Logic Building Assignment : 7

Complete below code snippets it contains only service provider function.

Write entry point function to call below helper functions separately.

Create separate visual Studio project for each problem statement separately.

Each project should contains below things
- **File which contains entry point function**
- **File which contains helper function**
- **File which works as header file**

1.Write a program which accept two numbers from user and calculate its power.

Input : 3 4
Output : 81

Input : 7 3
Output : 343

```
LONG Power (int iNo1, int iNo2)
{
	// Logic
}
```

2. Write a program which accept number from user and check whether that number is strong number or not. When the sum of the factorial of a number's individual digits are equal to the number itself, then that number is called a strong number.

Input : 145 since 1! + 4! + 5! = 1 + 24 + 120 = 145

Output : TRUE

```
BOOL ChkStrong(int iNo)
{

	// Logic

}
```

3. Write a program which accept principle amount, time and create of interest from user and calculate simple interest.

SimpleIntrest = PrincipleAmount * Time * RateOfIntrest / 100

_____ SImpleIntrest (_____ Preinciple, ____ time, _____ Rate)

{

// Logic

}

4. Accept number from user and check whether it is Armstrong number or not. Armstrong number is a number that is the sum of its own digits each raised to the power of the number of digits is same as the given number.

Input : 153

BOOL ChkArmstrong (int iNo)

{

// Logic

}

5. Accept one numbers from user and display frequency of each digit.

Input : 543457
Output : 3 -> 1
4 -> 2
5 -> 2
7 -> 1

void Frequency (int iNo)
{
// Logic
}

6. Accept range from user and perform addition of all elements form that range.

Input : 10 15
Output : 15

```
UINT SumRange (int iStart, int iEnd)
{
    // Logic
}
```

7. Accept one numbers from user and display below pattern as.

Input : 3
Output : 3 # # # 2 # # 1 #

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

8. Accept one character from user and depends on that character display its type.

Input : A
Output : It is Capital

Input : d
Output : It is Small

Input : 5
Output : It is Digit

```
void Display(char ch)
{
    // Logic
}
```

9. Write a program which accept range from user and display all prime numbers between that range.

Input : 5 20
Output : 5 7 11 13 17 19

```
void PrimeRange(int iStart, int iEnd)
{
```

```
    // Logic
}
```

10. Accept number from user and return its generic root.

Input : 7429
Output : 4 (7+4+2+9 -> 22 -> 2+2 -> 4)

Input : 90281
Output : 2 (9+0+2+8+1 -> 20 -> 2+0 -> 2)

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