Muhammad Hammad (23K-2005)

LAB 06 ASSIGNMENT

Task 03:

TASK 03.c

```c
#include <stdio.h>

int main() {
    int num1, num2, max;

    printf("Enter two numbers: ");
    scanf("%d %d", &num1, &num2);

    // FOR LCM

    max = (num1 > num2) ? num1 : num2;

    while (1) {
        if (max % num1 == 0 && max % num2 == 0) {
            printf("LCM of %d and %d is %d\n", num1, num2, max);
            break;
        }
        max++;
    }

    // FOR GCD:

     while (num1 != num2) {
        if (num1 > num2) {
            num1 = num1 - num2;
        }
        else {
            num2 = num2 - num1;
        }

    }

    printf("GCD of the two numbers is %d\n", num1);


    return 0;
}
```

```
Select C:\Users\3TEE\Desktop\TASK 03.exe
Enter two numbers: 20
7
LCM of 20 and 7 is 140
GCD of the two numbers is 1

--------------------------------
Process exited after 10.25 seconds with return value 0
Press any key to continue . . .
```

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Task 04:

```c
#include <stdio.h>
int main()
{
int a,b;
printf("Enter number a: \n");
    scanf(" %d",&a);
printf("Enter number b: \n");
    scanf(" %d",&b);

    while(a<=b)
    {
    if(a<=9)
        {
    switch(a){
    case 0:
    printf("Zero, ");
    break;
    case 1:
    printf("One, ");
    break;
    case 2:
    printf("Two, ");
    break;
    case 3:
    printf("Three, ");
    break;
    case 4:
    printf("Four, ");
    break;
    case 5:
    printf("Five, ");
    break;
    case 6:
    printf("Six, ");
    break;
    case 7:
    printf("Seven, ");
    break;
    case 8:
    printf("Eight, ");
    break;
    case 9:
    printf("Nine, ");
    break;
    default:
    printf("Negative Value\n");
    }
    }

         if(a>9)
        {
            if(a%2==0)
            printf("Even, ");
             else printf("Odd, ");
        }

    a++;

    }
    return 0;
}
```

```
C:\Users\3TEE\Desktop\TASK 04.exe
Enter number a:
5
Enter number b:
11
Five, Six, Seven, Eight, Nine, Even, Odd,
--------------------------------
Process exited after 3.326 seconds with return value 0
Press any key to continue . . .
```

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TASK 05:

TASK 03.c | TASK 04.c | TASK 05.c

```c
#include <stdio.h>
int main() {

    int i = 0;
    for(i=0;i<7;i++)
{
    if(i%2==0)
    {
        printf("%d\t%d\t%d\t%d",i,i,i,i);
    }
    else
    printf("\t%d\t%d",i,i);

    printf("\n",i);
}
    return 0;
}
```

```
C:\Users\3TEE\Desktop\TASK 05.exe
0       0       0       0
        1       1
2       2       2       2
        3       3
4       4       4       4
        5       5
6       6       6       6

--------------------------------
Process exited after 0.02507 seconds with return value 0
Press any key to continue . . .
```

TASK 06:

TASK 06.c

```c
int main () {

    int total = 21, comp;

printf("Total matches: %d", total);

while(total >= 0) {
int choice;
if (total==1) {
    printf("Oops! You lost!");
    break;
}

    printf("\nPick 1, 2, 3, or 4 sticks: ", choice);
    scanf("%d", &choice);
    if (choice>4 || choice<1) {
    printf("Invalid choice!");
    return 1;
    break; }

    total -= choice;
    printf("\nMatches left: %d", total);

    if (total == 5 || total == 10 || total == 15)
    comp = 4;
    else if (total == 4 || total == 9 || total == 14)
    comp = 3;
    else if (total == 3 || total == 8 || total == 13)
    comp = 2;
    else
    comp = 1;

    printf("\nComputer picked: %d matches",comp);
    total -= comp;
    printf("\nMatches left: %d\n\n", total);
}

return 0;
```

```
C:\Users\3TEE\Desktop\TASK 06.exe
Total matches: 21
Pick 1, 2, 3, or 4 sticks: 3

Matches left: 18
Computer picked: 1 matches
Matches left: 17


Pick 1, 2, 3, or 4 sticks: 2

Matches left: 15
Computer picked: 4 matches
Matches left: 11


Pick 1, 2, 3, or 4 sticks: 1

Matches left: 10
Computer picked: 4 matches
Matches left: 6


Pick 1, 2, 3, or 4 sticks: 3

Matches left: 3
Computer picked: 2 matches
Matches left: 1

Oops! You lost!
--------------------------------
Process exited after 5.644 seconds with return value 0
Press any key to continue . . .
```

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TASK 09:

TASK 03.c | TASK 04.c | TASK 05.c | TASK 09.c

```c
#include <stdio.h>

int main() {

    int arr[]={4,1,6,8,10,21,8,9,2,6},min=22,max=0,i=0;

    for(i=0;i<8;i++)
    {
        if(arr[i]<min)
        min=arr[i];
        if(arr[i]>max)
        max=arr[i];
    }
    printf("The minimum number is %d", min);
    printf("\nThe maximum number is %d", max);
    return 0;
}
```

```
C:\Users\3TEE\Desktop\TASK 09.exe
The minimum number is 1
The maximum number is 21
--------------------------------
Process exited after 0.0223 seconds with return value 0
Press any key to continue . . .
```