1.Write easy program, which will display current date and time.

**sudo nano python\_date.py**

**from datetime import date**

**today = date.today()**

**print("Today's date:", today)**

2.Write python program, which will accept comma-separated numbers, and then it should write tuple and list of them:

**values = input("Input some comma seprated numbers : ")**

**list = values.split(",")**

**tuple = tuple(list)**

**print('List : ',list)**

**print('Tuple : ',tuple)**

**Input some comma seprated numbers : 1,2,7,43,9**

**List : ['1', '2', '7', '43', 9]**

**Tuple : ('1', '2', '7', '43', 9)**

3.Write python program, which will askfile name. File should be read, and only even lines should be shown.

**i = 1**

**f = open('file')**

**for line in f.readlines():**

**if i % 2 == 0 :**

**print line**

**i += 1**

4.Write python program, which should read htmldocument, parse it, and showit’s title.

from html.parser import HTMLParser

**class MyHTMLParser(HTMLParser):**

**def handle\_starttag(self, tag, attrs):**

**print("Encountered a start tag:", tag)**

**def handle\_endtag(self, tag):**

**print("Encountered an end tag :", tag)**

**def handle\_data(self, data):**

**print("Encountered some data :", data)**

**parser = MyHTMLParser()**

**parser.feed('<html><head><title>Test</title></head>'**

**'<body><h1>Parse me!</h1></body></html>')**

The output will then be:

Encountered a start tag: html

Encountered a start tag: head

Encountered a start tag: title

Encountered some data : Test

Encountered an end tag : title

Encountered an end tag : head

Encountered a start tag: body

Encountered a start tag: h1

Encountered some data : Parse me!

Encountered an end tag : h1

Encountered an end tag : body

Encountered an end tag : html

5.Write pythonprogram, which will parse user’s text, and replace some emotions with emoji’s (Look: pip install emoji)

**def main():**

**sentence = input("Input a Sentence: ")**

**convert(sentence)**

**print(sentence)**

**def convert():**

**emo1 = ":)"**

**emo2 = ":("**

**emo1.replace(":)", "🙂")**

**emo2.replace(":(", "🙁")**

**main()**

6.Write program, that will show basic PC information (OS, RAM amount, HDD’s, andetc.)

**import os**

**mem=str(os.popen('free -t -m').readlines())**

**"""**

**Get a whole line of memory output, it will be something like below**

**[' total used free shared buffers cached\n',**

**'Mem: 925 591 334 14 30 355\n',**

**'-/+ buffers/cache: 205 719\n',**

**'Swap: 99 0 99\n',**

**'Total: 1025 591 434\n']**

**So, we need total memory, usage and free memory.**

**We should find the index of capital T which is unique at this string**

**"""**

**T\_ind=mem.index('T')**

**"""**

**Than, we can recreate the string with this information. After T we have,**

**"Total: " which has 14 characters, so we can start from index of T +14**

**and last 4 characters are also not necessary.**

**We can create a new sub-string using this information**

**"""**

**mem\_G=mem[T\_ind+14:-4]**

**"""**

**The result will be like**

**1025 603 422**

**we need to find first index of the first space, and we can start our substring**

**from from 0 to this index number, this will give us the string of total memory**

**"""**

**S1\_ind=mem\_G.index(' ')**

**mem\_T=mem\_G[0:S1\_ind]**

**"""**

**Similarly we will create a new sub-string, which will start at the second value.**

**The resulting string will be like**

**603 422**

**Again, we should find the index of first space and than the**

**take the Used Memory and Free memory.**

**"""**

**mem\_G1=mem\_G[S1\_ind+8:]**

**S2\_ind=mem\_G1.index(' ')**

**mem\_U=mem\_G1[0:S2\_ind]**

**mem\_F=mem\_G1[S2\_ind+8:]**

**print 'Summary = ' + mem\_G**

**print 'Total Memory = ' + mem\_T +' MB'**

**print 'Used Memory = ' + mem\_U +' MB'**

**print 'Free Memory = ' + mem\_F +' MB'**