



الجمهورية العربية السورية

جامعة تشرين

كلية الهندسة الميكانيكية والكهربائية

قسم الاتصالات

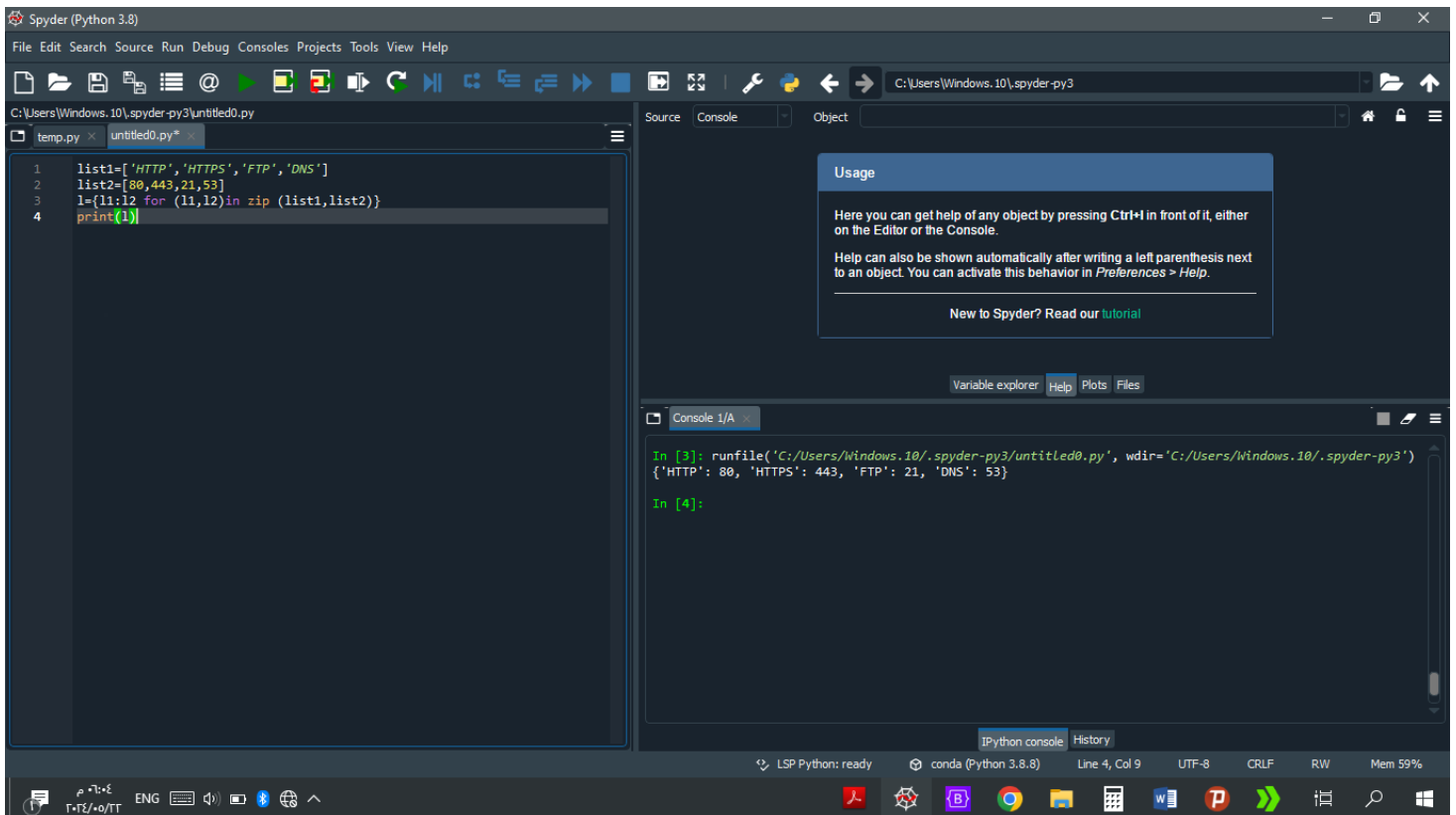
الرقم الجامعي: 2913

الطالبة: غوى عزيز عبدالله

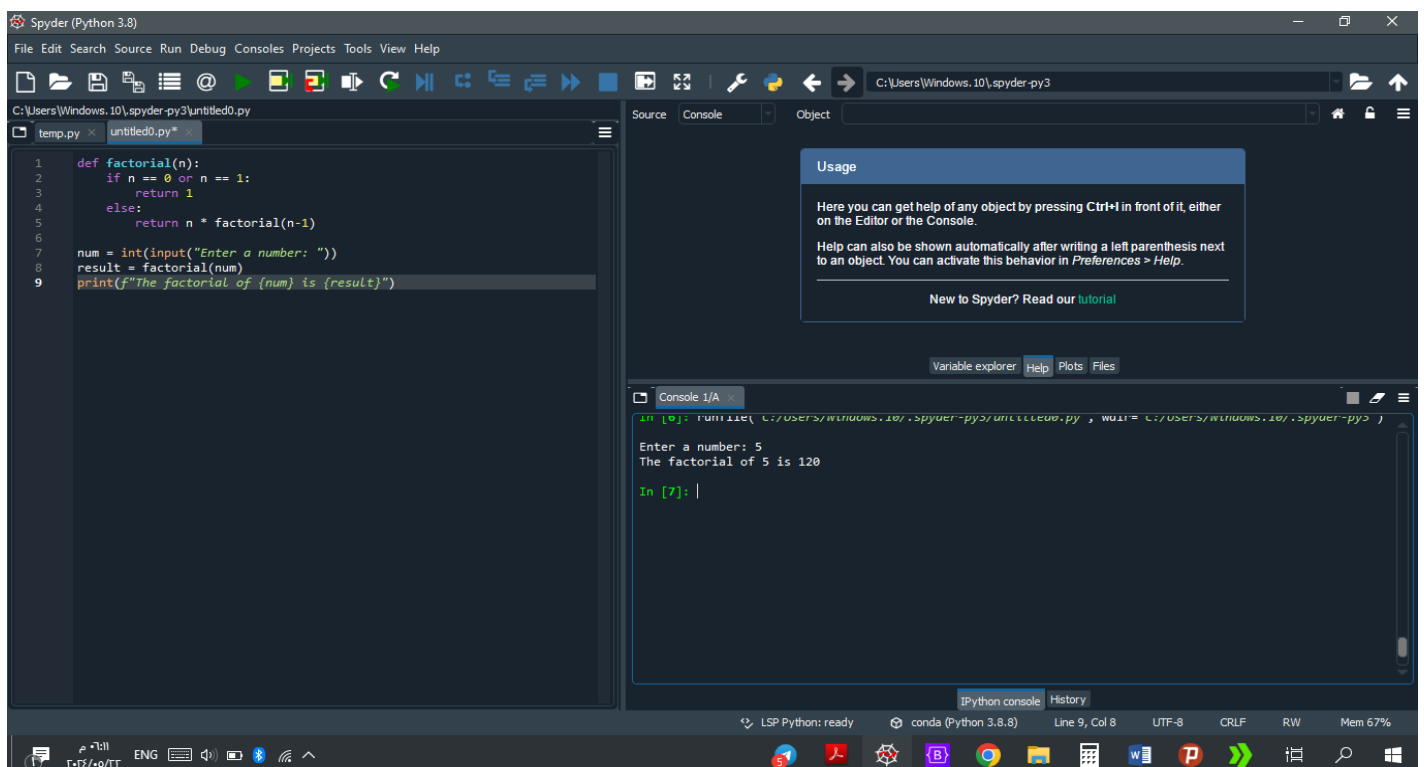
برمجة شبكات

Homework 1

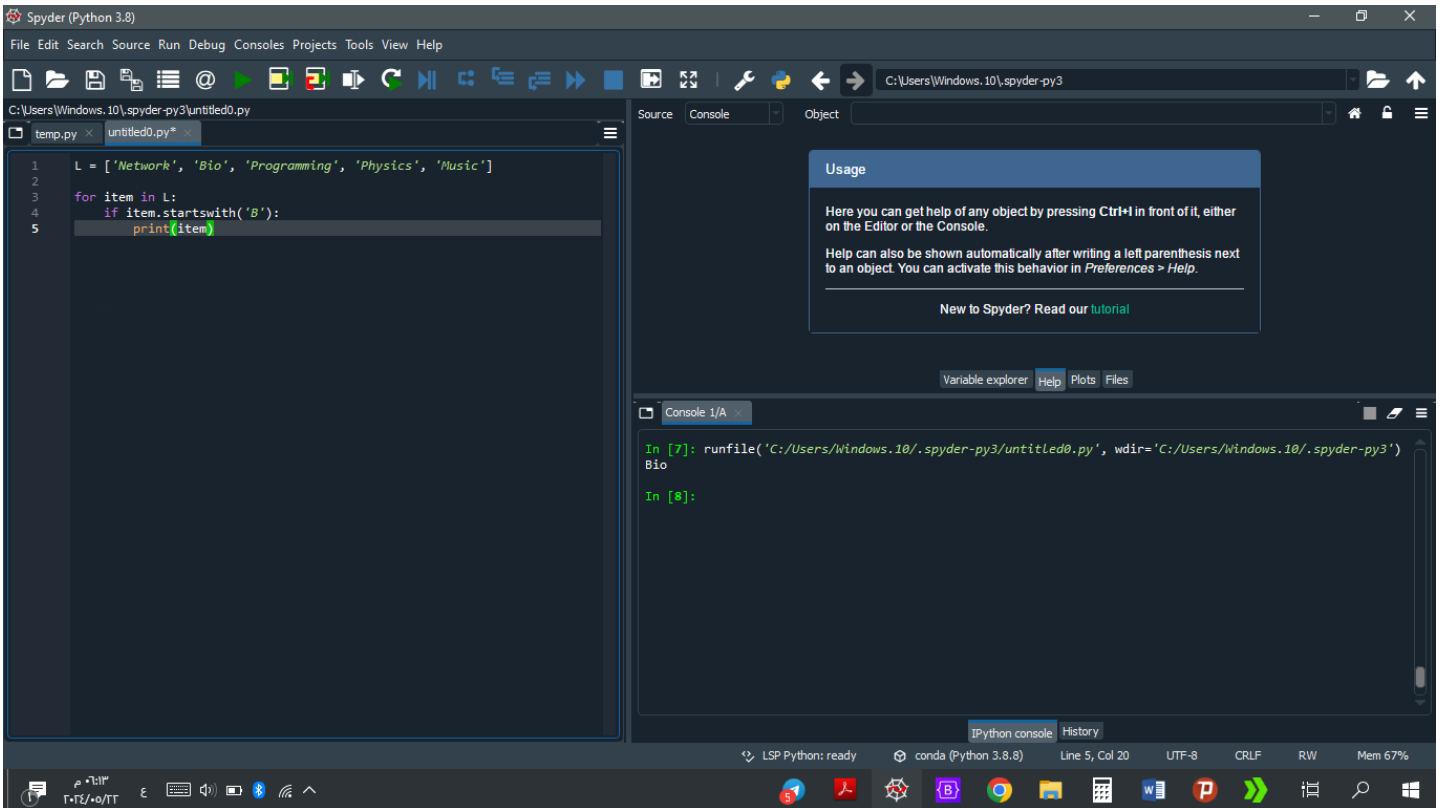
## Question 1-A



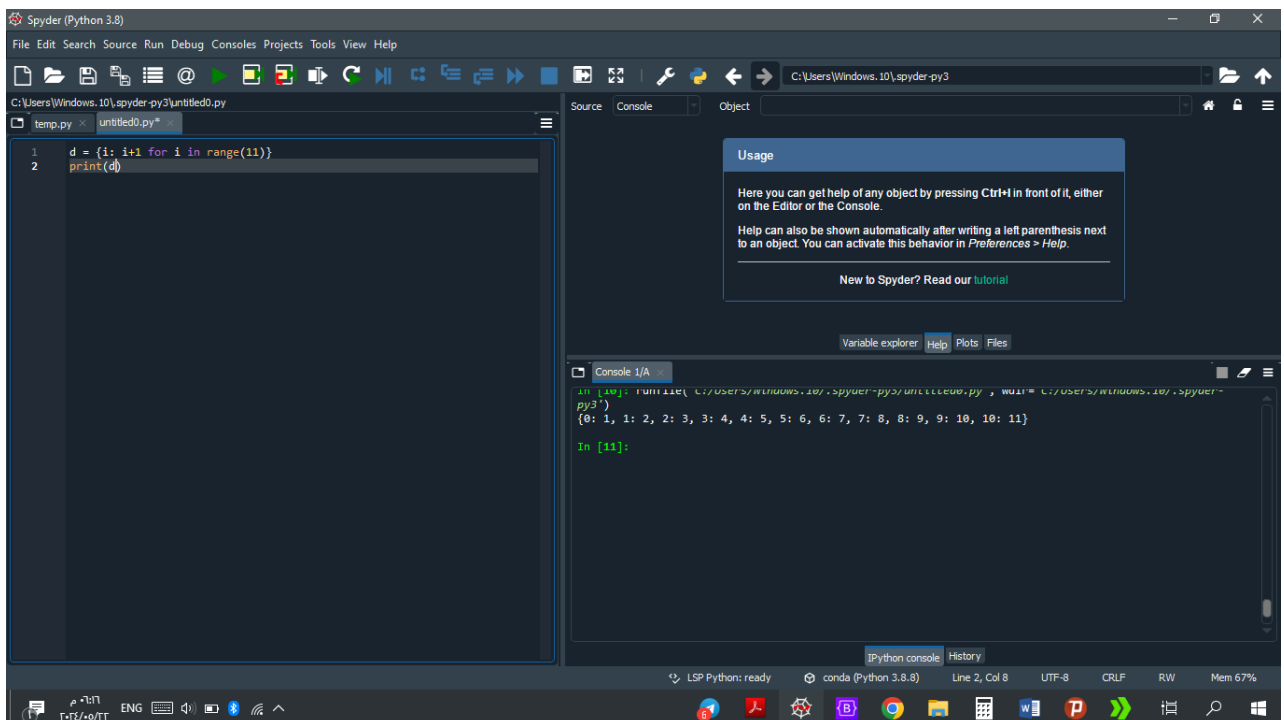
## Question 1-B



## Question 1-c



## Question 1-D



## Question 2

The screenshot shows the Spyder Python IDE interface. The main editor displays a Python script for converting a binary number to a decimal number. The script prompts the user to enter a binary number and then prints the equivalent decimal number. The console window shows the script being executed three times with different binary inputs: 111, 001, and 110, resulting in decimal outputs of 7, 1, and 6 respectively. A help window is also visible, explaining how to get help for any object by pressing Ctrl+I.

```
1 binary_number = input("Enter a binary number: ")
2
3
4
5 decimal_number = 0
6 for digit in binary_number:
7     decimal_number = decimal_number*2 + int(digit)
8
9
10 print(f"The equivalent decimal number is: {decimal_number}")
11
```

