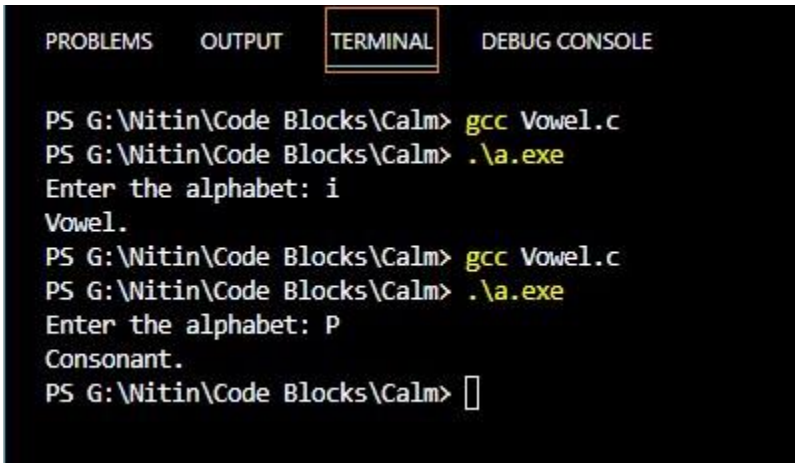
CSB Lab-5

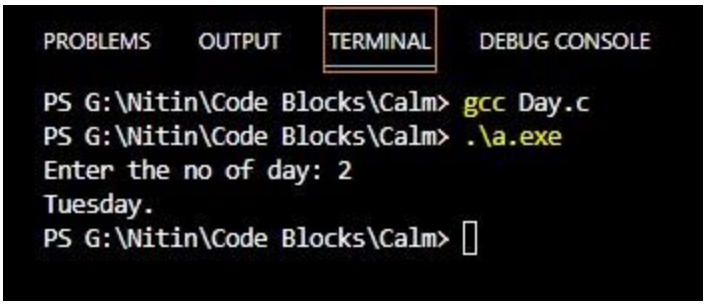
Q1) Write a program to find whether a consonant is a vowel or consonant using switch statement.

```c
#include<stdio.h>
int main()
{
    char alpha;
    printf("Enter the alphabet: ");
    scanf("%c", &alpha);

    switch (alpha){
        case 'A' : printf("Vowel.");
        break;
        case 'E' : printf("Vowel.");
        break;
        case 'I' : printf("Vowel.");
        break;
        case 'O' : printf("Vowel.");
        break;
        case 'U' : printf("Vowel.");
        break;
        case 'a' : printf("Vowel.");
        break;
        case 'e' : printf("Vowel.");
        break;
        case 'i' : printf("Vowel.");
        break;
        case 'o' : printf("Vowel.");
        break;
        case 'u' : printf("Vowel.");
        break;
        default : printf("Consonant.");
        break;
    }
}
```



Q2) Write a program to print day name using switch case.

```c
#include<stdio.h>
int main()
{
    int day;
    printf("Enter the no of day: ");
    scanf("%d", &day);
    switch (day){
        case 1 : printf("Monday.");
        break;
        case 2 : printf("Tuesday.");
        break;
        case 3 : printf("Wednesday.");
        break;
        case 4 : printf("Thursday.");
        break;
        case 5 : printf("Friday.");
        break;
        case 6 : printf("Saturday.");
        break;
        case 7 : printf("Sunday.");
        break;
        default : printf("Invalid Input!");
        break;
    }
}
```



Q3) Write a program to check whether a number is positive, negative or zero using switch statement.

```c
#include<stdio.h>
int main()
{
    int num, k;
    printf("Enter the number: ");
    scanf("%d", &num);
    if (num>0)
    {k = 1;}
    else if (num<0)
    {k = 2;}
    switch (k){
        case 1 : printf("Positive");
        break;
        case 2 : printf("Negative");
        break;
        default : printf("Zero");
        break;
    }
}
```

```
PROBLEMS    OUTPUT    TERMINAL    DEBUG CONSOLE

PS G:\Nitin\Code Blocks\Calm> gcc Sign.c
PS G:\Nitin\Code Blocks\Calm> .\a.exe
Enter the number: 24
Positive
PS G:\Nitin\Code Blocks\Calm> .\a.exe
Enter the number: -16
Negative
PS G:\Nitin\Code Blocks\Calm> .\a.exe
Enter the number: 0
Zero
```

Q4) Write a program to

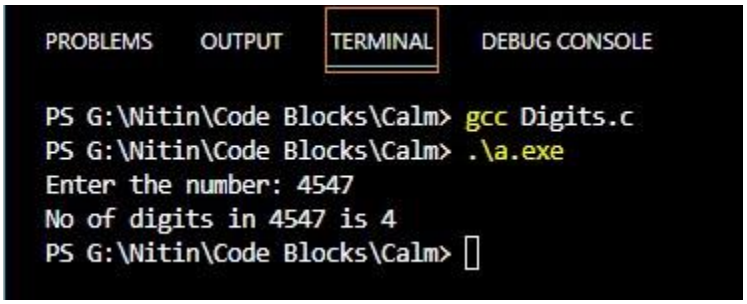
- Print positive integers from 1 to 10.

```c
#include<stdio.h>

int main()
{
    for (int i = 1; i<11; i++)
    {printf("%d\n", i);}
}
```

```
PROBLEMS    OUTPUT    TERMINAL    DEBUG CONSOLE

PS G:\Nitin\Code Blocks\Calm> gcc Integers.c
PS G:\Nitin\Code Blocks\Calm> .\a.exe
1
2
3
4
5
6
7
8
9
10
```

