

الاسم: مازن بهجت ساعد

الرقم الجامعي: ١٩٢١

رقم الوظيفة: ١

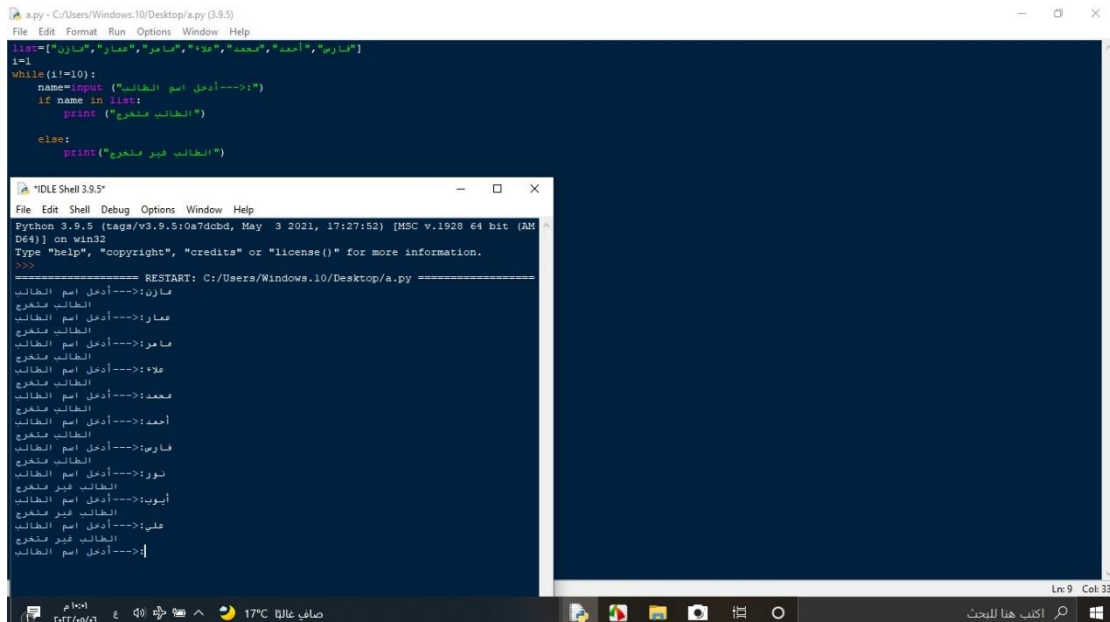
المادة: برمجة شبكات

First Network Programming Homework

Question 1:

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.



```
a.py - C:/Users/Windows.10/Desktop/a.py (3.9.5)
File Edit Format Run Options Window Help

names=["مازن","عمار","ماور","ملاو","محمد","أحمد","فارس","نور","أيوب","علي"]
i=1
while(i!=10):
    name=input("أدخل اسم الطالب:")
    if name in names:
        print("الطالب متخرج")
    else:
        print("الطالب غير متخرج")

===== RESTART: C:/Users/Windows.10/Desktop/a.py =====
مازن: أدخل اسم الطالب
الطالب متخرج
عمار: أدخل اسم الطالب
الطالب متخرج
ماور: أدخل اسم الطالب
الطالب متخرج
ملاو: أدخل اسم الطالب
الطالب متخرج
محمد: أدخل اسم الطالب
الطالب متخرج
أحمد: أدخل اسم الطالب
الطالب متخرج
فارس: أدخل اسم الطالب
الطالب متخرج
نور: أدخل اسم الطالب
الطالب غير متخرج
أيوب: أدخل اسم الطالب
الطالب غير متخرج
علي: أدخل اسم الطالب
الطالب غير متخرج
: أدخل اسم الطالب
```

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

Tips: "List Comprehension"

```
b.py - C:/Users/Windows.10/Desktop/b.py (3.9.5)
File Edit Format Run Options Window Help

list = [i for i in range(1,1000,2)]
print(list)

IDLE Shell 3.9.5
Python 3.9.5 (tags/v3.9.5:0a7dcb4, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:/Users/Windows.10/Desktop/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]
>>>
```

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/Windows.10/Desktop/c.py (3.9.5)
File Edit Format Run Options Window Help

L=['Network','Math','Programming','Physics','Music']
for m in range (len(L)):
    if L[m][0] == "P":
        print (L[m])

IDLE Shell 3.9.5
Python 3.9.5 (tags/v3.9.5:0a7dcb4, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:/Users/Windows.10/Desktop/c.py
Programming
Physics
>>>
```

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}

```

d=[]
i=0
while i<=9:
    i+=1
    d[i]=i*i
print(d)

```

```

Python 3.9.5 (tags/v3.9.5:0a7dcdb, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Windows.10/Desktop/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.

```

binary=[]
def dectobin(decimal):
    if(decimal > 0):
        dectobin((decimal//2))
        print(decimal%2,end='')
    decimal=int(input("أدخل الرقم العشري--->:"))
    dectobin(decimal)
    binary.append([1,2,3])
    print(binary)
    binary.append(8)
    print(binary)
    binary.reverse()
    print(binary)

```

```

===== RESTART: C:/Users/Windows.10/Desktop/Question2.py =====
أدخل الرقم العشري--->:9
1001[[1, 2, 3]]
[[1, 2, 3], 8]
>>>
===== RESTART: C:/Users/Windows.10/Desktop/Question2.py =====
أدخل الرقم العشري--->:7
111[[1, 2, 3]]
[[1, 2, 3], 8]
[[8, [1, 2, 3]]]
>>>
===== RESTART: C:/Users/Windows.10/Desktop/Question2.py =====
أدخل الرقم العشري--->:30
11110[[1, 2, 3]]
[[1, 2, 3], 8]
[[8, [1, 2, 3]]]
>>>

