

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 والإلكترونيات

السنة الخامسة: وظيفة ١ برمجة شبكات

Name: _____, Number: _____, Submitted To GitHub: _____

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الرقم الجامعي: 2187

السنة: الخامسة

برمجة الشبكات الوظيفة الأولى

بإشراف الدكتور: مهند عيسى

First Network Programming Homework

Question 1: Python Basics?

A-Define a list that contain the names of graduated students” 5 students at least”:

Create a program that accept student name and prints if the user is graduated or not.

```
homewok1 a.py - C:/Users/NewTech/Desktop/homewok1 a.py (3.7.2)
File Edit Format Run Options Window Help
my_list = ["Nada","Halla","Rahaf","Ali","Hassan"]
name=input("Enter your name: ")
i=0
for my_list[i] in my_list:
    if name==my_list[i]:
        print("The user is graduated")
        break
    else:
        print("the user is not graduated")
    i=i+1

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 23:09:28) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/NewTech/Desktop/homewok1 a.py =====
Enter your name: Nada
the user is graduated
>>>
===== RESTART: C:/Users/NewTech/Desktop/homewok1 a.py =====
Enter your name: zena
the user is not graduated
the user is not graduated
the user is not graduated
the user is not graduated
the user is not graduated
>>>
===== RESTART: C:/Users/NewTech/Desktop/homewok1 a.py =====
Enter your name: Rahaf
the user is not graduated
the user is not graduated
the user is graduated
>>>
```

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تم إنشاء قائمة بأسماء الطلاب المتخرجين، في حال إدخال أي اسم غير موجود في القائمة فهو طالب غير متخرج ويتم طباعة النتيجة على الشاشة.

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

Tips: "List Comprehension"

```
homewok1.py - C:/Users/NewTech/Documents/homewok1.py (3.7.2)
File Edit Format Run Options Window Help
list1 = list(range(1,1000))
only_odd = [num for num in list1 if num % 2 == 1]
print(only_odd)
```

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 23:09:28) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/NewTech/Documents/homewok1.py =====
[1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41,
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]
>>>
```



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قائمة الأعداد من 1 إلى 1000 ، لطباعة الأعداد الفردية فقط شرط باقي قسمة
العدد على 2 يساوي 1.

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 'P' letter**, then print it on screen.

Tips: using loop, list 'len ()' method

```

C.py - C:\Users\NewTech\Desktop\homework 1\C.py (3.7.2)
File Edit Format Run Options Window Help
L = ["Networking","Math","Pogramming","Physics","Music"]
for i in range (len(L)):
    if L[i][0]=="P":
        print (L[i])

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
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Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\NewTech\Desktop\homework 1\C.py =====
Programming
Physics
>>>
  
```

إنشاء قائمة بأسماء المواد مع شرط أول حرف من كل اسم في القائمة والذي يبدأ بحرف
"P" يتم طباعة النتيجة على الشاشة.

D: Using Dictionary comprehension, Generate this dictionary d={1:1,2:4,3:9,4:16,5:25,6:36,7:42,8:64,9:81,10:100}



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```
homewok1.py - C:/Users/NewTech/Documents/homewok1.py (3.7.2)
File Edit Format Run Options Window Help

square_dict = { num:num*num for num in range (1,11)}
print(square_dict)

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help

Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 23:09:28) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/NewTech/Documents/homewok1.py =====
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100}
>>>
```

إنشاء القاموس: العدد*العدد نفسه على المجال من 1 إلى 10 .

Question 2: Convert from decimal to binary

Write a Python program that **converts a decimal number into its equivalent binary number**.

The program should start reading the decimal number from the user. Then the binary equivalent number must be calculated. Finally, the program must display the equivalent binary number on the screen.

Tips: use empty list to hold binary number, use loop, use % operator, use // operator, use list append method, reverse the list.

تم إجراء العمليات الحسابية لتحويل الرقم العشري إلى ثنائي وباقي قسمة العدد العشري على 2 تعبر عن العدد الثنائي الذي تم الاحتفاظ به بالقائمة الفارغة التي تم تعريفها بدايةً.

وتمت طباعة النتيجة عن طريق استدعاء التابع format() الذي يأخذ قيمتي الرقم الثنائي والعشري

والتابع append() الذي يضيف القيمة المدخلة له إلى القائمة والتابع reverse() يقوم بعكس القيمة الموجودة في القائمة.

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```
File Edit Format Run Options Window Help
decimal = int(input("Enter a decimal number : "))
binary = 0
i= 0
temp = decimal
list_binary=[]
while(temp > 0):
    binary = ((temp%2)*(10**i)) + binary
    t1=temp%2
    temp = int(temp//2)
    i += 1
print("Binary of {x} is : {y}".format(x=decimal,y=binary))
list_binary.append(t1)
print(list_binary)
list_binary.reverse()
print(list_binary)
```

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 23:09:28) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\NewTech\Desktop\homework 1\السؤال الثاني.py =====
Enter a decimal number : 50
Binary of 50 is : 110010
[1]
[1]
>>>
===== RESTART: C:\Users\NewTech\Desktop\homework 1\السؤال الثاني.py =====
Enter a decimal number : 30
Binary of 30 is : 11110
[1]
[1]
>>>
```

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.

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Notes

- Homework is accepted as **well explained Pdf & “Nicely Formatted Code”** "You can do all job in one notebook then print as pdf or “copy and paste” on word document “use” then convert into pdf with extra info "
- You have to show:
Question number >> Question itself >> your answer code with explanations > your Result “you can use this doc as template”
- You Have to Show code execution as Screenshots from your laptop or phone”.
- Apply your full name and number, Homework number to pdf.
- Similar Solutions will **rejected** and not accepted.
- The Homework is accepted until the date of "12/5/2022", if after >> mark=mark- (current_date -12/5/2022)*0.3
- An Extra Marks if you upload your code to your **GitHub Account**, “PDF + Code”

```
target_words = set()

with codecs.open(path, 'r', encoding='utf-8') as f:
    lines = f.read().split('\n')

    for l, line in enumerate(lines[0:len(lines)-4]):
        print(l, '>>>', line)
        if line.isdigit():
            print(lines[l])
            mylist = [lines[l], lines[l+1], lines[l+2], lines[l+3], '\n']
            all_texts.append(mylist)
            print(mylist)
            print('*****')

try:
    os.mkdir('out', 0o666)
except OSError as error:
    pass
```