Software Development & Construction

LAB 2

Task. 1: Recall the "**Calculator"** class to add, subtract, multiply, & divide numbers from the last session and update said functions for following arguments type being passed.

- Integer
- Float
- String
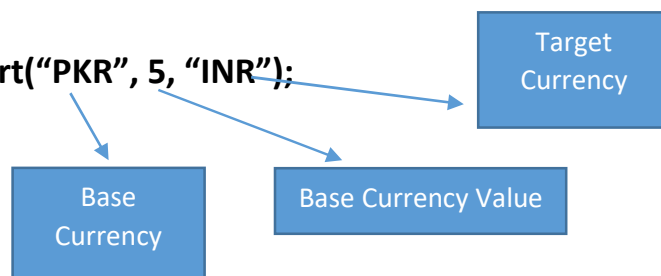- Integer Array[1,2,3]
- String Array["1", "2", "3"]

Exp:

Calculator.Add(1,2);

Calculator.Add(1.0,2.4);

Calculator.Add("1","2");

Calculator.Add(Arr1)

Calculator.Add(1,2,3)

Calculator.Add("1","2","3")

Task. 2: Make a **"CurrencyConverter"** class and write a static function named "convert". Save currency values in an array.

Currency Values (For USD):

1$	236 PKR
1$	0.88 Pound
1$	3.67 Dirham
1$	79 INR
1$	104 BDT
1$	142 JPY

Exp: **CurrencyConverter.convert("PKR", 5, "INR");**

Target Currency

Base Currency

Base Currency Value

Task. 3: Make a dice rolling game in a 2D (10 X 10) array, move the pointer (x) to the end of array using a random number generator (from 1-6) at every iteration.

Exp:

1st Iteration (Number generated : 5)

0 0 0 0 x 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

2nd Iteration (Number generated: 6)

0 0 0 0 0 0 0 0 0 0

x 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 0 0

Task. 4: Modify the **Alphabet Task** from last session by plotting the word "KING" into a 2D (10 X 10) array using nested for loop.

Exp:

Print "F"

1 1 1 1 1 1 1 1 1 1

1 0 0 0 0 0 0 0 0 0

1 0 0 0 0 0 0 0 0 0

1 0 0 0 0 0 0 0 0 0

1 1 1 1 1 1 1 1 1 1

1 0 0 0 0 0 0 0 0 0

1 0 0 0 0 0 0 0 0 0

1 0 0 0 0 0 0 0 0 0

1 0 0 0 0 0 0 0 0 0