Console 1/A

```
py> )
Enter a binary number: 111
The equivalent decimal number is: 7

In [12]: runfile('C:/Users/Windows.10/.spyder-py3/untitled0.py', wdir='C:/Users/Windows.10/.spyder-py3')
Enter a binary number: 001
The equivalent decimal number is: 1

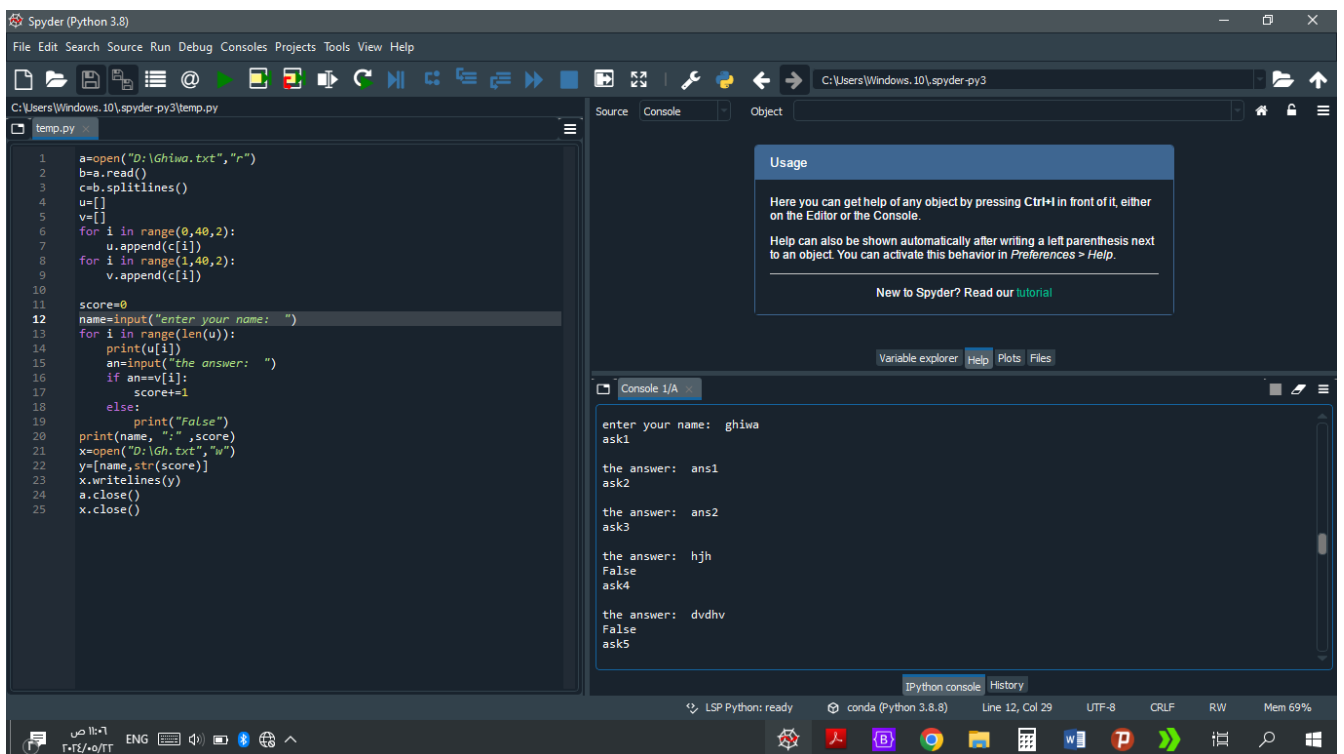
