2.exe
Q3.c
Q3.exe
OUTLINE
TIMELINE
#include <stdio.h>
//Nguyen Minh Duc - ITITIU21045
/*
Enter the number
void product(int n)
total *= n
n -= 2
while (n>0)
total *= product(n-2)
*/
int product_recursive(int);
int product_recursive(int n)
{
if (n>2)
return n*product_recursive(n-2);
else
return n;
}
int main()
{
int a,flag=1;
printf("Enter a number: ");
scanf("%d",&a);
printf("%d = ",product_recursive(a));
if (a%2==0)
{
for (int i=2;i<=a;i+=2)
{
if (!flag)
printf("*");
printf("%d",i);
flag = 0;
}
}
else
{
PROBLEMS 6
TERMINAL
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\Acer\OneDrive - VietNam National University - HCM INTERNATIONAL UNIVERSITY\Desktop\Courses\Semester 2\C & C++ Laboratory> cd "c:\Users\Acer\OneDrive - VietNam National University - HCM INTERNATIONAL UNIVERSITY\Desktop\Courses\Semester 2\C & C++ Laboratory\Apr 12\" ; if ($?) { gcc Q3.c -o Q3 } ; if ($?) { .\Q3 }
Enter a number: 7
105 = 1*3*5*7
PS C:\Users\Acer\OneDrive - VietNam National University - HCM INTERNATIONAL UNIVERSITY\Desktop\Courses\Semester 2\C & C++ Laboratory\Apr 12> cd "c:\Users\Acer\OneDrive - VietNam National University - HCM INTERNATIONAL UNIVERSITY\Desktop\Courses\Semester 2\C & C++ Laboratory\Apr 12\" ; if ($?) { gcc Q3.c -o Q3 } ; if ($?) { .\Q3 }
Enter a number: 6
48 = 2*4*6
PS C:\Users\Acer\OneDrive - VietNam National University - HCM INTERNATIONAL UNIVERSITY\Desktop\Courses\Semester 2\C & C++ Laboratory\Apr 12>
Ln 32, Col 28
Spaces: 4
UTF-8
CRLF
C
Go Live
2 Spell
Win32
ENG
2:19 PM
4/12/2022

Q4:

```c
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
/*
function flip() uses random 0 or 1 to determine tails or heads
for i = 1 to 100, if function flip() returns 0, print toss time and tails,
otherwise, print toss time and heads
*/
int flip();

int flip()
{
    int toss = rand() % 2;
    if (toss==0)
        return 0;
    else
        return 1;
}

int main()
{
    srand(time(0));
    int count_tails = 0, count_heads = 0;
    for (int i=1;i<=100;i++)
    {
        if (flip()==0)
        {
            printf("Toss time %d: Tails\n",i);
            count_tails += 1;
        }
        else
        {
            printf("Toss time %d: Heads\n",i);
            count_heads += 1;
        }
    }
    printf("Number of times that heads appears: %d\n",count_heads);
    printf("Number of times that tails appears: %d",count_tails);
    return 0;
}
```

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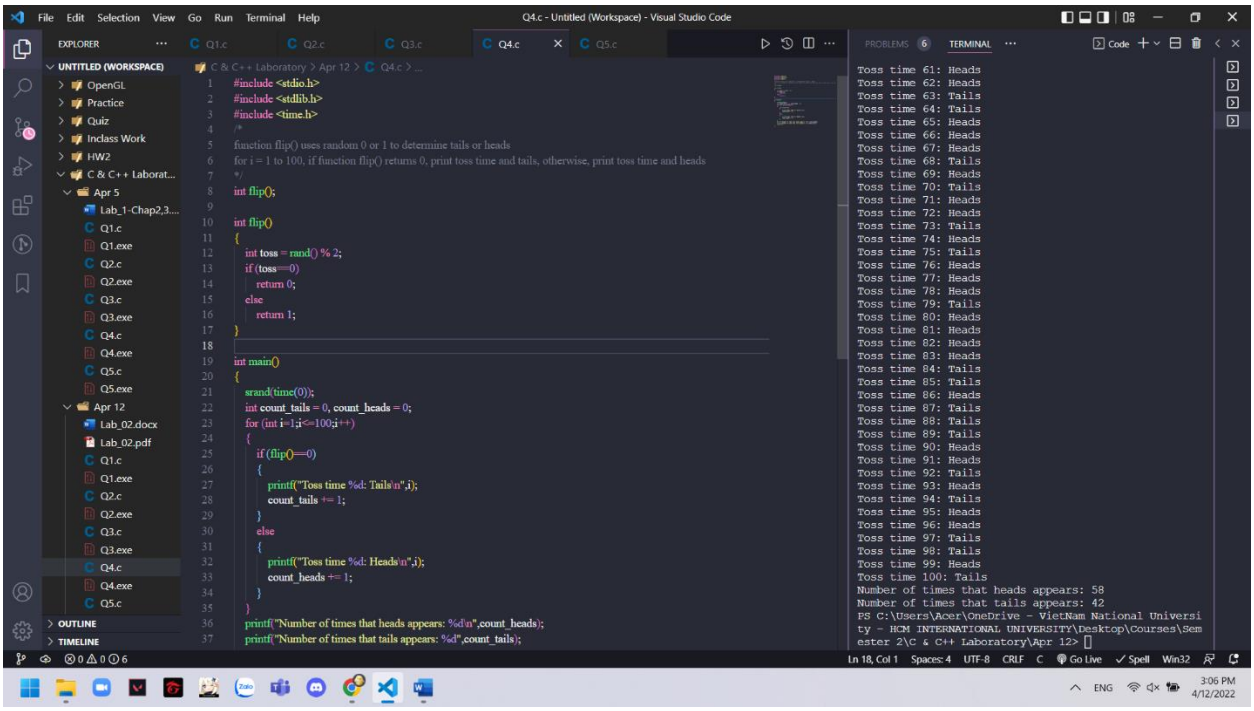

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Q5:

```c
#include <stdio.h>
/*
Enter 2 numbers a and b
for i = 1 to a*b, if i fully divided by a and b, then returns i and stop
*/
int LCM(int,int);

int LCM(int a, int b)
{
    int n;
    n = a*b;
    if (a%b==0)
        return a;
    else if (b%a == 0)
        return b;
    else
    {
    for (int i=1;i<=n;i++)
    {
        if ((i%a==0) && (i&b==0))
            return i;
        else;
            return n;
    }
    }
}

int main()
{
    int x,y;
    printf("Enter two integers: ");
    scanf("%d%d",&x,&y);
    printf("The LCM of them is %d",LCM(x,y));
    return 0;
}
```

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