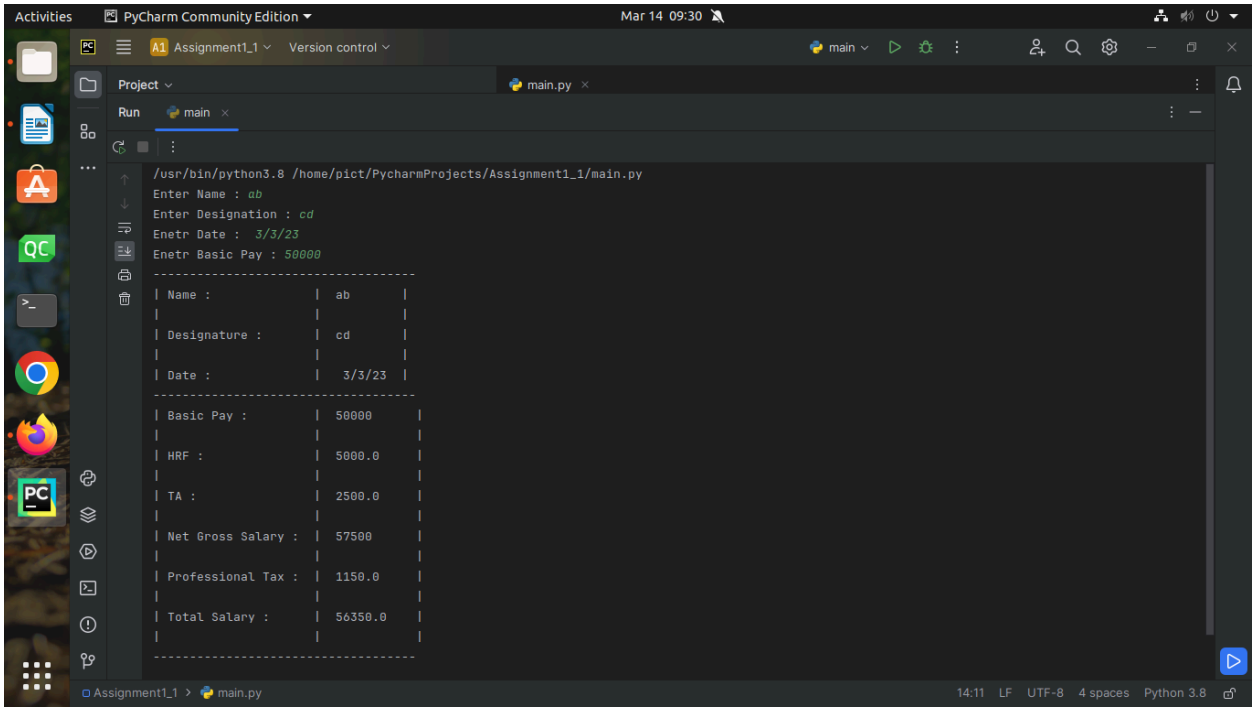
Assignment 1 : Salary

Q.
Write a program in Python to calculate salary of an employee given his basic pay (take as input from user). Calculate gross salary of employee. Let HRA be 10 % of basic pay and TA be 5% of basic pay. Let employee pay professional tax as 2% of total salary. Calculate net salary payable after deductions.

```
Name  = input("Enter Name : ")

designation = (input("Enter Designation : "))

Date = input("Enetr Date : ")

Basic_Pay = (int(input("Enetr Basic Pay : ")))

HRF = (Basic_Pay*0.1)

TA = (Basic_Pay*0.05)

Net_Gross_Salary = (int( Basic_Pay + HRF + TA ))

Professional_Tax = (Net_Gross_Salary*0.02)

Total_Salary = (Net_Gross_Salary - Professional_Tax)

print("-------------------------------------")

print("|  Name  :                      |  "  ,Name  ,   "          |  "  ,  "\n|
|           |" )

print("|  Designature  :           |  "  ,  designation  ,   "         |  "  ,  "\n|
|           | " )

print("|   Date   :                            |  "  ,  Date  ,  "  |      "  ,
"\n-------------------------------------" )

print("|  Basic  Pay  :              |  "  ,  Basic_Pay  ,  "        |  "  ,  "\n|
|             | " )
```

```
print("| HRF :                | " , HRF , "     | " , "\n|                          |
|   " )

print("| TA :                 | " , TA , "     | " , "\n|                          |
| " )

print("| Net Gross Salary :   | " , Net_Gross_Salary , "       | " , "\n|
|              |  " )

print("| Professional Tax :   | " , Professional_Tax , "       | " , "\n|
|              | " )

print("| Total Salary :           |  " , Total_Salary , "     | " , "\n|
|              | "  )

print("-------------------------------------")
```

