برمجة شبكات

الوظيفة الأولى

نوال سهيل إسماعيل

2377

السؤال الأول:

A

```
d={}
L1=['HTTP','HTTPS','FTP','DNS']
L2=[80,443,20,53]
for a,v in enumerate(L1):
    d[v]=L2[a]
print(d)
```

الخرج

```
{'HTTP': 80, 'HTTPS': 443, 'FTP': 20, 'DNS': 53}

Process finished with exit code 0
```

B حساب العاملة لعدد

```
def f(x):
  if x < 0:
    return "سالب عدد"
  elif x == 0:
    return 1
  else:
    r = 1
    for i in range(1, x + 1):
      r *= i
    return r
while True:
  num = int(input("أدخل عدد "))
  r = f(num)
  print(r)
```

```
  if r == "سالب عدد":
    break
```

الخرج

```
1 أدخل عدد
1
0 أدخل عدد
1
2 أدخل عدد
2
3 أدخل عدد
6
4 أدخل عدد
24
1- أدخل عدد
عدد سالب
```

C

```
L = ['Network', 'Bio', 'Programming', 'Physics', 'Music']

for i in range(len(L)):
  if L[i].startswith('B'):
    print(L[i])
```

الخرج

```
Bio


Process finished with exit code 0
```

D

```
d = {i: i + 1 for i in range(11)}
print(d)
```

الخرج

```
{0: 1, 1: 2, 2: 3, 3: 4, 4: 5, 5: 6, 6: 7, 7: 8, 8: 9, 9: 10, 10: 11}

Process finished with exit code 0
```

السؤال الثاني: تحويل من ثنائي الى عشري

```
def Func(b):
    dec=0
    try:
        for i in range(len(b)):
            t= int(b[i])
            dec += t * 2**(len(b)-i-1)
        return dec
    except Exception as e:
        print(e)
while True:
    b=input("Input an binary Input x to exit: ")
    if b=='x':
        break
    d=Func(b)
    print(d)
```

الخرج

```
Input an binary Input x to exit: 1
1
Input an binary Input x to exit: 11
3
Input an binary Input x to exit: 111
7
Input an binary Input x to exit: 101
5
Input an binary Input x to exit: x

Process finished with exit code 0
```

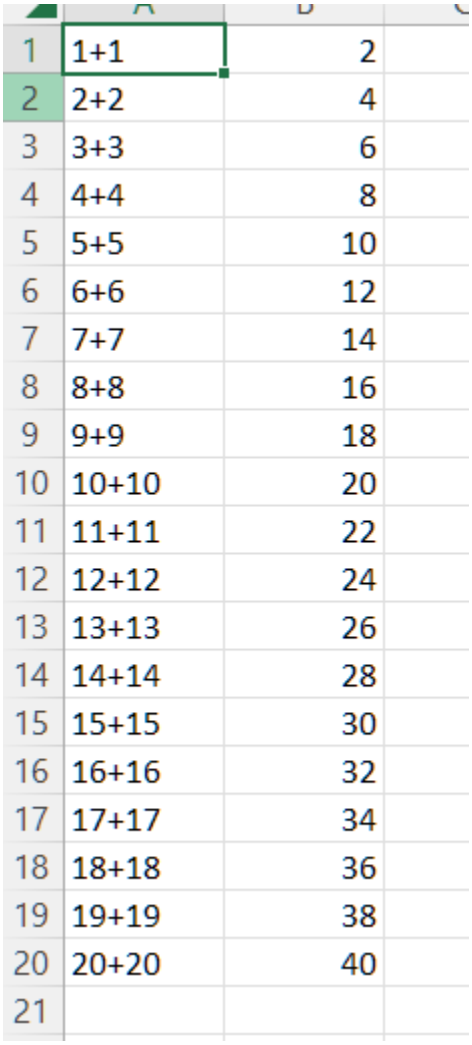
السؤال الثالث: برنامج لقراءة أسئلة من ملف وعرضها للمستخدم وحساب النتيجة ووضعها بملف اخر

```
user=input('enter username: ')
l=[]
count=0
q=open('questions.csv','r')
res=open('answers.csv','w')
for i in q:
    l1=i.rstrip().split(',')
    l.append(l1)
for i in l:
    print(i[0])
    ans=input()
    if ans==i[1]:
        count+=1
        print('correct')
    else:
        print('incorrect')
print(user)
print('true answers is ',count,'from 20')
res.write(user+','+ str(count))
q.close()
res.close()
```

الخرج

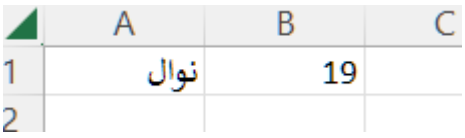
```
18+18
36
correct
19+19
38
correct
20+20
40
correct
نوال
true answers is  19 from 20

Process finished with exit code 0
```

ملف الأسئلة



	A	B
1	1+1	2
2	2+2	4
3	3+3	6
4	4+4	8
5	5+5	10
6	6+6	12
7	7+7	14
8	8+8	16
9	9+9	18
10	10+10	20
11	11+11	22
12	12+12	24
13	13+13	26
14	14+14	28
15	15+15	30
16	16+16	32
17	17+17	34
18	18+18	36
19	19+19	38
20	20+20	40
21		

ملف النتيجة



	A	B	C
1	نوال	19	
2			

السؤال الرابع: بناء كلاس حساب بنكي وحساب توفير

```
class BankAccount:
  def __init__(self, account_number, account_holder,balance = 0.0):
    self.account_number = account_number
    self.account_holder = account_holder
    self.balance = balance

  def deposit(self, amount):
    if amount > 0:
      self.balance += amount
      print(f"Deposited {amount}. New balance: {self.balance}")
    else:
      print("Invalid deposit amount. Please enter a positive value.")

  def withdraw(self, amount):
    if amount > 0 and self.balance >= amount:
      self.balance -= amount
      print(f"Withdraw {amount}. New balance: {self.balance}")
    else:
      print("error")

  def get_balance(self):
    return self.balance

  def __str__(self):
    s=self.account_number+" " +self.account_holder+ " "+str(self.balance)
    return s

class SavingsAccount(BankAccount):
  def __init__(self, account_number, account_holder, interest_rate,balance =
0.0):
    super().__init__(account_number, account_holder)
    self.interest_rate = interest_rate

  def apply_interest(self):
    interest = self.balance * self.interest_rate
    self.balance += interest
    print(f"Apply interest  {interest}  %%%% New balance: {self.balance}")

  def __str__(self):
    s = self.account_number + " " + self.account_holder + " " +
str(self.balance)+ " " +str(self.interest_rate)+"%"
    return s

Nawal = BankAccount("2377", " اسماعيل سهيل نوال")
Nawal.deposit(1000)
Nawal.withdraw(500)
print(Nawal)
savings_account = SavingsAccount("2377", "اسماعيل سهيل نوال", 0.1)
savings_account.deposit(100)
savings_account.apply_interest()
print(savings_account)
```

الخرج

```
Deposited 1000. New balance: 1000.0
Withdraw 500. New balance: 500.0
500.0 نوال سهيل اسماعيل  2377
Deposited 100. New balance: 100.0
Apply interest  10.0  %%%% New balance: 110.0
%0.1 110.0 نوال سهيل اسماعيل 2377

Process finished with exit code 0
```