```

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.

```
Question3.py - C:\Users\Windows.10\Desktop\مجلد\Question3.py (3.9.3)
File Edit Format Run Options Window Help
import json
def Quiz():
    name=["masen","asoud"]
    score=[]
    i=0
    while(i<=1):
        mark=0
        student=input("ادخل اسم الطالب--->")+str(name[i])
        i+=1
        m1=input("السؤال الأول:")
        m2=input("السؤال الثاني:")
        m3=input("السؤال الثالث:")
        m4=input("السؤال الرابع:")
        m5=input("السؤال الخامس:")
        m6=input("السؤال السادس:")
        m7=input("السؤال السابع:")
        m8=input("السؤال الثامن:")
        m9=input("السؤال التاسع:")
        m10=input("السؤال العاشر:")
        m11=input("السؤال الحادي عشر:")
        m12=input("السؤال الثاني عشر:")
        m13=input("السؤال الثالث عشر:")
        m14=input("السؤال الرابع عشر:")
        m15=input("السؤال الخامس عشر:")
        m16=input("السؤال السادس عشر:")
        m17=input("السؤال السابع عشر:")
        m18=input("السؤال الثامن عشر:")
        m19=input("السؤال التاسع عشر:")
        m20=input("السؤال العشرون:")
        # (عني نري النتيجة فينتهي البرنامج)
        #a---> [الـ]
        #b---> [الـ]
        if m1=="a":
            mark+=1
        else:
            mark+=0
        if m2=="b":
            mark+=1
        else:
            mark+=0
        if m3=="a":
            mark+=1
        else:
            mark+=0
        if m4=="b":
            mark+=1
        else:
            mark+=0
        if m5=="a":
            mark+=1
        else:
            mark+=0
        if m6=="b":
            mark+=1
        else:
            mark+=0
        if m7=="a":
            mark+=1
        else:
            mark+=0
        if m8=="b":
            mark+=1
        else:
            mark+=0
        if m9=="a":
            mark+=1
        else:
            mark+=0
        if m10=="b":
            mark+=1
        else:
            mark+=0
        if m11=="a":
            mark+=1
        else:
            mark+=0
        if m12=="b":
            mark+=1
        else:
            mark+=0
        if m13=="a":
            mark+=1
        else:
            mark+=0
        if m14=="b":
            mark+=1
        else:
            mark+=0
        if m15=="a":
            mark+=1
        else:
            mark+=0
        if m16=="b":
            mark+=1
        else:
            mark+=0
        if m17=="a":
            mark+=1
        else:
            mark+=0
        if m18=="b":
            mark+=1
        else:
            mark+=0
        if m19=="a":
            mark+=1
        else:
            mark+=0
        if m20=="b":
            mark+=1
        else:
            mark+=0
    print("النتيجة هي:", mark)
```

```
Question3.py - C:\Users\Windows.10\Desktop\مجلد\Question3.py (3.9.3)
File Edit Format Run Options Window Help
# (عني نري النتيجة فينتهي البرنامج)
#a---> [الـ]
#b---> [الـ]
if m1=="a":
    mark+=1
else:
    mark+=0
if m2=="b":
    mark+=1
else:
    mark+=0
if m3=="a":
    mark+=1
else:
    mark+=0
if m4=="b":
    mark+=1
else:
    mark+=0
if m5=="a":
    mark+=1
else:
    mark+=0
if m6=="b":
    mark+=1
else:
    mark+=0
if m7=="a":
    mark+=1
else:
    mark+=0
if m8=="b":
    mark+=1
else:
    mark+=0
if m9=="a":
    mark+=1
else:
    mark+=0
if m10=="b":
    mark+=1
else:
    mark+=0
if m11=="a":
    mark+=1
else:
    mark+=0
if m12=="b":
    mark+=1
else:
    mark+=0
if m13=="a":
    mark+=1
else:
    mark+=0
if m14=="b":
    mark+=1
else:
    mark+=0
if m15=="a":
    mark+=1
else:
    mark+=0
if m16=="b":
    mark+=1
else:
    mark+=0
if m17=="a":
    mark+=1
else:
    mark+=0
if m18=="b":
    mark+=1
else:
    mark+=0
if m19=="a":
    mark+=1
else:
    mark+=0
if m20=="b":
    mark+=1
else:
    mark+=0
print("النتيجة هي:", mark)
```

```
Question3.py - C:\Users\Windows.10\Desktop\مجلد\Question3.py (3.9.3)
File Edit Format Run Options Window Help
mark+=0
if m5=="a":
    mark+=1
else:
    mark+=0
if m10=="b":
    mark+=1
else:
    mark+=0
if m11=="a":
    mark+=1
else:
    mark+=0
if m12=="b":
    mark+=1
else:
    mark+=0
if m13=="a":
    mark+=1
else:
    mark+=0
if m14=="b":
    mark+=1
else:
    mark+=0
if m15=="a":
    mark+=1
else:
    mark+=0
if m16=="b":
    mark+=1
else:
    mark+=0
if m17=="a":
    mark+=1
else:
    mark+=0
if m18=="b":
    mark+=1
else:
    mark+=0
if m19=="a":
    mark+=1
else:
    mark+=0
if m20=="b":
    mark+=1
else:
    mark+=0
print("النتيجة هي:", mark)
```

