

( SET A )

**Q1**

```
#include<stdio.h>

#include<string.h>

int main()
{

    char str[100];

    printf("Enter the string :");

    gets(str);

    //scanf("%s",str);

int count_vowels=0;
int count_consonants=0;

    strlwr(str);

    for(int i=0;i<strlen(str);i++)
    {

        if(str[i]=='a' | str[i]=='e' | str[i]=='i' | str[i]=='o' | str[i]=='u')

        {

            count_vowels++;

        }

        if((str[i]=='a' | str[i]=='e' | str[i]=='i' | str[i]=='o' | str[i]=='u') | (str[i]>='0'&&str[i]<='9'))

        {

            count_consonants++;

        }

    }

    printf("\nVowels is %d",count_vowels);

    printf("\nConsonent is %d",count_consonants);

int count_digit=0;

    for(int i=0;i<strlen(str);i++)
```

```

{
    if(str[i]>='0'&&str[i]<='9')
    {
        count_digit++;
    }
}

printf("\nDigit is %d",count_digit);

int count_space=0;
for(int i=0;i<strlen(str);i++)
{
    if(str[i]==' ')
    {
        count_space++;
    }
}

printf("\nSpace is %d",count_space);

return 0;
}

```

**Output :-**

The screenshot shows a Windows terminal window with the following content:

```

PS C:\Users\USER\Desktop\End_Model_Test> cd "c:\Users\USER\Desktop\End_Model_Test\" ; if ($?) { gcc 1.c -o 1 } ; if ($?) { .\1 }
Enter the string :ra hu231
Vowels is :2
Consonent is :3
Digit is :2
Space is :1
PS C:\Users\USER\Desktop\End_Model_Test>

```

The terminal window also shows the file explorer on the left with files like 1.c, 1.exe, 2.c, 2.exe, Q1.C, Q1.exe, Q2.C, Q2.exe, Q3.C, Q3.exe, and tempCodeRunnerFile.C. The status bar at the bottom indicates the current line and column as Ln 5, Col 96.

## Q2

```
#include<stdio.h>

int main()
{

    int n,rev=0,rem,;

    printf("Enter Number :");

    scanf("%d",&n);

    while(n!=0)
    {

        rem=n%10;

        rev=(rev*10)+rem;

        n=n/10;

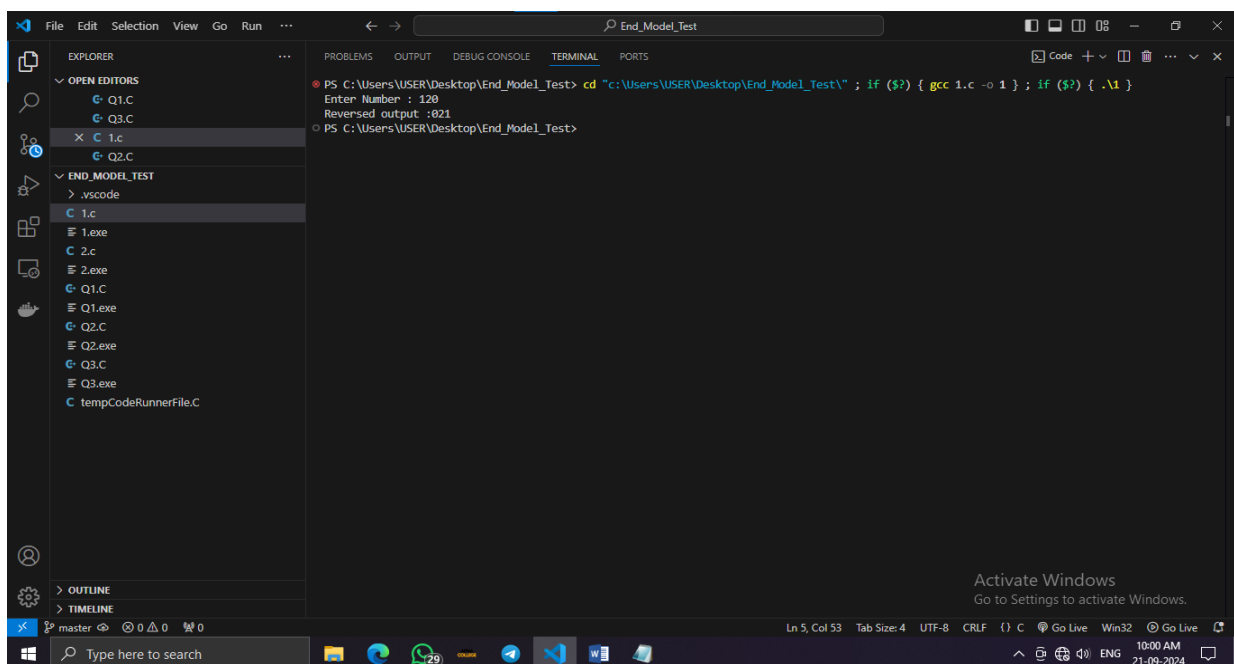
    }

    printf("\nReversed output :%d",reverse);

    return 0;

}
```