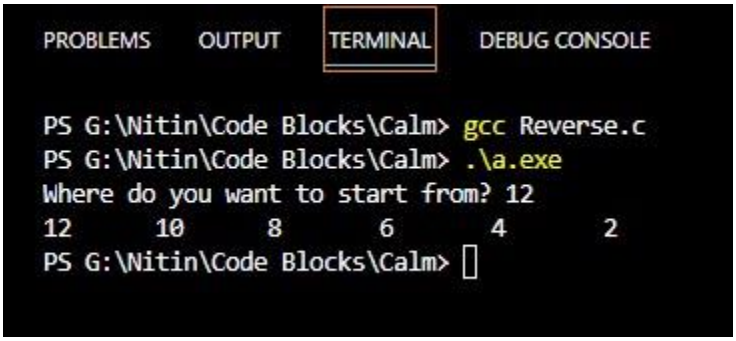
- Count number of digits in a given integer.

```c
#include<stdio.h>

int main()
{
    int num;
    printf("Enter the number: ");
    scanf("%d", &num);

    int dummy = num, dig = 0;
    while (dummy!=0)
    {
        dummy = dummy/10;
        dig++;
    }
    printf("No of digits in %d is %d", num, dig);
}
```



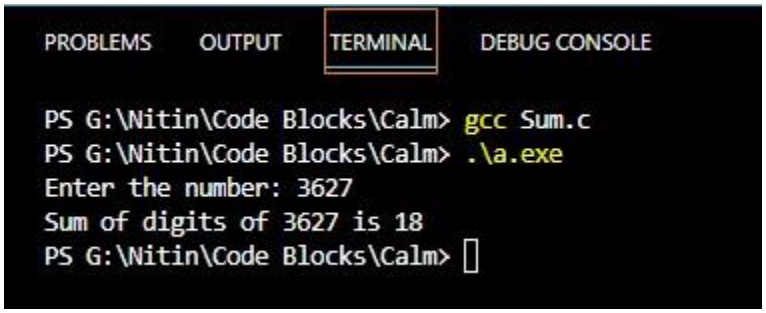
- Print number in reverse order with a difference of 2.

```c
#include<stdio.h>
int main()
{
    int num, new;
    printf("Where do you want to start from? ");
    scanf("%d", &num);

    for (int ditto = num; ditto > 0; ditto = ditto - 2)
    {
        new = ditto;
        printf("%d\t", new);
    }
}
```



- Print the sum of digits of a number using for loop.

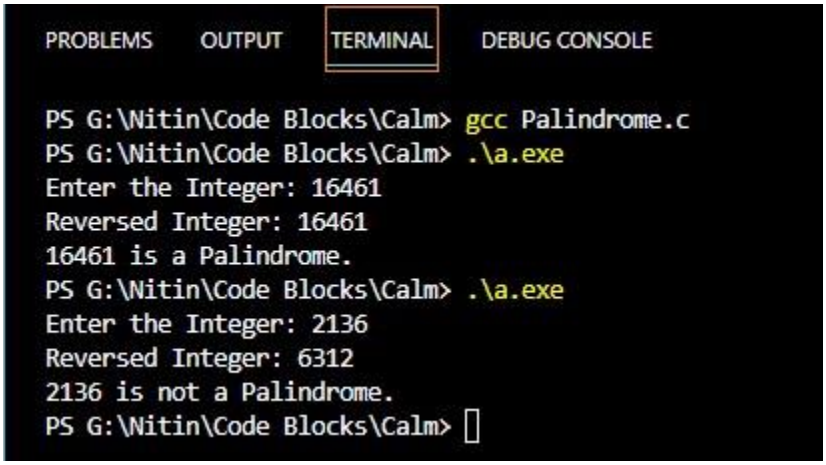
```c
#include<stdio.h>

int main()
{
    int num, rem, sum = 0;
    printf("Enter the number: ");
    scanf("%d", &num);

    for (int dummy = num; dummy>0; dummy = dummy/10)
    {
        rem = dummy%10;
        sum = sum + rem;
    }
    printf("Sum of digits of %d is %d", num, sum);
}
```



- Check whether a number is palindrome or not.

```c
#include<stdio.h>

int main()
{
```

```
    int num;
    printf("Enter the Integer: ");
    scanf("%d", &num);

    int new = 0;
    for (int ditto = num; ditto > 0; ditto = ditto/10)
    {
        new = new*10 + (ditto%10);
    }
    printf("Reversed Integer: %d\n", new);
    if (new == num)
    {printf("%d is a Palindrome.", num);}
    else
    {printf("%d is not a Palindrome.", num);}
}
```



- Generate Fibonacci series.

```
#include<stdio.h>

int main()
{
    int dig, fib0 = 1, fib1 = 1, fib2 = 0;
    printf("How many Fibonacci Numbers are required? ");
    scanf("%d", &dig);

    if (dig>=1)
    {printf("%d\n", fib0);}
    if (dig>=2)
    {printf("%d\n", fib1);}
    else
```

```
    {printf("Invalid Input!");}

    for (int i = 1; i < dig-1; i++)
    {
        fib2 = fib1 + fib0;
        fib0 = fib1;
        fib1 = fib2;
        printf("%d\n", fib2);
    }
}
```