

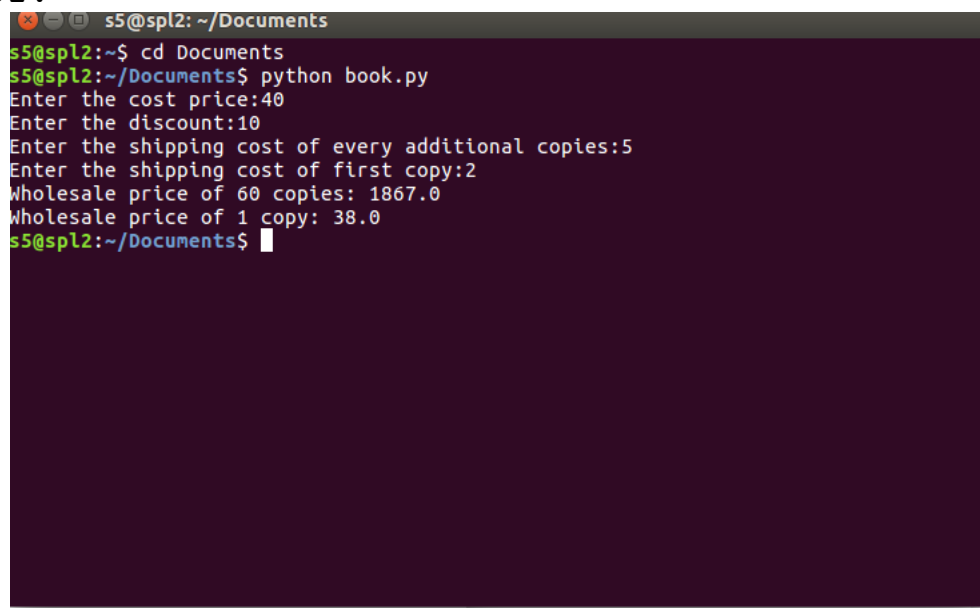
# *Ex 2: Simple Python Programming*

## Assignment:

1. Suppose the cover price of a book is ₹X, but bookstores get a discount of Y%. Shipping costs incurs ₹ Z for the first copy and ₹ P for each additional copy. What is the total wholesale cost for 60 copies? Develop a program to print the wholesale cost of a single book and the wholesale cost of 60 copies.

```
cp=int(input("Enter the cost price:"))
dis=int(input("Enter the discount:"))
Y=cp-(cp*(dis/100))
Z=int(input("Enter the shipping cost of first copy:"))
P=int(input("Enter the shipping cost of every additional copies:"))
a=Y+Z
b=a+((cp-(cp*(dis/100))+P))*59
print("Wholesale price of 60 copies:",b)
print("Wholesale price of 1 copy:",a)
```

## OUTPUT:



```
s5@spl2: ~/Documents
s5@spl2:~$ cd Documents
s5@spl2:~/Documents$ python book.py
Enter the cost price:40
Enter the discount:10
Enter the shipping cost of every additional copies:5
Enter the shipping cost of first copy:2
Wholesale price of 60 copies: 1867.0
Wholesale price of 1 copy: 38.0
s5@spl2:~/Documents$
```

**2. Get the date of birth of a person and calculate his age in years and months**

```
a=int(input("ENTER YOUR YEAR OF BIRTH:"))
b=int(input("ENTER YOUR MONTH OF BIRTH:"))
c=int(input("ENTER CURRENT YEAR:"))
d=int(input("ENTER CURRENT MONTH:"))
yr_diff=c-a
month_diff=d-b
if month_diff < 0:
    yr_diff-=1
    month_diff+=12
    print("YOUR AGE IS:")
    print(yr_diff,"year",month_diff,"month")
else:
    print("YOUR AGE IS:")
    print(yr_diff,"year",month_diff,"month")
```

