Question 1:

A- If you have two lists, L1=['HTTP','HTTPS','FTP','DNS'] L2=[80,443,20,53], convert it to generate this dictionary d={'HTTP':80,'HTTPS':443,'FTP':20,'DNS':53 }

uni.py

```
1  l1 = ["HTTP", "HTTPS", "FTP" , "DNS"]
2  l2 = ["80", "443", "20", "53"]
3  d = dict()
4  for i in range(len(l1)) :
5      d[l1[i]] = l2[i]
6  print(d)
7
```

موجه الأوامر

```
Microsoft Windows [Version 6.1.7601]
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C:\Users\FGC>cd Desktop

C:\Users\FGC\Desktop>cd python

C:\Users\FGC\Desktop\python>py uni.py
{'HTTP': '80', 'HTTPS': '443', 'FTP': '20', 'DNS': '53'}

C:\Users\FGC\Desktop\python>
```

B- Generate and print a list of primary numbers from 1 to 1000.

uni1.py

```python
l = []
for i in range(1,1001) :
    flag = 0
    for j in range(2,i) :
        if i%j==0 :
            flag = 1
    if flag == 0 :
        l.append(i)
print(l)

```

موجه الأوامر

```
Microsoft Windows [Version 6.1.7601]
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C:\Users\FGC>cd Desktop

C:\Users\FGC\Desktop>cd python

C:\Users\FGC\Desktop\python>py uni1.py
[1, 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71,
73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127, 131, 137, 139, 149, 151, 157,
163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241,
251, 257, 263, 269, 271, 277, 281, 283, 293, 307, 311, 313, 317, 331, 337, 347,
349, 353, 359, 367, 373, 379, 383, 389, 397, 401, 409, 419, 421, 431, 433, 439,
443, 449, 457, 461, 463, 467, 479, 487, 491, 499, 503, 509, 521, 523, 541, 547,
557, 563, 569, 571, 577, 587, 593, 599, 601, 607, 613, 617, 619, 631, 641, 643,
647, 653, 659, 661, 673, 677, 683, 691, 701, 709, 719, 727, 733, 739, 743, 751,
757, 761, 769, 773, 787, 797, 809, 811, 821, 823, 827, 829, 839, 853, 857, 859,
863, 877, 881, 883, 887, 907, 911, 919, 929, 937, 941, 947, 953, 967, 971, 977,
983, 991, 997]

C:\Users\FGC\Desktop\python>
```
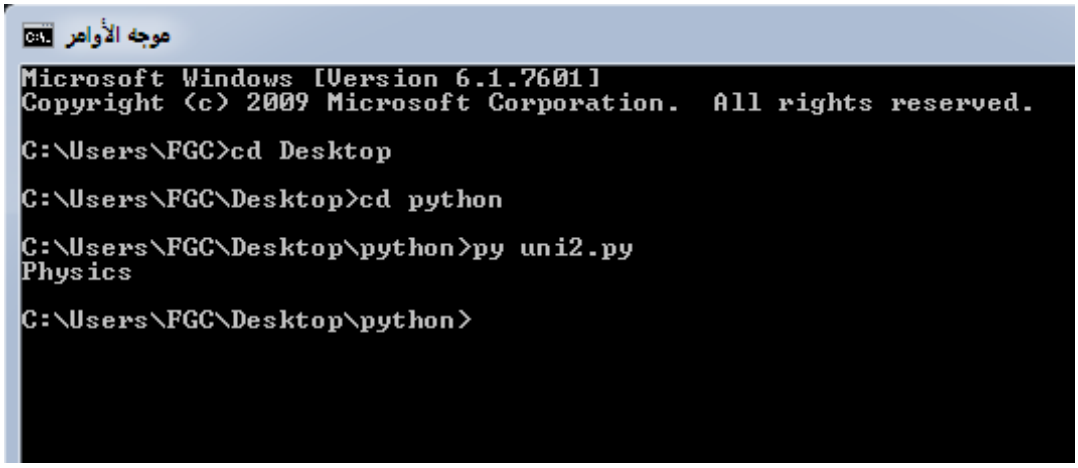
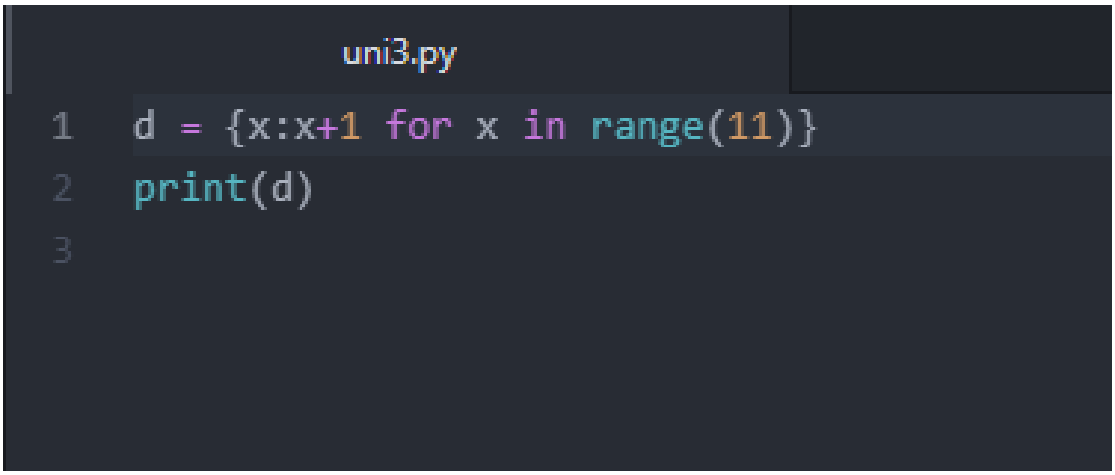

