

Final Assessment Test -2

Q1: Demonstrate the usage of `@classmethod`, `@staticmethod` and `@property`, each with an example.

Q2: Write a program to display the below shape

```

      *
     ***
    *****
   ********
  *********
 ***       ***
***       ***
***       ***
***       ***
***       ***
***       ***

```

Q3: Write a program to display the numbers in the below pattern:

```

01  02  03  04  05
14  15  16  17  06
13  20  19  18  07
12  11  10  09  08

```

Q4: Write a program to display the prime numbers between 0 and 100. Among them, if the 5th and 6th prime numbers are the first two fibonacci numbers, what is the 7th fibonacci number

Q5: write a class to implement the double linked list?

Q6: Write a class with methods, to check whether a given year is leap year, or not.

HINT: A leap year is exactly divisible by 4 except for century years (years ending with 00). The century year is a leap year only if it is perfectly divisible by 400. For example,

2017 is not a leap year

1900 is a not leap year

2012 is a leap year

2000 is a leap year