

Syrian Arab Republic

Lattakia - Tishreen University

Department of Communication and  
electrical engineering

5<sup>th</sup> , Network Programming: Homework  
No1



الجمهورية العربية السورية

اللاذقية - جامعة تشرين

كلية الهندسة الكهربائية والميكانيكية

قسم هندسة الاتصالات والالكترونيات

السنة الخامسة: وظيفة 1 برمجة شبكات

Name: Mahran Moris Rezk

Collage number: 2302

GitHub link: <https://github.com/Mahran1998/First-python-homework.git>

### 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.

```
In [2]: # Q-1
# A-

grad_std = ["maiky", "jack", "mahran", "selena", "christena"]
name = input("inter student name: ")
if name in grad_std:
    print("the student " + name + " is graduated")
else :
    print("the student " + name + "is not graduated")

inter student name: mahran
the student mahran is graduated
```

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

**Tips:** "List Comprehension"

```
python_work_station Last Checkpoint: Last Wednesday at 6:50 AM (unsaved changes)
File Edit View Insert Cell Kernel Widgets Help Trusted Python 3
[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]
```

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

```
In [5]: # Q-1
# C-

L = ['Network', 'Math', 'Programming', 'Physics', 'Music']
char='P'
def find_p(List,char):
    for i in List:
        if char in i:
            print(i)
find_p(L,'P')

Programming
Physics
```

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D: Using Dictionary comprehension, Generate this dictionary

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

```
In [6]: # Q-1
# D-
d={1:0,2:0,3:0,4:0,5:0,6:0,7:0,8:0,9:0,10:0}
for key, value in d.items():
    d[key]=value*value
print(d)

{1: 0, 2: 0, 3: 0, 4: 0, 5: 0, 6: 0, 7: 0, 8: 0, 9: 0, 10: 0}
```

## 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.

```
In [7]: # Q-2
binary=[]
decimal = int(input("inter your decimal number: "))
while(decimal>0):
    if decimal % 2 == 0:
        binary.append(0)
    else:
        binary.append(1)
    decimal //= 2
binary.reverse()
print("the equivalent binary number is: " + str(binary))

inter your decimal number: 10
the equivalent binary number is: [1, 0, 1, 0]
```



### 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.

```
In [3]:
# Q-3

def new_file(file_name,ques_ans):
    ques_ans=[line+"\n" for line in ques_ans]
    Write.writelines(ques_ans)
    Write.close()

quest_list = ["Q1: What is the author name of the book 'Age Of Renaissance'? : Abn-alnafes",
              "Q2: What is the author name of the book 'The girl on the train'? : Paola Hokens",
              "Q3: What is the author name of the book 'In furiously Happy'? : Jeny Loson",
              "Q4: What is the author name of the book 'The library at mount cha'? : Paola Hokens",
              "Q5: What is the author name of the book 'Stranger than we can imagine'? : John Higes",
              "Q6: What is the author name of the book 'Humans of Newyork'? : Brandon Stanton",
              "Q7: What is the author name of the book 'The girl on the train'? : Paola Hokens",
              "Q8: What is the author name of the book 'I take you'? : Eliza Kennedy",
              "Q9: What is the author name of the book 'Our solus at Night'? : Kint haroph",
              "Q10: What is the author name of the book 'Nimona'? : Noele Stevenson"]

#new_file("Ques_Ans_file.text" , quest_list)

def work_file(file_name):
    Read = open(file_name , "r")
    list_Read = [line.rstrip().split(";") for line in Read]
    return list_Read
    Read.close()

quest_list = work_file("Ques_Ans_file.text")
```

```
Read.close()

quest_list = work_file("Ques_Ans_file.text")

print("Hello and welcom to my game puzzle :) " + "\n" + "press enter to start" + "\n")
user_name = input("enter your name: ")
user_name_file = open("user_result.text", "w")
user_name_file.write(user_name)
user_name_file = open("user_result.text", "a")

Score = 0

for i in range(0,11):
    ans = input(quest_list[i][0])
    if ans == quest_list[i][1]:
        Score += 1
        user_name_file.write("your anwser is correct!!".format(quest_list[i][0] , quest_list[i][1]))
    else:
        user_name_file.write("your anwser is Wrong!! and the coreccy anwser is: ".format(quest_list[i][0] , quest_list[i][1]))

user_name_file.write("your final score is: ".format(Score))
user_name_file.close()
print(open("user_result.text", "r").read())
user_name_file.close()

In [ ]:
```

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```
enter your name: mahran
Hello and welcom to my game puzzle: )
Q1: What is the author name of the book 'Age Of Renascence'? :Abn-alfafes
Q2: What is the author name of the book 'The girl on the train'? :Paola Hokens
Q3: What is the author name of the book 'In furiously Happy'? :Jeny Loson
Q4: What is the author name of the book 'The library at mount cha'? :Paola Hokens
Q5: What is the author name of the book 'Stranger than we can imagine'? :John Higes
Q6: What is the author name of the book 'Humans of Newyork'? :Brandon Stanton
Q7: What is the author name of the book 'The girl on the train'? :Paola Hokens
Q8: What is the author name of the book 'I take you'? :Eliza Kennedy
Q9: What is the author name of the book 'Our solus at Night'? :Kint haroph
Q10: What is the author name of the book 'Nimona'? :Noele Stevenson
mahran your anwser is correct!! your anwser is correct!! your anwser is correct!! your anwser is correct!! your anwser is correct!!
our anwser is correct!! your anwser is correct!! your anwser is Wrong!! and the corecny anwser is: your anwser is correct!! your a
nwser is correct!! your final score is:
```