

Logic Building Assignment : 8

Create separate visual Studio project for each problem statement separately.

Calculate Time Complexity of each program.

1. Write a program which accept number from user and display below pattern.

Input : 5

Output : * * * * * # # # # #

Input : 6

Output : * * * * * * # # # # # #

Input : -5

Output : * * * * * # # # # #

Input : 2

Output : * * # #

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

```
void Display(int iNo)
{
    // Logic
}
```

```
int main()
{
    int iValue = 0;

    printf("Enter number");
    scanf("%d",&iValue);

    Display(iValue);

    return 0;
}
```

2. Accept amount in US dollar and return its corresponding value in Indian currency.
Consider 1\$ as 70 rupees.

Input : 10
Output : 700

Input : 3
Output : 270

Input : 1200
Output : 84000

```
#include<stdio.h>

int DollarToINR(int iNo)
{
    // Logic
}

int main()
{
    int iValue = 0, iRet = 0;

    printf("Enter number of USD");
    scanf("%d",&iValue);

    iRet = DollarToINR(iValue);

    printf("Value in INR is %d",iRet);

    return 0;
}
```

3. Write a program to find even factorial of given number.

Input : 5
Output : 8 (4 * 2)

Input : -5
Output : 8 (4 * 2)

Input : 10
Output : 3840 (10 * 8 * 6 * 4 * 2)

```
#include<stdio.h>

int EvenFactorial(int iNo)
{
    // Logic
}

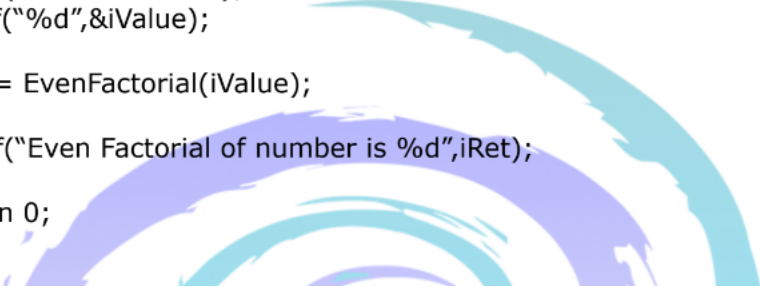
int main()
{
    int iValue = 0,iRet = 0;

    printf("Enter number");
    scanf("%d",&iValue);

    iRet = EvenFactorial(iValue);

    printf("Even Factorial of number is %d",iRet);

    return 0;
}
```



4. Write a program to find odd factorial of given number.

Input : 5
Output : 15 (5 * 3 * 1)

Input : -5
Output : 15 (5 * 3 * 1)

Input : 10
Output : 945 (9 * 7 * 5 * 3 * 1)

```
#include<stdio.h>

int OddFactorial(int iNo)
{
    // Logic
}

int main()
{
    int iValue = 0,iRet = 0;

    printf("Enter number");
    scanf("%d",&iValue);

    iRet = OddFactorial(iValue);

    printf("Odd Factorial of number is %d",iRet);

    return 0;
}
```

5. Write a program which returns difference between Even factorial and odd factorial of given number.


Input : 5
Output : -7 (8 - 15)

Input : -5
Output : -7 (8 - 15)

Input : 10
Output : 2895 (3840 - 945)

```
#include<stdio.h>

int FactorialDiff(int iNo)
{
    // Logic
}
```



```
int main()
{
    int iValue = 0,iRet = 0;

    printf("Enter number");
    scanf("%d",&iValue);

    iRet = FactorialDiff(iValue);

    printf("Factorial difference is %d",iRet);

    return 0;
}
```