## Output :



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left displays the file structure of a project named 'END\_MODEL\_TEST', including files like 'Q1.c', 'Q2.c', '1.c', '2.c', '1.exe', '2.exe', 'Q1.exe', 'Q2.exe', 'Q3.c', 'Q3.exe', and 'tempCodeRunnerFile.C'. The main editor area shows a C program for reversing a number. The TERMINAL panel at the bottom displays the execution output: 'Enter Number : 128' followed by 'Reversed output : 821'. The status bar at the bottom indicates the current line and column (Ln 5, Col 53), tab size (4), encoding (UTF-8), and line endings (CRLF).

```
PS C:\Users\USER\Desktop\End_Model_Test> cd "c:\Users\USER\Desktop\End_Model_Test" ; if ($?) { gcc 1.c -o 1 } ; if ($?) { .\1 }
```

Enter Number : 128  
Reversed output : 821

PS C:\Users\USER\Desktop\End\_Model\_Test>

### Q3

```
#include<stdio.h>
```

```
#include<string.h>
```

```
typedef struct product{
```

```
    char name[10];
```

```
    int id;
```

```
    double price;
```

```
}product;
```

```
int main()
```

```
{
```

```
    int discount ,GST;
```

```
    int n;
```

```
    printf("How many product you add :");
```

```
    scanf("%d",&n);
```

```
    product arr[10];
```

```
    for(int i=0;i<n;i++)
```

```
    {
```

```
        printf("\nProduct");
```

```
        printf("\nEnter id:");
```

```
        scanf("%d",&arr[i].id);
```

```
        printf("Enter Name:");
```

```
        scanf("%s",arr[i].name);
```

```
        printf("Enter price:");
```

```
        scanf("%lf",&arr[i].price);
```

```
    }
```

```
For(int i=0;i<n;i++){

    if(arr[i].price>500)
    {
        discount=arr[i].price-((arr->price*20)/100);
        printf("\nTotal discount on price will be :%d\n",discount);
    }
    else if(arr[i].price<500)
    {
        discount=arr[i].price-((arr->price*5)/100);
        printf("\nTotal discount on price will be :%d\n",discount);
    }
    else
    {
        printf("no op");
    }

}
```