C- L=[‘Network’ , ’Math’ , ’Programming’, ‘Physics’ , ‘Music’] In this exercise, you will implement a Python program that reads the items of the previous list and identifies the items that starts with ‘Ph’ letter, then print it on screen.

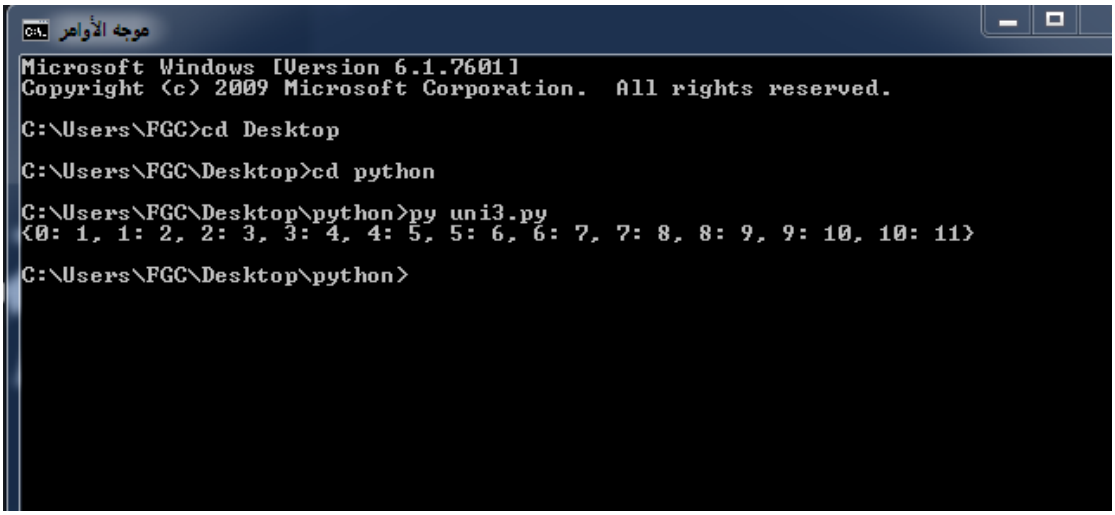
uni2.py

```python
l = ["Network", "Math", "Programming", "Physics", "Music"]
for i in l :
    if i.startswith("Ph") :
        print(i)

```




D- Using Dictionary comprehension, Generate this dictionary
d={1:2,2:3,3:4,4:5,5:6,6:7,7:8,8:9,9:10,10:11}