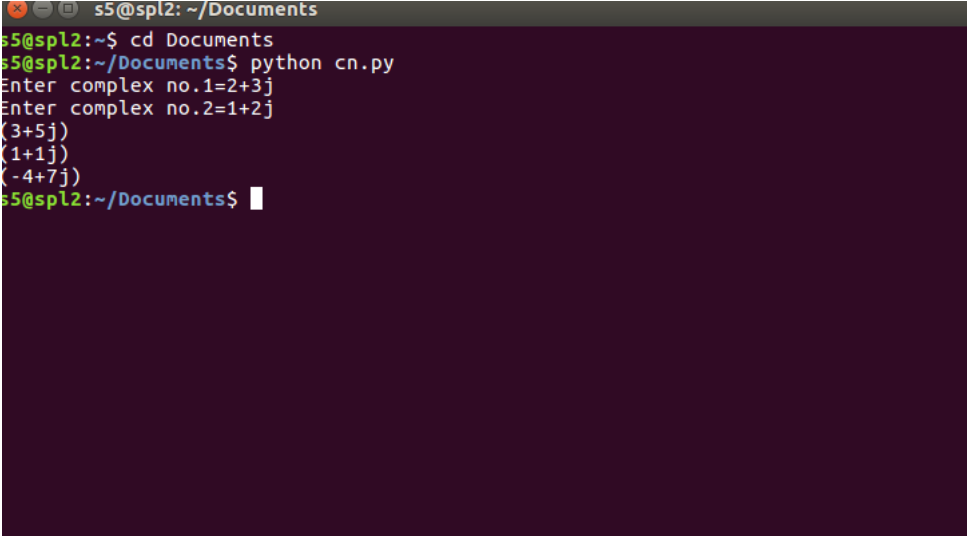
**OUTPUT:**

```
ENTER YOUR YEAR OF BIRTH:2005
ENTER YOUR MONTH OF BIRTH:06
ENTER CURRENT YEAR:2023
ENTER CURRENT MONTH:09
YOUR AGE IS:
18 year 3 month
```

**3. Read two complex numbers from the user and find their a. sum, b. difference c. product.**

```
a=complex(input("Enter complex no.1="))
b=complex(input("Enter complex no.2="))
sum1=a+b
diff=a-b
prod=a*b
print(sum1)
print(diff)
print(prod)
```

**OUTPUT :**



```
s5@spl2: ~/Documents
s5@spl2:~$ cd Documents
s5@spl2:~/Documents$ python cn.py
Enter complex no.1=2+3j
Enter complex no.2=1+2j
(3+5j)
(1+1j)
(-4+7j)
s5@spl2:~/Documents$
```

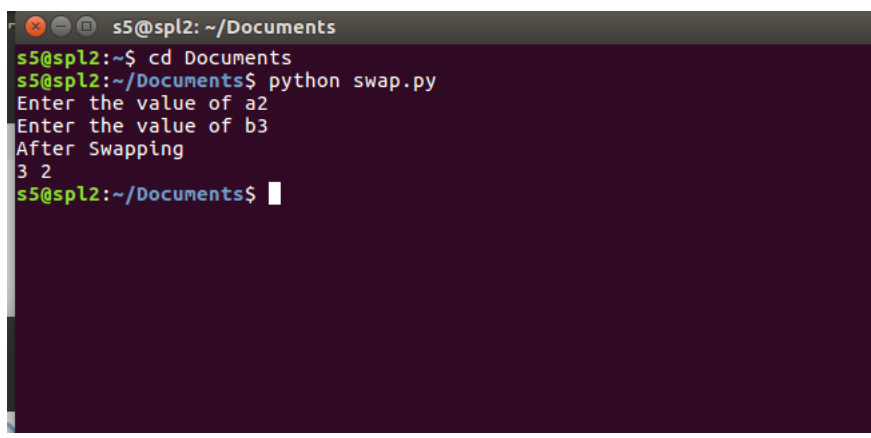
The image shows a terminal window with a dark purple background. The prompt is 's5@spl2: ~/Documents'. The user enters 'cd Documents'. The prompt changes to 's5@spl2:~/Documents\$'. The user enters 'python cn.py'. The program prompts for two complex numbers. The first input is '2+3j' and the second is '1+2j'. The program outputs the sum '(3+5j)', the difference '(1+1j)', and the product '(-4+7j)' on separate lines. The prompt returns to 's5@spl2:~/Documents\$'.