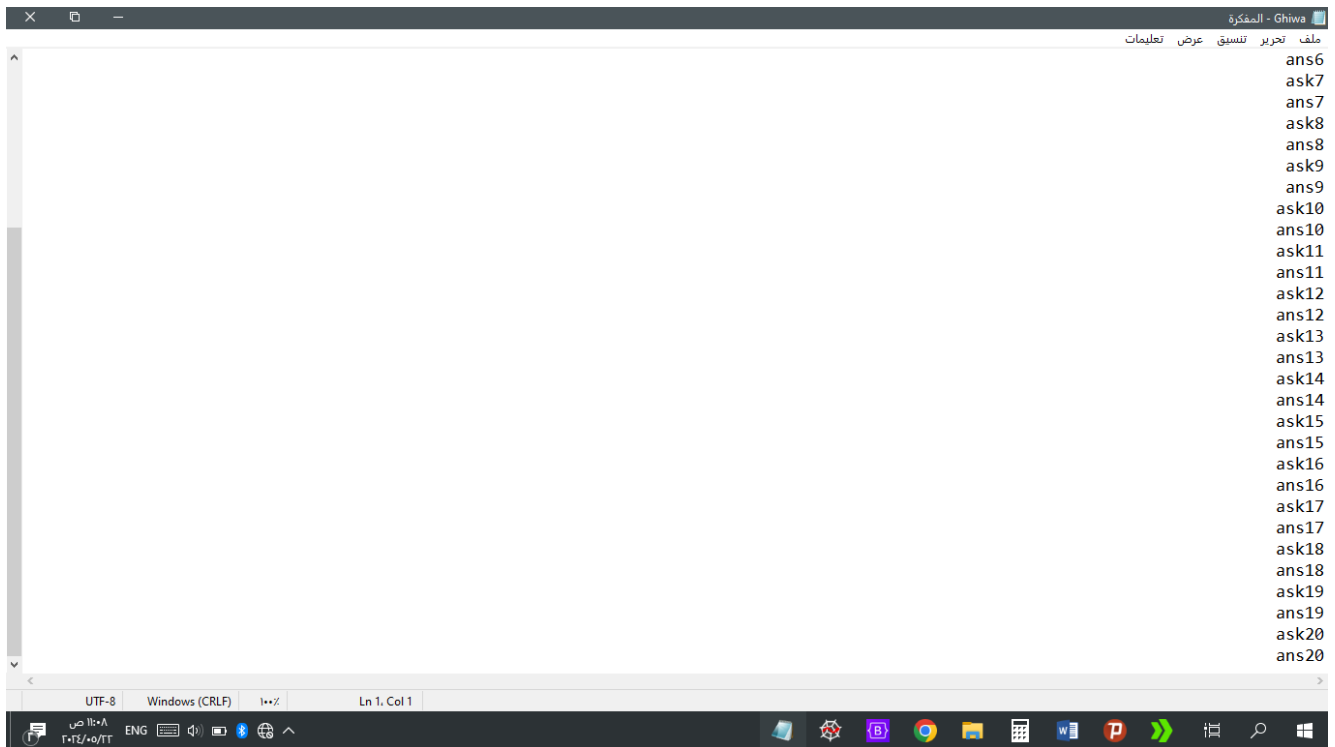
In [13]: runfile('C:/Users/Windows.10/.spyder-py3/untitled0.py', wdir='C:/Users/Windows.10/.spyder-py3')
Enter a binary number: 110
The equivalent decimal number is: 6

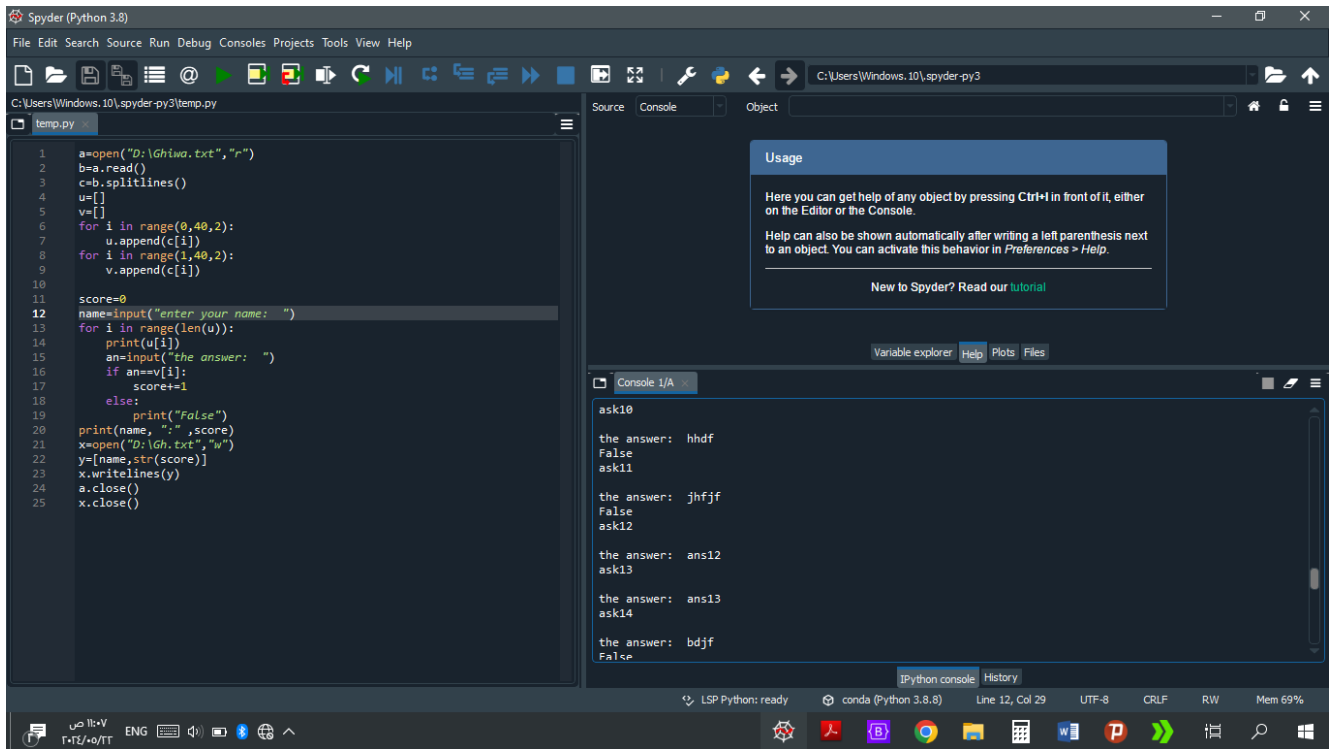
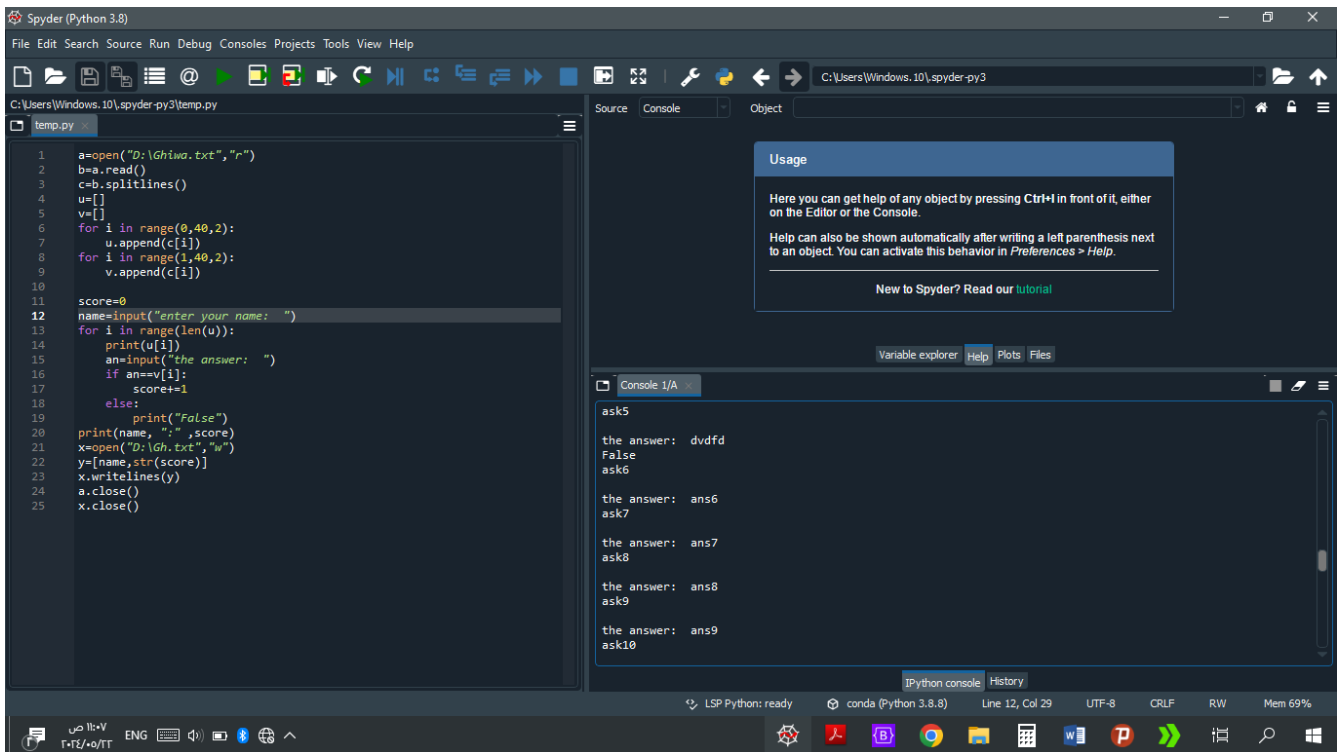
In [14]:
```