//display

```
for(int i=0;i<n;i++)
{
    printf("\n\nDisplay details of product %d",i+1);
    printf("\n%d",arr[i].id);
    printf("\n%s",arr[i].name);
    printf("\n%lf",arr[i].price);

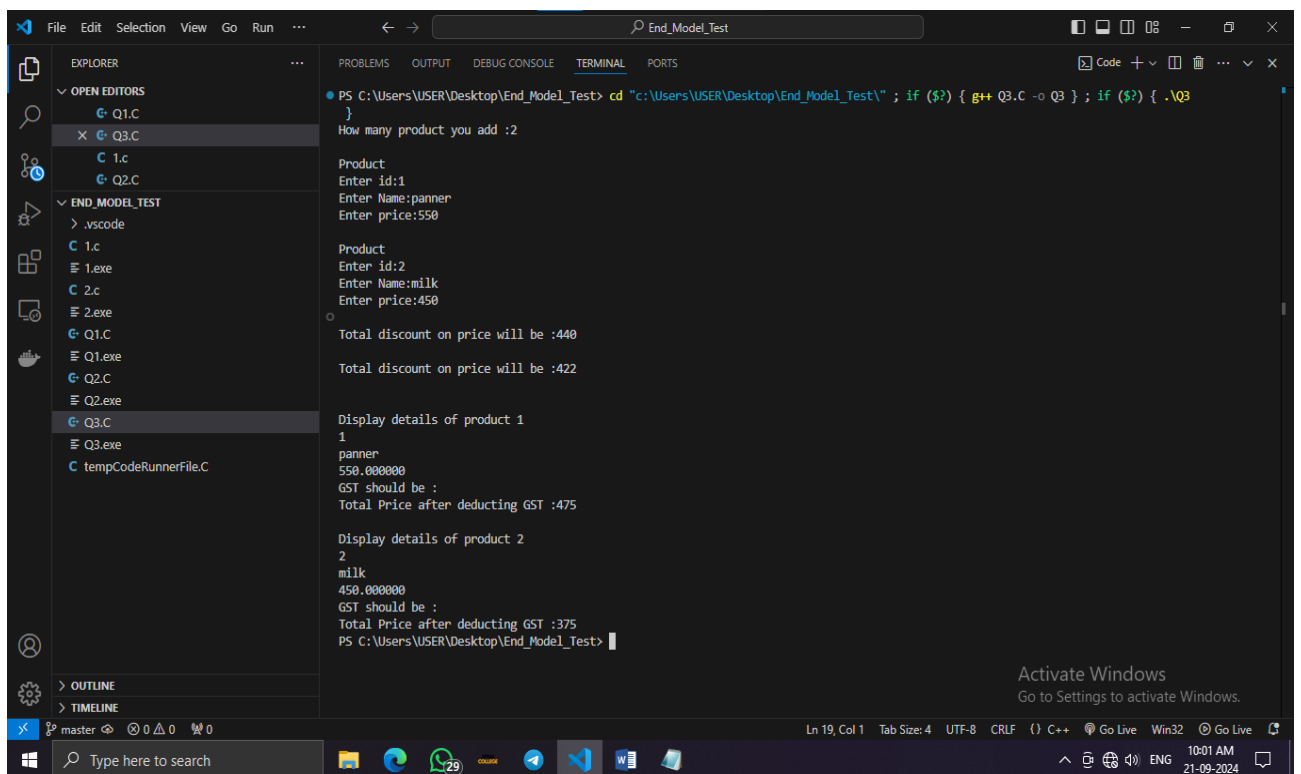
    printf("\nGST should be :");
    GST=arr[i].price-(discount*18)/100;
    printf("\nTotal Price after deducting GST :%d",GST);
}
```

```
}
```

```
return 0;
```

```
}
```

## Output :-



```
PS C:\Users\USER\Desktop\End_Model_Test> cd "c:\Users\USER\Desktop\End_Model_Test\" ; if ($?) { g++ Q3.C -o Q3 } ; if ($?) { .\Q3
}
How many product you add :2

Product
Enter id:1
Enter Name:panner
Enter price:550

Product
Enter id:2
Enter Name:milk
Enter price:450

Total discount on price will be :440

Total discount on price will be :422

Display details of product 1
1
panner
550.000000
GST should be :
Total Price after deducting GST :475

Display details of product 2
2
milk
450.000000
GST should be :
Total Price after deducting GST :375
PS C:\Users\USER\Desktop\End_Model_Test>
```