Output:



Calculator

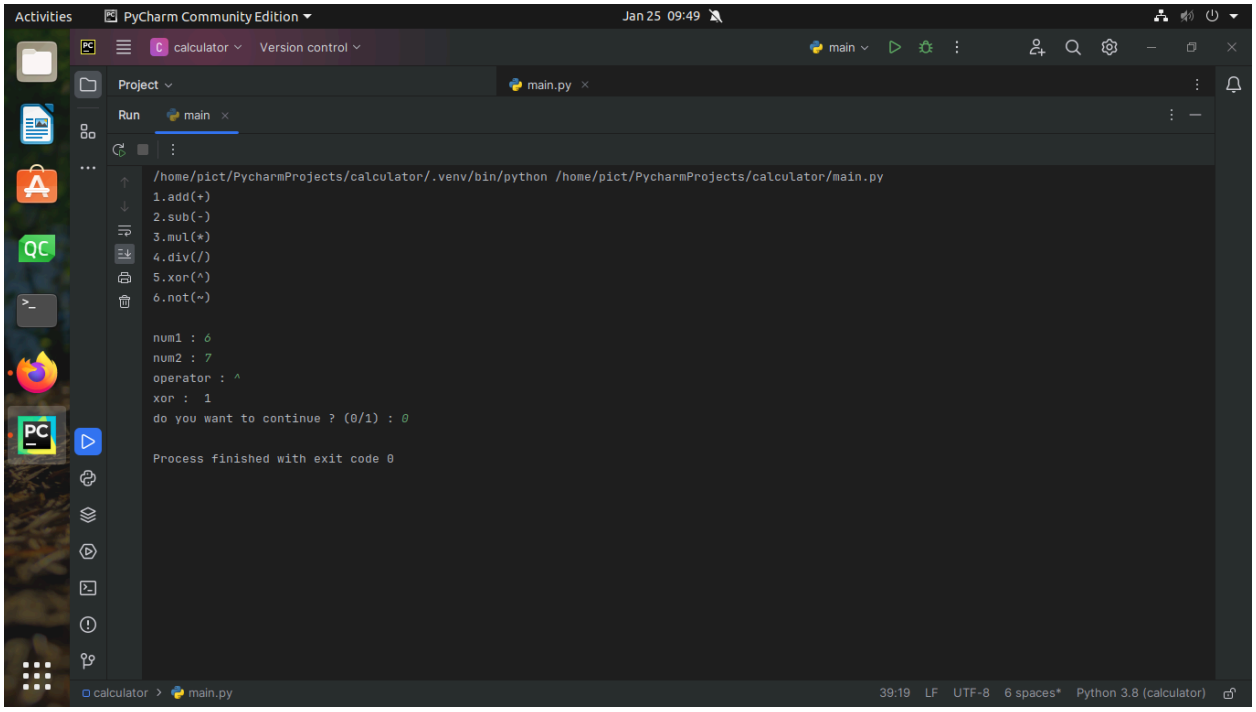
Q.
Write a program in Python to simulate simple calculator that performs basic tasks such as addition, subtraction, multiplication and division with special operations like computing x^y and x!.

```
ch = 1
while ch == 1:

    print(""
          "1.add(+)\n"
          "2.sub(-)\n"
          "3.mul(*)\n"
          "4.div(/)\n"
          "5.xor(^)\n"
          "6.not(~)\n")
    num1 = float(input('num1 : '))
    num2 = float(input('num2 : '))
    op = (input('operator : '))
    if op == '+' :
          add = num1 + num2
          print('add : ', add)
    elif op == '-' :
          sub = num1 - num2
          print('sub : ', sub)
    elif op == '*' :
          mul = num1 * num2
          print('mul : ', mul)
    elif op == '/' :
          div = num1 / num2
          print('div : ', div)
    elif op == '^' :
          a = int(num1)
          b = int(num2)
          xor = a^b
          print('xor : ', xor)
    elif op == '~' :
          a = int(num1)
          b = int(num2)
          print('~num1, ~num2 : ', ~a, ~b)
    else:
          print('invalid operator')
```