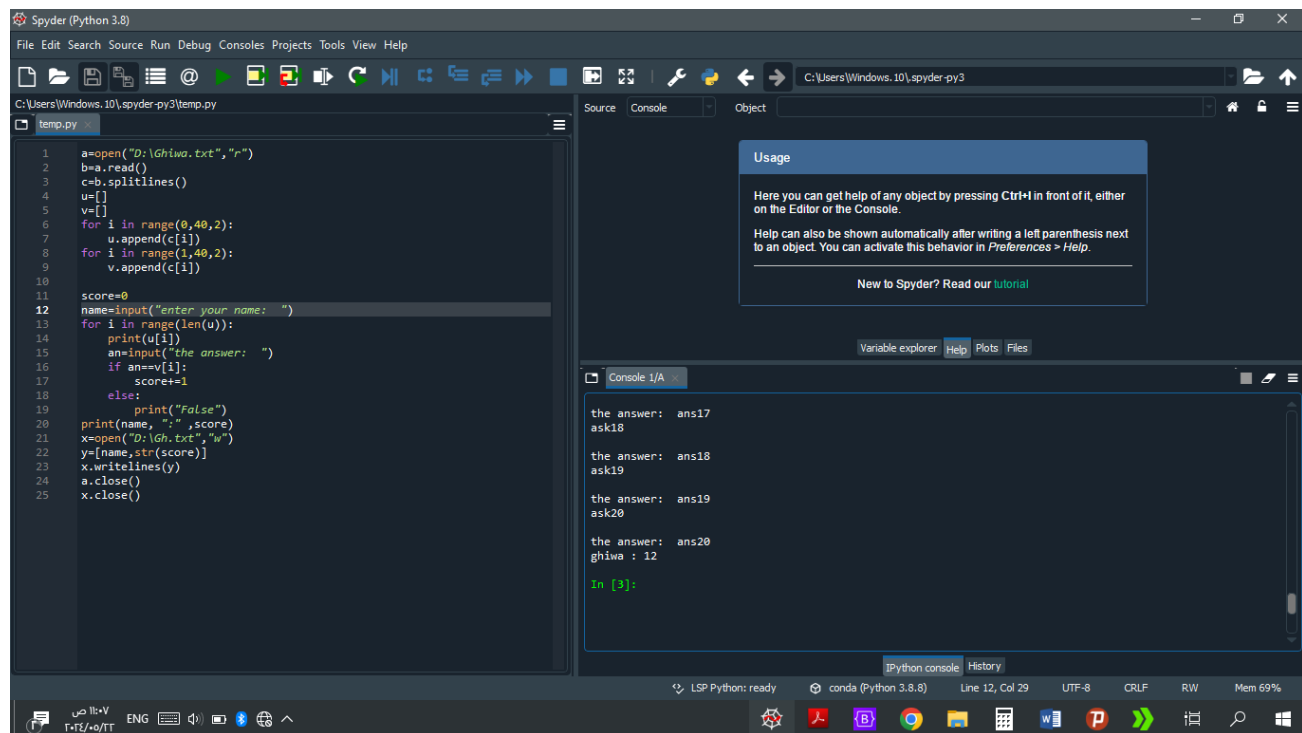
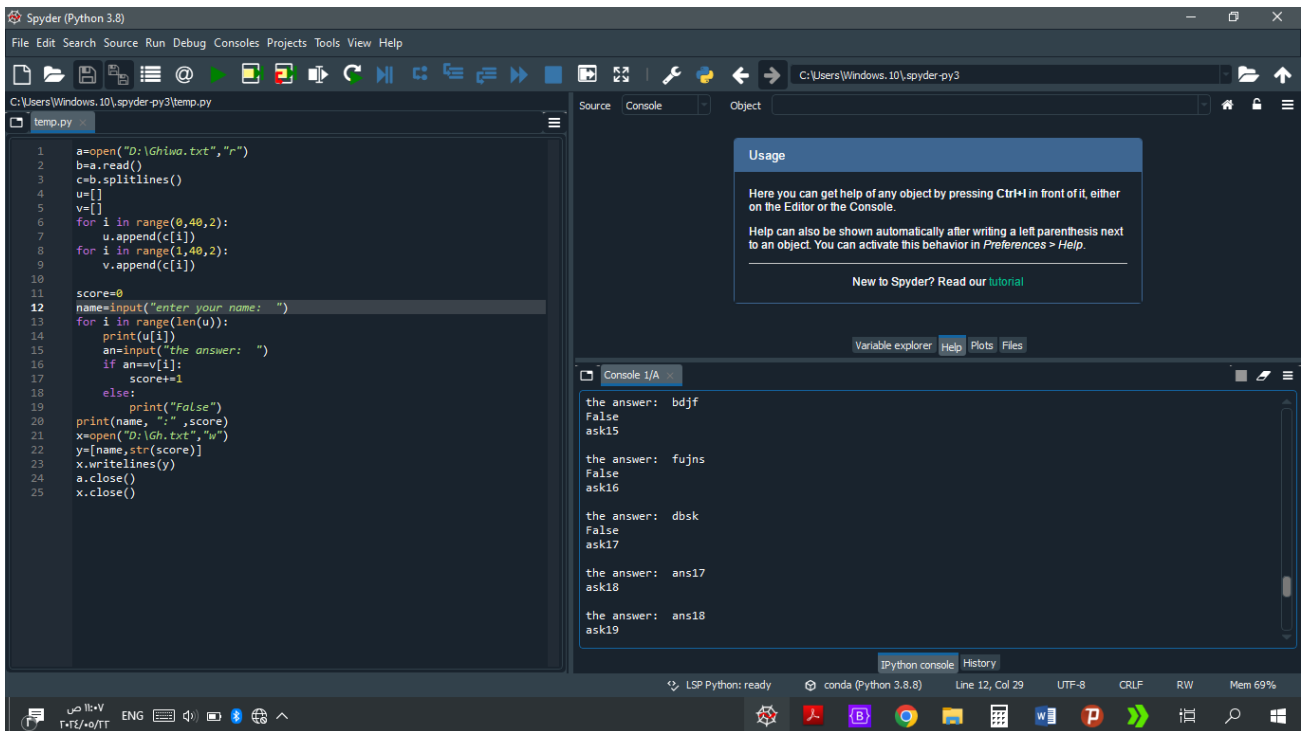
## Question 3

