



جامعة تشرين _ محافظة اللاذقية

كلية الهمك _ قسم الاتصالات

السنة الخامسة - برمجة شبكات

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الرقم الجامعي : 2225

First 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

```
Python 3.8.0 Shell
File Edit Shell Debug Options Window Help
Python 3.8.0 (tags/v3.8.0:fe919fd, Oct 14 2019, 19:37:50) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Windows.10/Desktop/QA1.py =====
Enter your name:rahaf
rahaf yes, you did It 
>>>
```

```
QA1.py - C:/Users/Windows.10/Desktop/QA1.py (3.8.0)
File Edit Format Run Options Window Help

studentsgraduat=['rahaf', 'ammar', 'manar', 'nour', 'jafar', 'rami']
graduatname=input('Enter your name:')
if graduatname in studentsgraduat :
    print (graduatname,'yes, you did It ', "\U0001F070")
else:
    print (graduatname, 'no, betterluck', "\U0001F620")
```

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

Tips: “List Comprehension ?

```

QA1.py - C:/Users/Windows.10/Desktop/QA1.py (3.8.0)
File Edit Format Run Options Window Help

R=[i for i in range(1,1001,2)]
print (R)

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Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Windows.10/Desktop/QA1.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

```

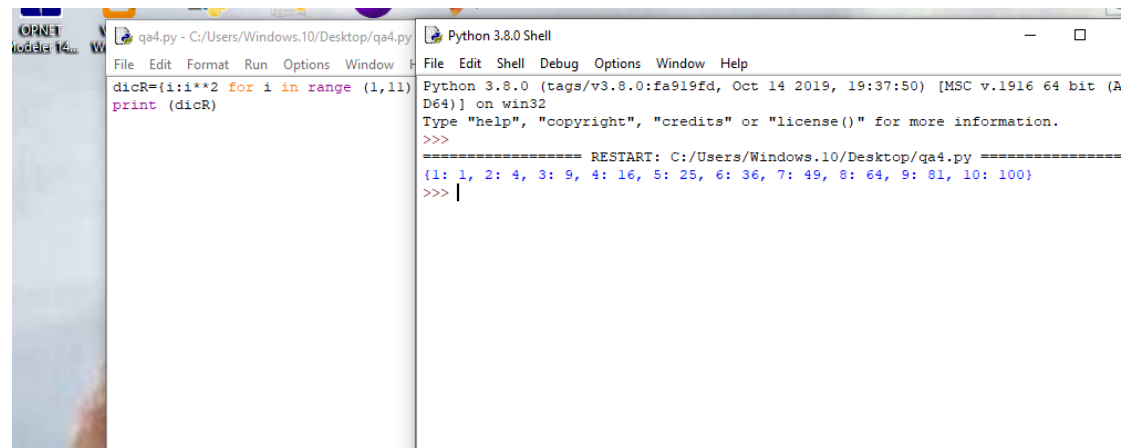
qa3.py - C:/Users/Windows.10/Desktop/qa3.py (3.8.0)
File Edit Format Run Options Window Help

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

Python 3.8.0 Shell
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Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Windows.10/Desktop/qa3.py =====
Programming
Physics
>>>

```

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



The image shows a screenshot of a Python IDE with two windows. The left window, titled 'qa4.py - C:/Users/Windows.10/Desktop/qa4.py', contains the following code:

```
dicR={i:i**2 for i in range (1,11)}  
print (dicR)
```

The right window, titled 'Python 3.8.0 Shell', shows the output of the script after a restart:

```
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:37:50) [MSC v.1916 64 bit (AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: C:/Users/Windows.10/Desktop/qa4.py =====  
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100}  
>>> |
```

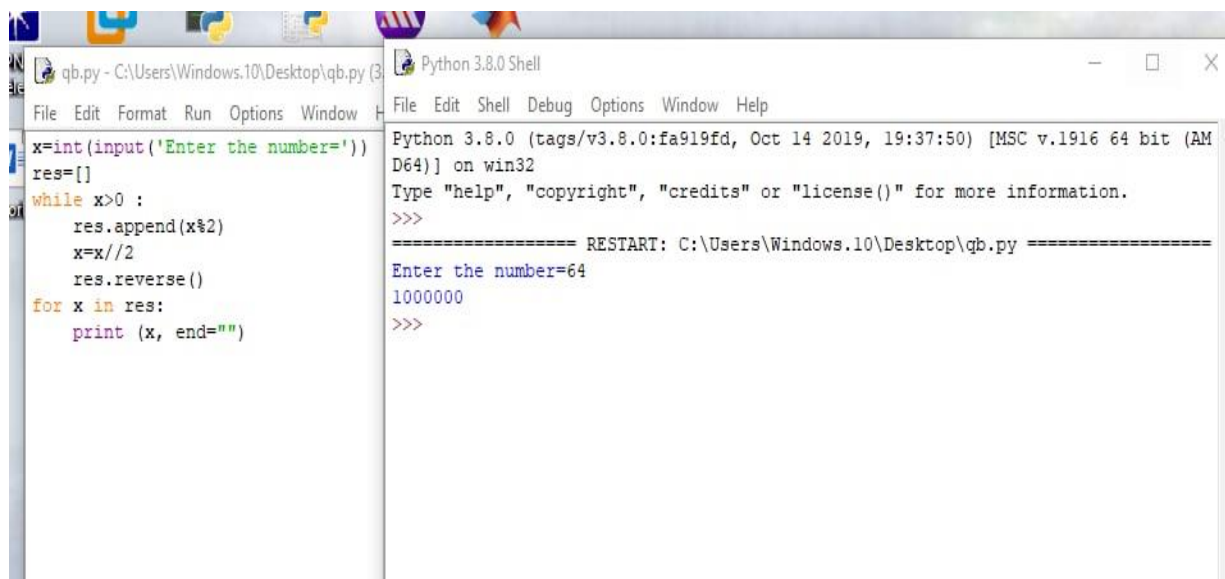
Question 2:

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



```
qb.py - C:\Users\Windows.10\Desktop\qb.py (3)
File Edit Format Run Options Window
x=int(input('Enter the number='))
res=[]
while x>0 :
    res.append(x%2)
    x=x//2
res.reverse()
for x in res:
    print (x, end="")

Python 3.8.0 Shell
File Edit Shell Debug Options Window Help
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:37:50) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\Windows.10\Desktop\qb.py =====
Enter the number=64
1000000
>>>
```

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

