

Syrian Arab Republic

Lattakia - Tishreen University

Department of Communication and
electrical engineering

5th , Network Programming : Homework
No1



الجمهورية العربية السورية

اللاذقية - جامعة تشرين

كلية الهندسة الكهربائية والميكانيكية

قسم هندسة الاتصالات والالكترونيات

السنة الخامسة: وظيفة 1 برمجة شبكات

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Question 1: Python Basics?

A-

الكود:

```
graduated_students=['mahmoud','sara','hasan','issa',  
'karam']  
sname=input('enter student name: ')  
if sname in graduated_students:  
    print(sname,'is graduated.')  
else:  
    print(sname,'is not graduated.')
```

الخرج:

```
enter student name: mahmoud  
mahmoud is graduated.
```

B-

الكود:

```
#list comprehension  
odd_nums=[x for x in range(1,1000) if x%2!=0]  
print(odd_nums)
```

الخرج:

```
[1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 4  
1, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79  
, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113,
```

115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 701, 703, 705, 707, 709, 711, 713, 715, 717, 719, 721, 723, 725, 727, 729, 731, 733, 735, 737, 739, 741, 743, 745, 747, 749, 751, 753, 755, 757, 759, 761, 763, 765, 767, 769, 771, 773, 775, 777, 779, 781, 783, 785, 787, 789, 791, 793, 795, 797, 799, 801, 803, 805, 807, 809, 811, 813, 815, 817, 819, 821, 823, 825, 827, 829, 831, 833, 835, 837, 839, 841, 843, 845, 847, 849, 851, 853, 855, 857, 859, 861, 863, 865, 867, 869, 871, 873, 875, 877, 879, 881, 883, 885, 887, 889, 891, 893, 895, 897, 899, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, 945, 947, 949, 951, 953, 955, 957, 959, 961, 963, 965, 967, 969, 971, 973, 975, 977, 979, 981, 983, 985, 987, 989, 991, 993, 995, 997, 999]

C-

الكود:

```
L=['Network','Math','Programming','Physics','Music']
#len() method to make range equal to all items in list
for i in range(len(L)):
    #startswith() method to test if the item start with 'P'
    if L[i].startswith('P'):
        print(L[i])
```

الخرج:

Programming
Physics

D:

الكود:

```
#dictionary comprehension
d={x:x**2 for x in range(1,11)}
print(d)
```

الخرج:

```
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100}
```

Question 2: Convert from decimal to binary

الكود:

```
print('WELCOME TO MY DECIMAL CONVERTER TO BINARY
PROGRAM')
#make empty list to add the binary number to it
binary=[]
#while loop to make the programm run more one time
while True:
    d=input('enter decimal number: ')
    #test input if digit or not
    if d.isdigit():
        #if digit convert from str to int
        dec=int(d)
    else:
        print('try again')
        continue
    #decimal to binary algorithm
    while dec!=0:
        # append 0 or 1 to list each time
```

```

        binary.append(dec%2)
        dec//=2
    #reverse the list
    binary.reverse()
    #this for to print the result in beautiful shape
    for i in binary:
        print(i,end='')
    s=input('\ndo you want to continue? if yes
enter y for no enter anything: ')
    if s=='y':
        #clear list items to anothor try
        binary.clear()
    else:
        break

```

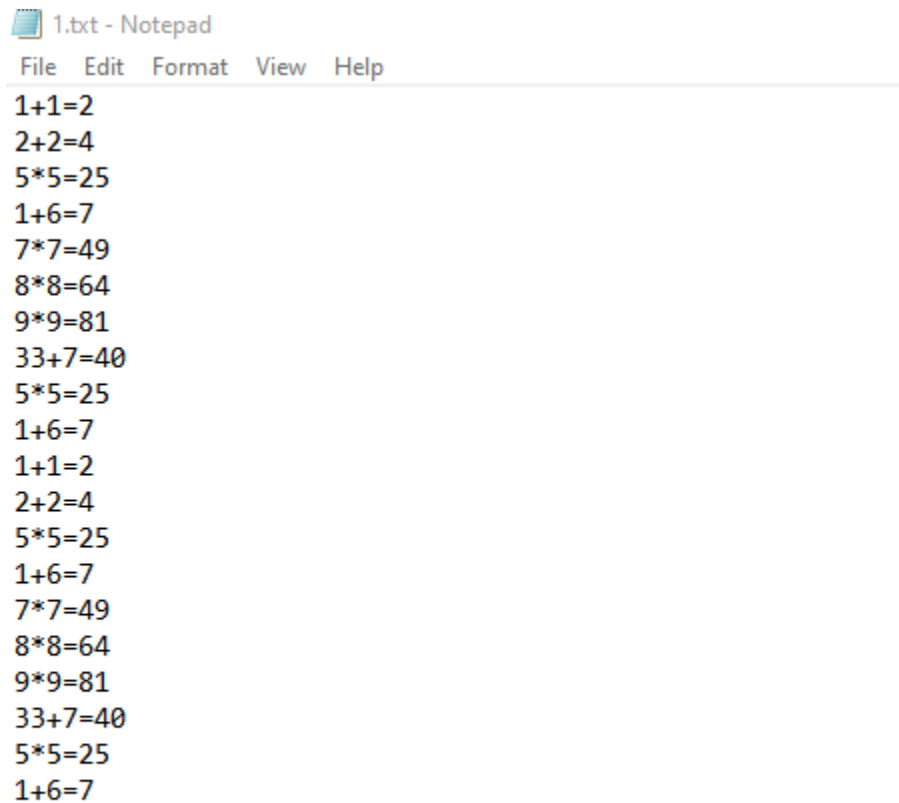
الخرج:

```

WELCOME TO MY DECIMAL CONVERTER TO BINARY PROGRAM
enter decimal number: 10
1010
do you want to continue? if yes enter y for no enter anything: y
enter decimal number: 50
110010
do you want to continue? if yes enter y for no enter anything: y
enter decimal number: 31
11111
do you want to continue? if yes enter y for no enter anything: n