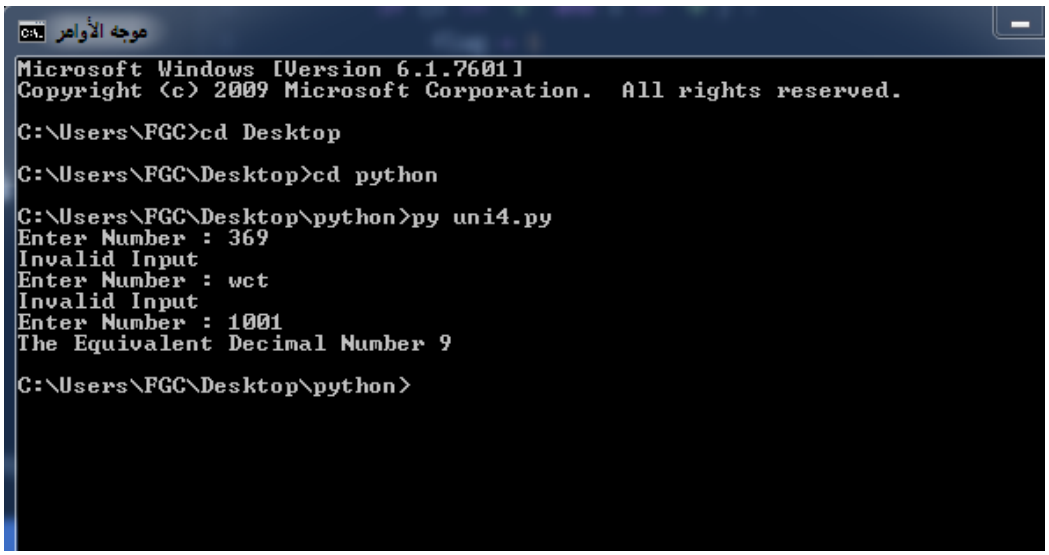




Question 2:

Convert from Binary to Decimal Write a Python program that converts a Binary number into its equivalent Decimal number. The program should start reading the binary number from the user. Then the decimal equivalent number must be calculated. Finally, the program must display the equivalent decimal number on the screen. Tips: solve input errors.

uni4.py

```python
while True :
    num = input("Enter Number : ")
    flag = 0
    for i in num :
        if (i != "1" and i != "0") :
            flag = 1
    if flag == 1 :
        print("Invalid Input ")
    if flag == 0 :
        break
j = 1
dec_num = 0
for i in num :
    d = int(i) * 2**(len(num)-j)
    dec_num = dec_num + d
    j += 1
print("The Equivalent Decimal Number",dec_num)

```




Question 3:

Working with Files" Quiz Program" Type python quiz program that takes a text or json or csv file as input for (20 (Questions, Answers)). It asks the questions and finally computes and prints user results and store user name and result in separate file csv or json file.

uni5.py

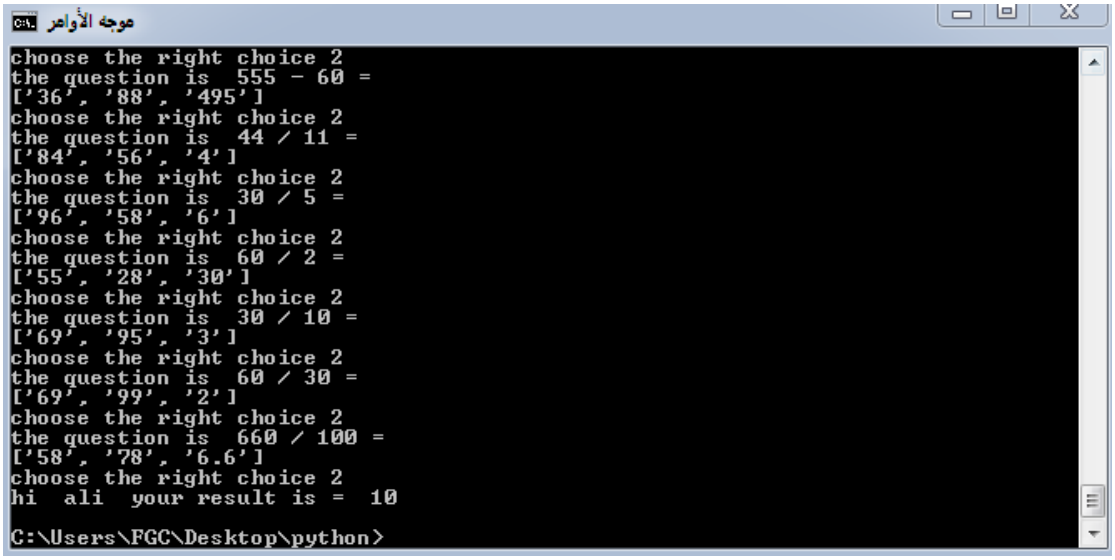
```
ofile = open('data1.txt' , 'r')
name = input("Enter Your Name : ")
result = 0
j = 0
for i in ofile :
    res = i.rstrip().split(',')
    break
for i in ofile :
    y = i.rstrip().split(',')
    print("the question is " , y[0])
    print(y[1:4])
    ans = input("choose the right choice ")
    if ans == res[j] :
        result = result + 5
    j = j + 1
print("hi ",name ," you got ", result," from 100 ")
ofile.close()
orfile = open('res.txt' , 'w')
d = {"Student's Name ", name ," and its Result is " ,str(result)}
orfile.writelines(d)
orfile.close()

