**#8. Code Testing using Python**

**Roll Number: CB.EN.P2EBS22002**

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**Aim:**

Automate unit testing for finding factorial of numbers 1 to 10 using assert function in python

**Tools Required:**

PyCharm and python compiler

**Experiment:**

Code

Main.py:

def fact(n):  
 value = 1  
 # i=1  
 print(n)  
 for i in range(1,n+1):  
 value = value \* i  
 #print(value)  
 return value

* **Test.py:**

import unittest  
  
from main import fact  
  
class TestFact(unittest.TestCase):  
 def test\_list\_int(self):  
 factValue = 1  
  
 for i in range(1, 11):  
 factValue = factValue \* i  
 result=fact(i)  
 self.assertEqual(result,factValue)  
  
 def test\_list\_int\_cond(self):  
 factValue = 1  
 for i in range(1, 11):  
 factValue = factValue \* i  
 result = fact(i+1)  
 self.assertEqual(result, factValue)  
  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 test\_list\_int()  
 test\_list\_int\_cond()  
 unittest.main()

**Inference and Result:**

The python code for finding factorial of 1-10 number is automated using *unittest* and *assertion* functions.