```

Question 3: Working with Files” Quiz Program”



my input file1 Figure

الكود:

```
infilename='E:\\1.txt'
outfilename='E:\\2.txt'
#open two files, infile to read quistions and answers
#outfile to write the result in new file
infile=open(infilename,'r')
outfile=open(outfilename,'w')
#questions number counter
qnum=0
#true answers number counter
truenum=0
```

```

username=input('enter your name: ')
for i in infile:
    qnum+=1
    print(i[:i.index('=')+1])
    answer=input('enter answer: ')
    outfile.write('\n'+i+'\n'+answer)
    if answer == i[i.index('=')+1:].rstrip():
        truenum+=1
print(truenum,'true from',qnum)
outfile.write('\n'+username+'\n')
outfile.write(str(truenum)+'true from'+str(qnum))
infile.close()
outfile.close()

```

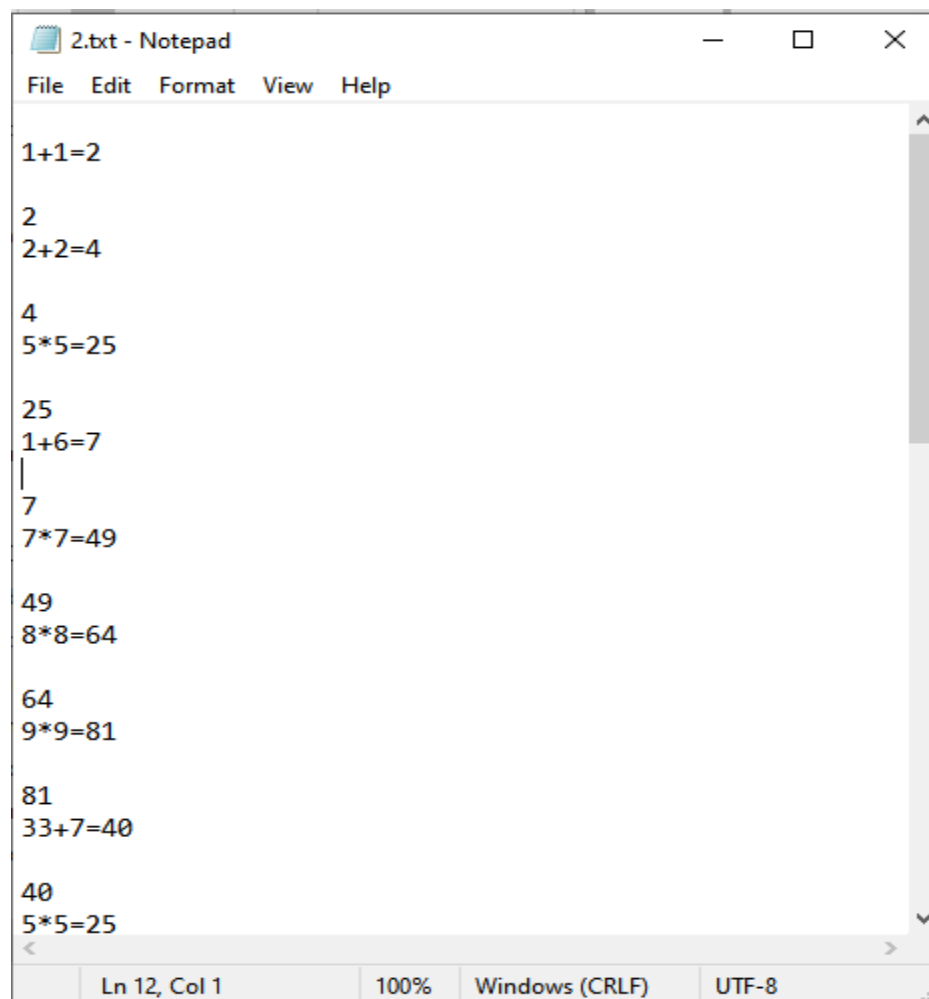
الخرج:

```

enter your name: mahmoud
1+1=
enter answer: 2
2+2=
enter answer: 4
5*5=
enter answer: 25
1+6=
enter answer: 7
7*7=
enter answer: 49
8*8=
enter answer: 64
9*9=
enter answer: 81
33+7=
enter answer: 40
5*5=
enter answer: 25
1+6=
enter answer: 7
1+1=
enter answer: 2
2+2=
enter answer: 4
5*5=
enter answer: 25
1+6=
enter answer: 7
7*7=
enter answer: 49

```

8*8=
enter answer: 2
9*9=
enter answer: 2
33+7=
enter answer: 2
5*5=
enter answer: 2
1+6=
enter answer: 2
15 true from 20



my output file2 Figure

```
2.txt - Notepad
File Edit Format View Help
5*5=25
25
1+6=7
7
7*7=49
49
8*8=64
2
9*9=81
2
33+7=40
2
5*5=25
2
1+6=7
2
mahmoud
15true from20
Ln 12, Col 1 100% Windows (CRLF) UTF-8
```

my output file3 Figure