## Additional Programs:

### 1. Swapping two numbers

```
a=int(input("Enter the value of a"))
b=int(input("Enter the value of b"))
c=a
a=b
b=c
print("After Swapping")
print(a,b)
```

### OUTPUT :

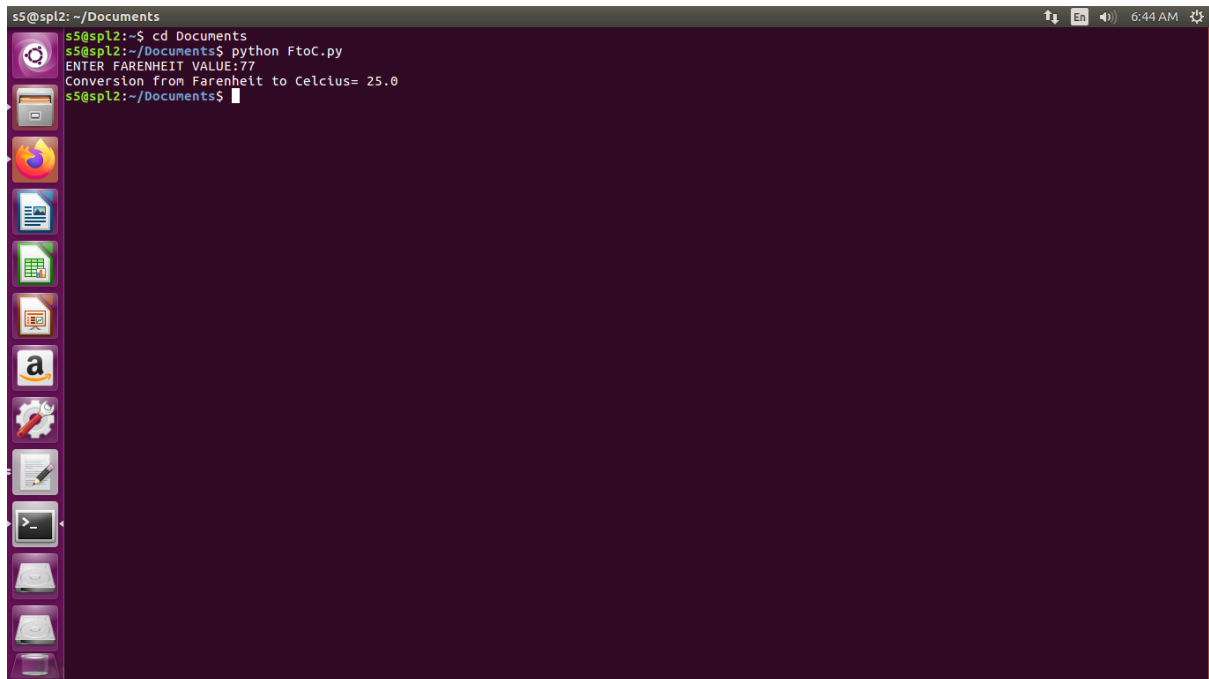
A terminal window with a dark purple background. The title bar shows 's5@spl2: ~/Documents'. The terminal text is as follows:

```
s5@spl2:~$ cd Documents
s5@spl2:~/Documents$ python swap.py
Enter the value of a2
Enter the value of b3
After Swapping
3 2
s5@spl2:~/Documents$
```

## 2. Temperature conversion from Fahrenheit to Celsius

```
F=int(input("ENTER FARENHEIT VALUE:"))  
C=5/9*(F-32)  
print("Conversion from Farenheit to Celcius=",C)
```

**OUTPUT:**



The screenshot shows a terminal window with a dark purple background. The title bar at the top reads "s5@spl2: ~/Documents". The terminal output is as follows:

