الوظيفة الأولى

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٢٥٧٧

السؤال الأول

```python
students=['laial','raghad','ali','mohammad','sara']
name=input('Enter Student Name:')
if name in students:
    print(name,'graduated')
else:
    print(name,'not graduated')
```

الخرج:

```
Enter Student Name:laial
laial graduated

Process finished with exit code 0
```

```python
oddnums=[x for x in range(1,1000) if x%2!=0]
print(oddnums)
```

الخرج:

```
[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,

Process finished with exit code 0
```

```
L=['Network','Math','Programming','Physics','Music']
#for loop to take each object in list
for i in L:
    #startswith() method for test if the string object
start with capital 'P'
    if i.startswith('P'):
        print(i)
```

الخرج:

```
Programming
Physics

Process finished with exit code 0
```

```
#dictionary comprehension
dict1={x:x**2 for x in range(1,11)}
print(dict1)
```

الخرج:

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

Process finished with exit code 0
```

```python
#empty list to append reminde of divisions
binary=[]
while True:
    d=int(input('enter decimal: '))
    #decimal to binary algorithm
    while d!=0:
        # append reminde of division 0 or 1
        binary.append(d%2)
        # int devision
        d//=2
    #reverse the list to make output is right
    binary.reverse()
    for i in binary:
        print(i,end='')
    print()
    s=input('do you want to continue? for yes enter y no
enter n: ')
    if s=='y':
        #clear list items
        binary=[]
    elif s=="n":
        break
    else:
        print('error, good bye')
        break
```
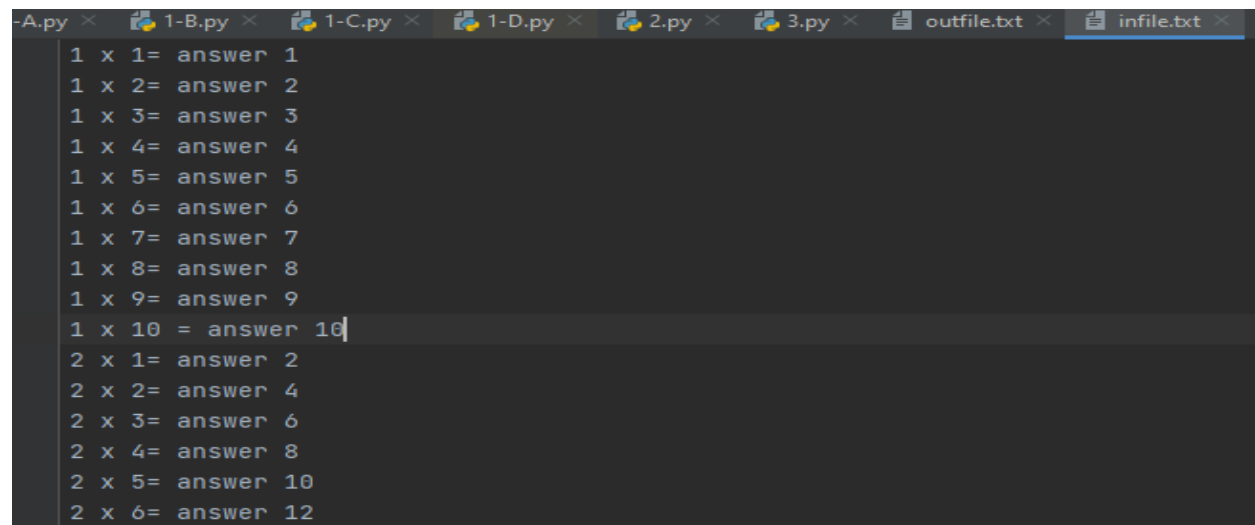
الخرج:

```
enter decimal: 10
1010
do you want to continue? for yes enter y no enter n: y
enter decimal: 9
1001
do you want to continue? for yes enter y no enter n: n

Process finished with exit code 0
```

السؤال الثالث

```python
infile='infile.txt'
outfile='outfile.txt'
# open infile as read
infile=open(infile,'r')
# open outfile as write
outfile=open(outfile,'w')
#true questions number
count=0
#add user name
username=input('enter your name: ')
for i in infile:
    print(i[:i.index('= ')])
    answer=input('enter answer: ')
    if answer == i[i.index('a')+7:].rstrip():
        count+=1
print(count,'answers is true from 20')
outfile.writelines(username)
outfile.writelines(str(count)+' true from 20')
infile.close()
outfile.close()
```
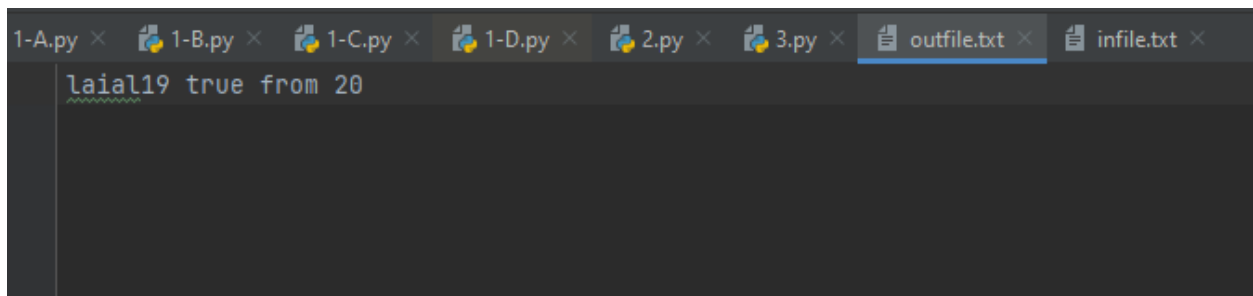
الملف:

```
-A.py    1-B.py    1-C.py    1-D.py    2.py    3.py    outfile.txt    infile.txt
   1 x 1= answer 1
   1 x 2= answer 2
   1 x 3= answer 3
   1 x 4= answer 4
   1 x 5= answer 5
   1 x 6= answer 6
   1 x 7= answer 7
   1 x 8= answer 8
   1 x 9= answer 9
   1 x 10 = answer 10
   2 x 1= answer 2
   2 x 2= answer 4
   2 x 3= answer 6
   2 x 4= answer 8
   2 x 5= answer 10
   2 x 6= answer 12
```

الخرج:

```
1 x 10
enter answer: 10
2 x 1
enter answer: 2
2 x 2
enter answer: 4
2 x 3
enter answer: 6
2 x 4
enter answer: 8
2 x 5
enter answer: 10
2 x 6
enter answer: 12
2 x 7
enter answer: 14
2 x 8
enter answer: 16
2 x 9
enter answer: 18
2 x 10
enter answer: 5
19 answers is true from 20

Process finished with exit code 0
```

الملف الناتج

```
1-A.py    1-B.py    1-C.py    1-D.py    2.py    3.py    outfile.txt    infile.txt
    laial19 true from 20
```