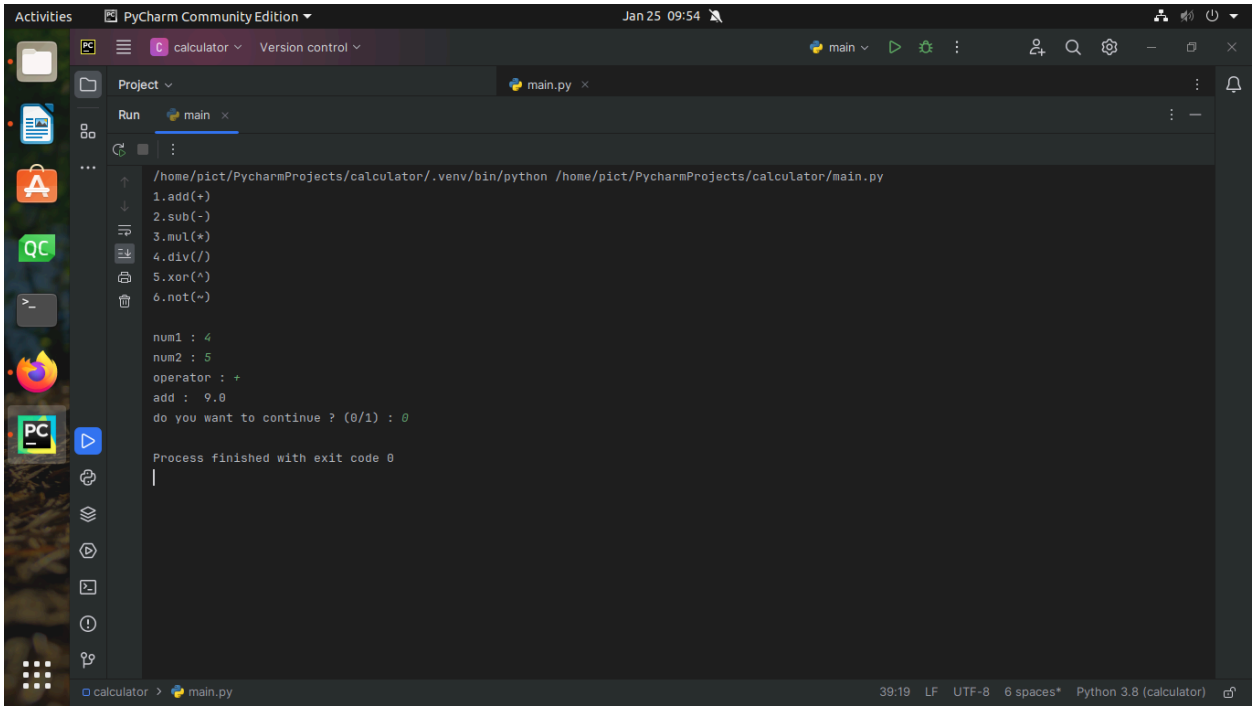
```
ch = int(input('do you want to continue ? (0/1) : '))
if ch == 1 :
      continue
elif ch == 0 :
      break
else :
      print('invalid ')
```

Output :

1.



2.


Activities
PyCharm Community Edition
Jan 25 09:54
calculator
Version control
main
Project
main.py
Run
main
/home/pict/PycharmProjects/calculator/.venv/bin/python /home/pict/PycharmProjects/calculator/main.py
1.add(+)
2.sub(-)
3.mul(*)
4.div(/)
5.xor(^)
6.not(~)
num1 : 4
num2 : 5
operator : +
add : 9.0
do you want to continue ? (0/1) : 0
Process finished with exit code 0
calculator
main.py
39:19
LF
UTF-8
6 spaces*
Python 3.8 (calculator)