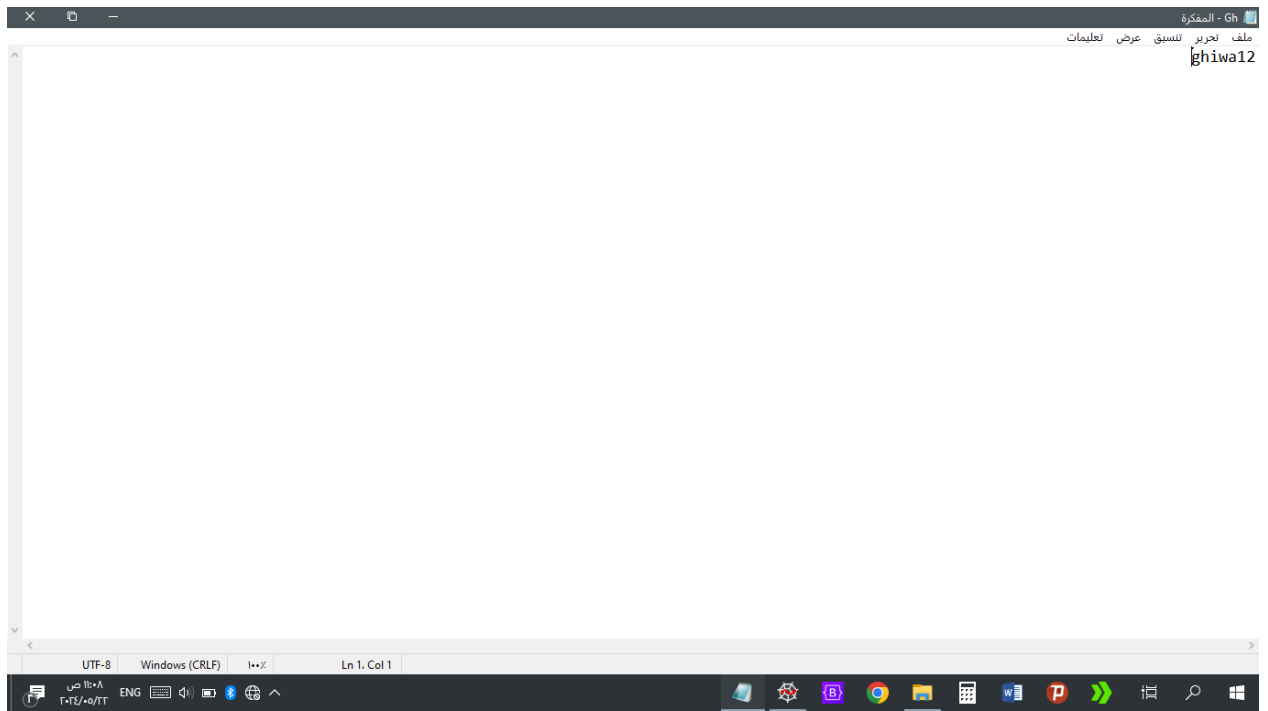
The screenshot shows a text editor window with a list of questions and answers. The questions are numbered 1 through 15, and the answers are labeled ask1 through ans15. The text is in Arabic, and the editor is titled 'المفكرة - Ghiwa'.

```
ملف تحرير تنسيق عرض تعليمات
ask1
ans1
ask2
ans2
ask3
ans3
ask4
ans4
ask5
ans5
ask6
ans6
ask7
ans7
ask8
ans8
ask9
ans9
ask10
ans10
ask11
ans11
ask12
ans12
ask13
ans13
ask14
ans14
ask15
ans15
```