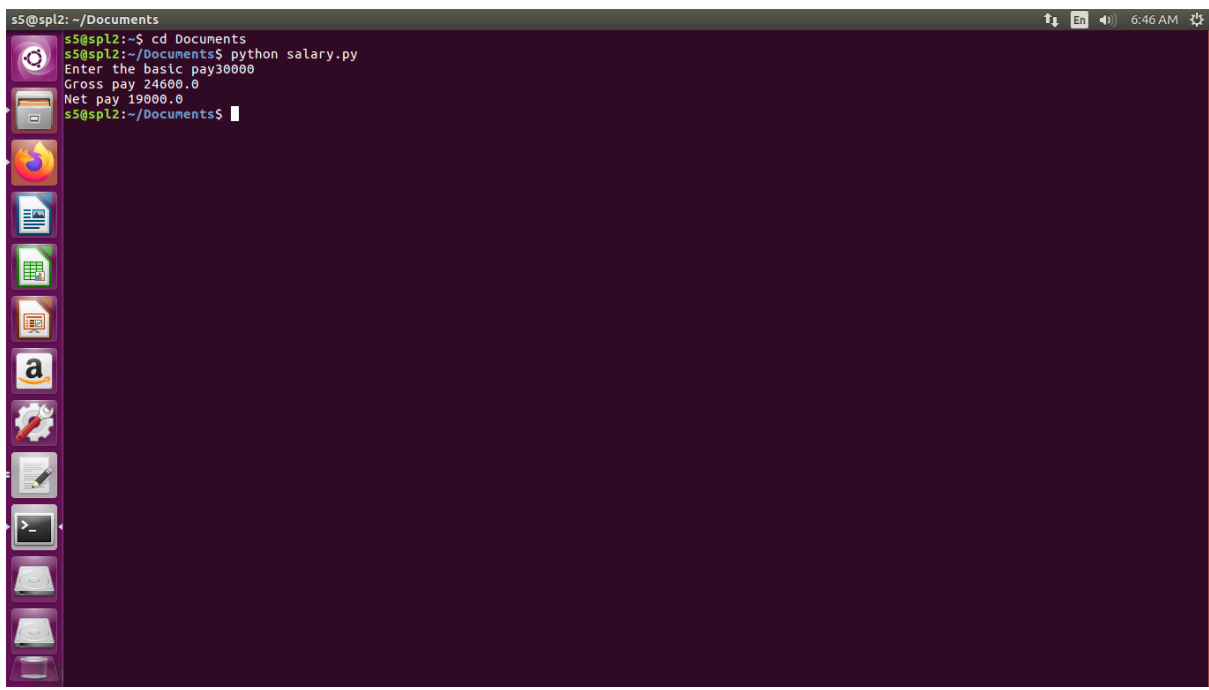
```
s5@spl2:~$ cd Documents  
s5@spl2:~/Documents$ python FtoC.py  
ENTER FARENHEIT VALUE:77  
Conversion from Farenheit to Celcius= 25.0  
s5@spl2:~/Documents$
```

On the left side of the terminal window, there is a vertical dock containing several application icons, including a gear for settings, a folder, a web browser, a document, a spreadsheet, a presentation, an Amazon logo, a terminal, and a file manager.

3. Compute the gross and net salaries of an employee for the given basic pay (BP) based on the allowances and deductions. Gross pay includes basic and all allowances, Net pay is the difference between gross pay and deductions. Allowances: DA = 62% of BP HRA = 8% of BP Deductions: Insurance = Rs. 2000 PF = 12% of BP

```
basic_pay=int(input("Enter the basic pay"))
da=0.62*basic_pay
hra=0.08*basic_pay
Insurance=2000
pf=0.12*basic_pay
gp=da+hra+pf
np=gp-Insurance-pf
print("Gross pay",gp)
print("Net pay",np)
```

### OUTPUT :

A screenshot of a Linux terminal window with a dark purple background. The window title is 's5@spl2: ~/Documents'. The terminal shows the following commands and output:

```
s5@spl2:~$ cd Documents
s5@spl2:~/Documents$ python salary.py
Enter the basic pay30000
Gross pay 24600.0
Net pay 19000.0
s5@spl2:~/Documents$
```

The left sidebar of the terminal window displays various application icons, including a gear for settings, a folder, Firefox, LibreOffice Writer, LibreOffice Calc, LibreOffice Impress, Amazon, a settings icon, a document icon, a terminal icon, and storage icons for a hard drive and a USB drive. The top right corner of the window shows system status icons for network, language (En), volume, and the time 6:46 AM.