```

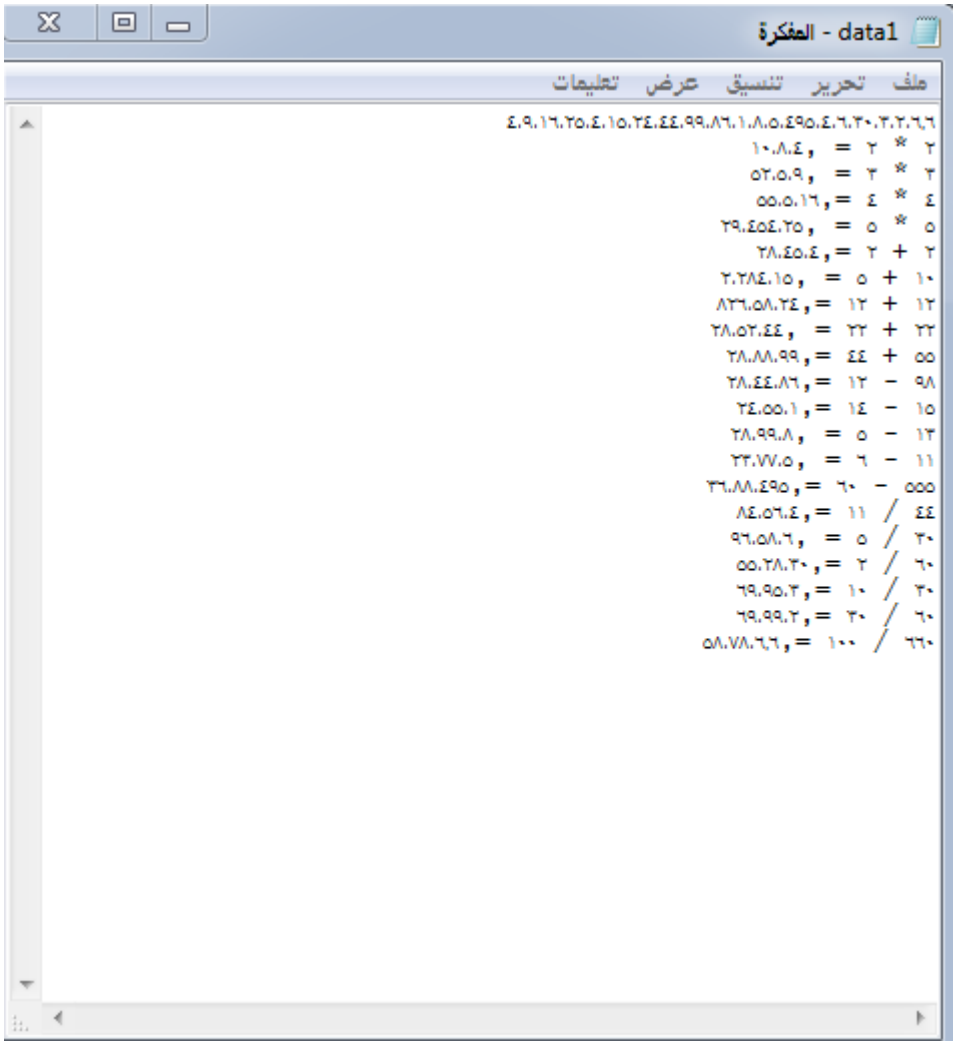
موجه الأوامر

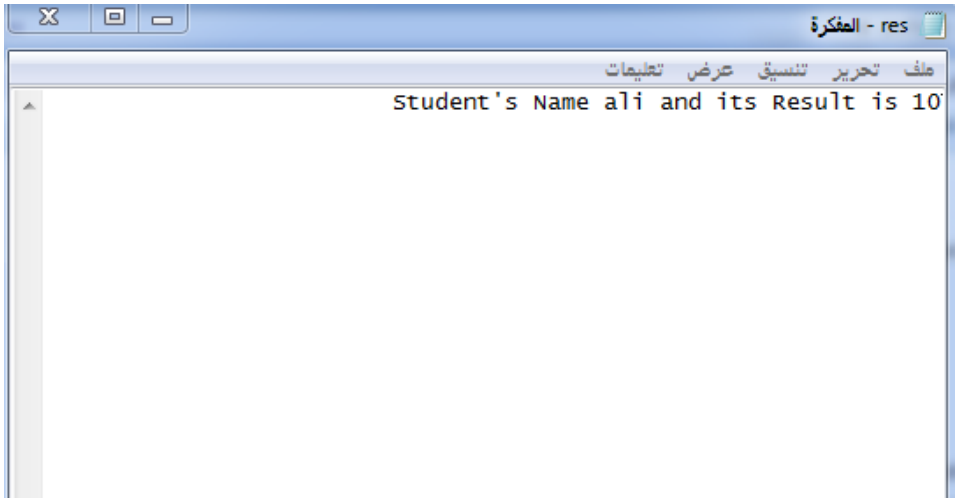
```
C:\Users\FGC\Desktop\python>py uni4.py
Enter Your Name : ali
the question is  2 * 2 =
['10', '8', '4']
choose the right choice 4
the question is  3 * 3 =
['52', '5', '9']
choose the right choice 4
the question is  4 * 4 =
['55', '5', '16']
choose the right choice 2
the question is  5 * 5 =
['29', '454', '25']
choose the right choice 2
the question is  2 + 2 =
['28', '45', '4']
choose the right choice 2
the question is  10 + 5 =
['2', '284', '15']
choose the right choice 2
the question is  12 + 12 =
['826', '58', '24']
choose the right choice 2
the question is  22 + 22 =
```

موجه الأوامر

```
the question is  22 + 22 =
['28', '52', '44']
choose the right choice 2
the question is  55 + 44 =
['28', '88', '99']
choose the right choice 2
the question is  98 - 12 =
['28', '44', '86']
choose the right choice 2
the question is  15 - 14 =
['24', '55', '1']
choose the right choice 2
the question is  13 - 5 =
['28', '99', '8']
choose the right choice 22
the question is  11 - 6 =
['23', '77', '5']
choose the right choice 2
the question is  555 - 60 =
['36', '88', '495']
choose the right choice 2
the question is  44 / 11 =