# Question 4

The screenshot shows the Spyder Python IDE with a file named `bank.py` open. The code defines a `BankAccount` class with methods `__init__`, `deposit`, `withdraw`, and `get_balance`. It also defines a `SavingsAccount` class that inherits from `BankAccount` and adds an `apply_interest` method. The code creates a `BankAccount` instance named `bank_acc` and performs a deposit and a withdrawal. The console output shows the results of these operations.

```
1 class BankAccount:
2     def __init__(self, account_number, account_holder, balance=0.0):
3         self.account_number = account_number
4         self.account_holder = account_holder
5         self.balance = balance
6
7     def deposit(self, amount):
8         self.balance += amount
9         print(f"Deposited ${amount}. Current balance: ${self.balance}")
10
11    def withdraw(self, amount):
12        if amount <= self.balance:
13            self.balance -= amount
14            print(f"Withdraw ${amount}. Current balance: ${self.balance}")
15        else:
16            print("Insufficient funds")
17
18    def get_balance(self):
19        return self.balance
20
21
22    class SavingsAccount(BankAccount):
23        def __init__(self, account_number, account_holder, balance=0.0, interest_rate=0.02):
24            super().__init__(account_number, account_holder, balance)
25            self.interest_rate = interest_rate
26
27        def apply_interest(self):
28            interest = self.balance * self.interest_rate
29            self.balance += interest
30
31        def print(self):
32            print(f"Current balance: ${self.balance}, Interest rate: {self.interest_rate * 100}%")
33
34
35    bank_acc = BankAccount("12345", "ghiwa abd")
36    bank_acc.deposit(1000)
37    bank_acc.withdraw(500)
```

Console output:

```
Python 3.8.8 (default, Apr 13 2021, 15:08:03) [MSC v.1916 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 7.22.0 -- An enhanced Interactive Python.

In [1]: runfile('C:/Users/Windows.10/Desktop/ghiwa/bank.py', wdir='C:/Users/
Windows.10/Desktop/ghiwa')
Deposited $1000. Current balance: $1000.0
Withdraw $500. Current balance: $500.0
Final balance: $500.0
Current balance: $2100.0, Interest rate: 5.0%

In [2]:
```

The screenshot shows the Spyder Python IDE with the same `bank.py` file. The code is now complete, including the `print` statement for the final balance and the creation of a `SavingsAccount` instance named `savings_acc`. The console output shows the results of these operations.

```
9     print(f"Deposited ${amount}. Current balance: ${self.balance}")
10
11    def withdraw(self, amount):
12        if amount <= self.balance:
13            self.balance -= amount
14            print(f"Withdraw ${amount}. Current balance: ${self.balance}")
15        else:
16            print("Insufficient funds")
17
18    def get_balance(self):
19        return self.balance
20
21
22    class SavingsAccount(BankAccount):
23        def __init__(self, account_number, account_holder, balance=0.0, interest_rate=0.02):
24            super().__init__(account_number, account_holder, balance)
25            self.interest_rate = interest_rate
26
27        def apply_interest(self):
28            interest = self.balance * self.interest_rate
29            self.balance += interest
30
31        def print(self):
32            print(f"Current balance: ${self.balance}, Interest rate: {self.interest_rate * 100}%")
33
34
35    bank_acc = BankAccount("12345", "ghiwa abd")
36    bank_acc.deposit(1000)
37    bank_acc.withdraw(500)
38    print(f"Final balance: ${bank_acc.get_balance()}")
39
40    # Create an instance of SavingsAccount
41    savings_acc = SavingsAccount("54321", "gazel abd", 2000, 0.05)
42    savings_acc.apply_interest()
43    savings_acc.print()
44
```

Console output:

```
Python 3.8.8 (default, Apr 13 2021, 15:08:03) [MSC v.1916 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 7.22.0 -- An enhanced Interactive Python.

In [1]: runfile('C:/Users/Windows.10/Desktop/ghiwa/bank.py', wdir='C:/Users/
Windows.10/Desktop/ghiwa')
Deposited $1000. Current balance: $1000.0
Withdraw $500. Current balance: $500.0
Final balance: $500.0
Current balance: $2100.0, Interest rate: 5.0%

In [2]:
```

