عزيز كاظم كيوان 2961

الوظيفة الأولى

السؤال الأول:

```
L1 = ['HTTP', 'HTTPS', 'FTP', 'DNS']
L2 = [80, 443, 21, 53]
d = dict(zip(L1, L2))
print(d)
```

```
{'HTTP': 80, 'HTTPS': 443, 'FTP': 21, 'DNS': 53}

Process finished with exit code 0
```

```
while True:
    try:
        num = int(input("enter number "))
        if num == 0:
            print(1)
        a=1
        while num>1:
            a*=num
            num-=1
        print(a)
    except:
        break
```

```
enter number 3
6
enter number 4
24
enter number 5
120
enter number q

Process finished with exit code 0
```

```
L = ['Network', 'Bio', 'Programming', 'Physics', 'Music']
for i in L:
    if i.startswith('B'):
        print(i)
```

```
Bio

Process finished with exit code 0
```

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

```
{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:

```
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("Ėnter an binary ")
    if not b.isdigit():
        break
    d=func(b)
    print(d)
```

```
Enter an binary 110101
53
Enter an binary 1001
9
Enter an binary ض

Process finished with exit code 0
```

السؤال الثالث:

```python
import csv
import json

QUESTIONS_FILE = 'file.json'
RESULTS_FILE = 'results.csv'

# قراءة الأسئلة والأجوبة من ملف JSON
file= open(QUESTIONS_FILE, 'r')
data = json.load(file)
questions = [(q['q'], q['a']) for q in data]
file.close()
# طرح الأسئلة على المستخدم وجمع الإجابات
username = input("enter your name ")
c = 0
for q, a in questions:
    user_answer = input(q)
    if user_answer == a:
        c += 1
score = f"{c}/{20}"
print(f"{username}::: {score}")

# حفظ اسم المستخدم والنتيجة في ملف CSV

result = [username, str(c), "20"]

file=open(RESULTS_FILE, 'w')
writer = csv.writer(file)
writer.writerow(result)
file.close()
```

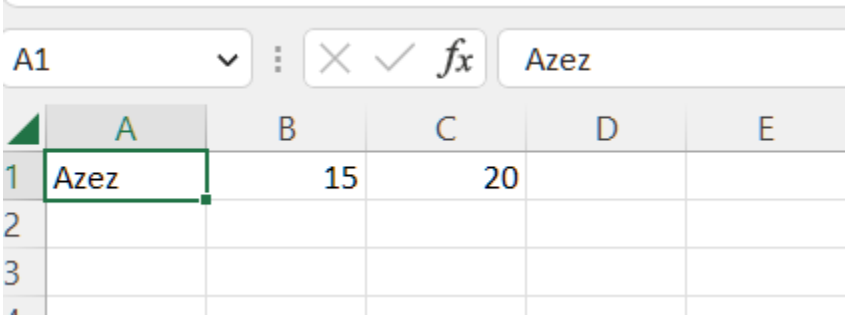
```
enter your name Azez
What is 3 * 4?12
What is 7 * 8?56
What is 6 * 6?36
What is 9 * 9?81
What is 5 * 5?25
What is 12 * 12?214
What is 8 * 8?64
What is 11 * 11?212
What is 4 * 7?12
What is 6 * 8?48
What is 9 * 6?54
What is 7 * 7?49
What is 10 * 10?100
What is 8 * 4?32
What is 3 * 8?18
What is 5 * 6?30
What is 11 * 3?33
What is 7 * 9?55
What is 4 * 4?16
What is 6 * 7?42
Azez::: 15/20

Process finished with exit code 0
```

File.json

```
[
  {
    "q": "What is 3 * 4?",
    "a": "12"
  },
  {
    "q": "What is 7 * 8?",
    "a": "56"
  },
  {
    "q": "What is 6 * 6?",
    "a": "36"
  },
  {
    "q": "What is 9 * 9?",
    "a": "81"
  },
  {
    "q": "What is 5 * 5?",
    "a": "25"
  },
  {
    "q": "What is 12 * 12?",
    "a": "144"
  },
  {
    "q": "What is 8 * 8?"
```

results.csv



السؤال الرابع:

```python
# تعريف كلاس BankAccount مع الخصائص والطرق المطلوبة
class BankAccount:
    # الخصائص: رقم الحساب، اسم صاحب الحساب، والرصيد
    def __init__(self, account_number, account_holder):
        self._account_number = account_number
        self._account_holder = account_holder
        self._balance = 0.0

    # طريقة إيداع مبلغ
    def deposit(self, amount):
        self._balance += amount

    # طريقة سحب مبلغ
    def withdraw(self, amount):
        self._balance -= amount

    # طريقة الحصول على الرصيد الحالي
    def get_balance(self):
        return self._balance

# إنشاء نوع من كائن BankAccount
bank_account = BankAccount("2961", "Azez Kiwan")

# إيداع 1000 دولار
bank_account.deposit(1000)
print(bank_account.get_balance())

# سحب 500 دولار
bank_account.withdraw(500)
print(bank_account.get_balance())

# تعريف كلاس SavingsAccount التي ترث من BankAccount
class SavingsAccount(BankAccount):
    def __init__(self, account_number, account_holder, interest_rate):
        # استدعاء المُنشئ الأصلي من كلاس BankAccount
        super().__init__(account_number, account_holder)
        self._interest_rate = interest_rate
```

```python
    # الرصيد على الفوائد تطبيق طريقة
    def apply_interest(self):
        self._balance += self._balance * self._interest_rate

    # البيانات طباعة طريقة
    def __str__(self):
        return f"Account Number: {self._account_number}, Account Holder:
{self._account_holder}, Balance: {self._balance}, Interest Rate:
{self._interest_rate}"

# نوع من كائن إنشاء SavingsAccount
savings_account = SavingsAccount("11111", "Issa ali", 0.44)
savings_account.deposit(200)
# الرصيد على الفوائد تطبيق
savings_account.apply_interest()
print(savings_account)
```

```
1000.0
500.0
Account Number: 11111, Account Holder: Issa ali, Balance: 288.0, Interest Rate: 0.44

Process finished with exit code 0
```