['84', '56', '4']
choose the right choice 2
the question is  30 / 5 =
```


موجه الأوامر
choose the right choice 2
the question is  555 - 60 =
['36', '88', '495']
choose the right choice 2
the question is  44 / 11 =
['84', '56', '4']
choose the right choice 2
the question is  30 / 5 =
['96', '58', '6']
choose the right choice 2
the question is  60 / 2 =
['55', '28', '30']
choose the right choice 2
the question is  30 / 10 =
['69', '95', '3']
choose the right choice 2
the question is  60 / 30 =
['69', '99', '2']
choose the right choice 2
the question is  660 / 100 =
['58', '78', '6.6']
choose the right choice 2
hi  ali  your result is =  10
C:\Users\FGC\Desktop\python>


data1 - المفكرة
ملف تحرير تنسيق عرض تعليمات
٤,٩,١٦,٢٥,٤,١٥,٢٤,٤٤,٩٩,٨٦,١,٨,٥,٤٩٥,٤,٦,٣٠,٣,٢,٦,٦
٢ * ٢ = ١٠,٨,٤,
٣ * ٣ = ٥٢,٥,٩,
٤ * ٤ = ٥٥,٥,١٦,
٥ * ٥ = ٢٩,٤٥,٢٥,
٢ + ٢ = ٢٨,٤٥,٤,
١٠ + ٥ = ٢,٢٨,١٥,
١٢ + ١٢ = ٨٢٦,٥٨,٢٤,
٢٢ + ٢٢ = ٢٨,٥٢,٤٤,
٥٥ + ٤٤ = ٢٨,٨٨,٩٩,
٩٨ - ١٢ = ٢٨,٤٤,٨٦,
١٥ - ١٤ = ٢٤,٥٥,١,
١٣ - ٥ = ٢٨,٩٩,٨,
١١ - ٦ = ٢٣,٧٧,٥,
٥٥٥ - ٦٠ = ٣٦,٨٨,٤٩٥,
٤٤ / ١١ = ٨٤,٥٦,٤,
٣٠ / ٥ = ٩٦,٥٨,٦,
٦٠ / ٢ = ٥٥,٢٨,٣٠,
٣٠ / ١٠ = ٦٩,٩٥,٣,
٦٠ / ٣٠ = ٦٩,٩٩,٢,
٦٦٠ / ١٠٠ = ٥٨,٧٨,٦,٦,


res - المفكرة
ملف تحرير تنسيق عرض تعليمات
Student's Name ali and its Result is 10