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Lattakia - Tishreen University

Department of Communication and
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5th , Network Programming : Homework
No1



الملاذقية - جامعة تشرين

كلية الهندسة الكهربائية والميكانيكية

قسم هندسة الاتصالات والإلكترونيات

السنة الخامسة: وظيفة ١ برمجة شبكات

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.

```
Microsoft Word - Network_Programming_Homework_No1_2022.docx
File Edit Format Run Options Window Help
الاول Aa.py - C:/Users/محمد/Documents/New folder/الاول Aa.py (3.10.4)
group=['hiba','aya','reem','yousef','ibrahem']
name=input('enter student name')
for i in range(5):
    if name in group:
        print(name,'the user is graduated')
        break
    else:
        print('the user is failed')
        break

IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/محمد/Documents/New folder/test.py =====
>>> rrr
>>>
===== RESTART: Shell =====
>>>
===== RESTART: C:/Users/محمد/Documents/New folder/الاول Aa.py =====
>>> enter student name
>>> the user is failed
>>> hiba
>>> Traceback (most recent call last):
>>>   File "<pyshell#1>", line 1, in <module>
>>>     hiba
>>> NameError: name 'hiba' is not defined
>>>
===== RESTART: C:/Users/محمد/Documents/New folder/الاول Aa.py =====
>>> enter student namehiba
>>> hiba the user is graduated
>>>
```



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

```
File Edit Format Run Options Window Help
group2=[x for x in range(1000) if x%2!=0]
print(group2)
```

```
===== RESTART: C:/Users/محمد/Documents/New folder/السؤال الأول b.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]
```

Tips: "List Comprehension"

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

```
File Edit Format Run Options Window Help
L=['network', 'math', 'programming', 'physical', 'music']
for i in range(len(L)):
    if L[i][0]=='p':
        print(L[i])
```

```
===== RESTART: C:/Users/محمد/Documents/New folder/السؤال الأول c.py =====
programming
physical
```

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D: Using Dictionary comprehension, Generate this dictionary $d=\{1:1,2:4,3:9,4:16,5:25,6:36,7:49,8:64,9:81,10:100\}$

```
d.py - C:/Users/محمد/Documents/New folder/الاول d.py (3.10.4)
File Edit Format Run Options Window Help
d={x:x**2 for x in range(1,11)}
print(d)

IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
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>>>
===== RESTART: C:/Users/محمد/Documents/New folder/الاول d.py =====
{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

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.

```
السؤال الثاني.py - C:/Users/محمد/Documents/New folder/السؤال الثاني.py (3.10.4)
File Edit Format Run Options Window Help
H=int(input("H="))
t=res=0
while H!=0:
    res=res+(H%2)*(10**t)
    H=H//2
    t+=1
print(f"the binary number= (res)")

IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/محمد/Documents/New folder/السؤال الثاني.py =====
H=5
the binary number= (res)
>>>
```

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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.

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 >> $\text{mark} = \text{mark} - (\text{current_date} - 12/5/2022) * 0.3$
- An Extra Marks if you upload your code to your **GitHub Account**, "PDF + Code"

SS

```
import random
def quiz():
    score=0
    questionsRight=0
    fileName='e:\\hh.csv'
    quizFile = open(fileName,"r")
    quizData = quizFile.readlines()
    random.shuffle(quizData)
    questionno=1
    for i in range(20):
        x = quizData[i].strip()
        data = x.split(",")
        question = data[0]
        CorrectAnswer = data[1]

        print("Question #",questionno)
        print(question)
        answer = input("What is your answer? ")
        if answer == CorrectAnswer:
            print("Correct!")
            score=score+1
            questionsRight=questionsRight+1
            questionno = questionno+1
        else:
            print("Incorrect.")
            print("Correct answer should be: "+CorrectAnswer)
            questionno = questionno+1
        print()

    totalScore = (score / 10) * 100
    print("You got ",score," questions right, and a score of ",totalScore,"%")
quiz()
```

Incorrect.
Correct answer should be: Istanbul

Question # 15
What is the change of a substance from a gaseous state to a liquid state called?
What is your answer? .
Incorrect.
Correct answer should be: condensation

Question # 16
what is the capital of lebanon?
What is your answer? .
Incorrect.
Correct answer should be: beirut

Question # 17
what is the capital of syria?
What is your answer? .
Incorrect.
Correct answer should be: damascuse

Question # 18
How long can a scorpion live without food or drink?
What is your answer? .
Incorrect.
Correct answer should be: four weeks

Question # 19
Be careful of the mean one if...?
What is your answer? 1
Incorrect.
Correct answer should be: I honored him

Question # 20
In what year did Al-Khwarizmi die?
What is your answer? 750 AD
Correct!

You got 1 questions right, and a score of 10.0 %.