# Joy of coding day 3

## Program 1

```c
/**********************************************************************/
#include <stdio.h>
int main()
{
    int n,c,rem=0,f=0,rev;
    printf("Enter any Number : ");
    scanf("%d",&c);
    n=c;
    printf("Individual digits are\n");
    while(n>0)
    {
        rem=n%10;
        f++;
        printf("%d ",rem);
        n/=10;

    }
    printf("\nCount of digits is %d",f);
    printf("\nReverse of %d is : ",c);
    while(c>0)
    {
        rev=c%10;
        printf("%d",rev);
        c/=10;


    }
    return 0;
}
```

```
input
Enter any Number : 5678
Individual digits are
8 7 6 5
Count of digits is 4
Reverse of 5678 is : 8765

...Program finished with exit code 0
Press ENTER to exit console.
```

## Program 2

```c
/**********************************************************************
                    Online C Compiler.
           Code, Compile, Run and Debug C program online.
Write your code in this editor and press "Run" button to compile and execute it.

**********************************************************************/

#include<stdio.h>
 int main()
{
int n,d,sum=0;
printf("Enter a number\n");
scanf("%d",&n);
while(n>0)
{
d=n%10;
sum+=d;
n=n/10;
}
printf("the sum of digits is %d\n",sum);

if(sum>10)
{
    d=sum%10;
    sum/=10;
    sum+=d;
    printf("(Single digit sum is %d)",sum);
}

  return 0;
}
```

```
input
Enter a number
15678
the sum of digits is 27
(Single digit sum is 9)

...Program finished with exit code 0
Press ENTER to exit console.
```

```
input
Enter a number
75389
the sum of digits is 32
(Single digit sum is 5)

...Program finished with exit code 0
Press ENTER to exit console.
```

## Program 3

```
8  ************************************************************************/
9  //Program 3
10 #include <stdio.h>
11
12 void main()
13 {
14     int num,a,b,sum=0;
15     scanf("%d",&num);
16     if(num == 0)
17     sum = 1;
18     else
19     {
20         while(num!=0)
21         {
22             a = num%10;
23             sum = sum + (a+1);
24             num = num/10;
25         }
26     }
27     printf("%d\n",sum);
28 }
```

```
3456
22


...Program finished with exit code 0
Press ENTER to exit console.
```

```
0
1


...Program finished with exit code 0
Press ENTER to exit console.
```

```
111
6


...Program finished with exit code 0
Press ENTER to exit console.
```

## Program 4

```
1  #include<stdio.h>
2  int main()
3  {
4      int n,temp,i;
5      printf("Enter n: ");
6      scanf("%d",&n);
7      temp=n;
8      printf("digits extracted: ");
9      while(n>0)
10     {
11         i=n%10;
12         if(i)
13             printf("%d,",i);
14         n=n/10;
15     }
16     return 0;
17 }
```

```
Enter n: 2035
digits extracted: 5,3,2,

...Program finished with exit code 0
Press ENTER to exit console.
```

# Program 5

```c
/*******************************************************************************
                        Online C Compiler.
                Code, Compile, Run and Debug C program online.
Write your code in this editor and press "Run" button to compile and execute it.

*******************************************************************************/

#include<stdio.h>
int main()
{
    int code,acode,n,i;
    i=1;
    printf("enter the code\n");
    scanf("%d",&code);
    acode=0;
    while(code>0)
    {
        n=code%10;
        code=code/10;
        if(n==9)
            acode=acode+0;
        else
            acode=acode+(n+1)*i;
        i=i*10;
    }
    printf("actual code %d",acode);
}
```

```
enter the code
8245
actual code 9356

...Program finished with exit code 0
Press ENTER to exit console.
```

```
enter the code
2995
actual code 3006

...Program finished with exit code 0
Press ENTER to exit console.
```

```
enter the code
4184
actual code 5295

...Program finished with exit code 0
Press ENTER to exit console.
```