Logic Building Assignment : 9

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;
}
```