





Assignment: 04

Student ID : C0930321

Student Name : Shreejana Shrestha

Die program

```
python > Assignments > labAssignment4 > labAssignment4 >  dice_program.py >  Die >  roll
1  import random
2  from dataclasses import dataclass
3
4  @dataclass
5  class Die:
6      __value:int = 1
7
8      @property
9      def value(self):
10         return self.__value
11
12     def roll(self):
13         self.__value = random.randrange(1, 7)
14
15     def __str__(self):
16         return str(self.__value)
17
18     class Dice(list):
19         def __init__(self):
20             self.__list = []
21
22         def addDie(self, die):
23             self.__list.append(die)
24
25         def rollAll(self):
26             for die in self.__list:
27                 die.roll()
28
```

python > Assignments > labAssignment4 > labAssignment4 >  dice_program.py > ...

```
18 class Dice(list):
25     def rollAll(self):
27         die.roll()
28
29     def __iter__(self):
30         for die in self.__list:
31             yield die
32
33 dice = Dice()
34 dice.append(Die()) # uses method from list class
35 dice.append(Die()) # uses method from list class
36 dice.rollAll()
37 die = dice[0] # uses operators from list class
38 dice.insert(0, Die()) # uses method from list class
39 # dice.pop() # uses method from list class
40 print(dice)
41 print("Die value:", die.value)
42 print("Dice count:", len(dice))
43
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sthas\OneDrive - Lambton College\lambton\Term 2\Assignments> & C:/Python38/python.exe "c:/Users/sthas/OneDrive - Lambton College/lambton/Term 2/Assignments/dice_program.py"
[Die(_Die__value=1), Die(_Die__value=1), Die(_Die__value=1)]
Die value: 1
Dice count: 3
PS C:\Users\sthas\OneDrive - Lambton College\lambton\Term 2\Assignments> |
```