Challenge 1.1 :



```
#Write a program that determines whether
    a year entered by the user is a leap year
    or not using if-elif-else statements.
 2
 3
   year%4==0&
 4
   year%100!=0/
 5
    year%400==0
    11 11 11
 6
 7
 8
 9 v def isLeapYear(year):
10 \ \text{if (year } \% \ 4 == 0 \text{ and year } \% \ 100 \ != 0)
    or year % 400 == 0:
11
        return True
12 ~
      else:
13
       return False
14
15
    year = int(input("Enter a year: "))
16
17
18 v if isLeapYear(year): # Call the function
    and pass the 'year' variable
19
      print('{} is a leap year.'.format(year))
20 velse:
      print('{} is not a leap
21
    year.'.format(year))
22
```

Challenge 1.2

111

Exit

```
1 # Implement a recursive function to
    calculate the factorial of a given number.
2 v def fact_rec(n):
     if n == 0 or n == 1:
4
       return 1
5 ,
      else:
        return n * fact_rec(n - 1)
6
7
8
    number = int(input(" Enter a value:"))
9
    res = fact_rec(number)
10
    print("The factorial of {} is
11
    {}".format(number, res))
12
                                 Ln 1, Col 1 History 'S
                     main.py
                                             Run
```