

Syrian Arab Republic

Lattakia - Tishreen University

Department of Communication and electrical
engineering

5th , Network Programming : Homework No1



الجمهورية العربية السورية

اللاذقية - جامعة تشرين

كلية الهندسة الكهربائية والميكانيكية

قسم هندسة الاتصالات والإلكترونيات

السنة الخامسة: وظيفة 1 برمجة شبكات

رهف نهران حسن

الرقم الجامعي: 2570

السؤال الأول:

A-

#السؤال الاول الطلب A

```
L1=['HTTP','HTTPS','FTP','DNS']
L2=[80,443,20,53]
d=dict()
for i in range(len(L1)):
    d[L1[i]]=L2[i]
print(d)
```

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

B-

#B

```
def func(n):
    f=1
    while n>0:
        f=f*n
        n-=1
    return f
while True:
    s=input("enter number: ")
    s=int(s)
    if s<0:
        break
    if s==0:
        print(1)
        continue
    print(func(s))
```

```
enter number: 1
1
enter number: 2
2
enter number: 4
24
enter number: 3
6
enter number: 0
1
enter number: -1
```

C-

```
#C
```

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

Bio

D-

```
#D
```

```
d={k:k+1 for k 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}
```

السؤال الثاني:

#السؤال الثاني

```
bin_num = input("enter an binary number: ")
t=0
for i in bin_num:
    if i == '0' or i == '1':
        pass
    else:
        t+=1
        print('error')
        break
if t==0:
    deci_num = 0
    for i in range(len(bin_num)):
        digit = int(bin_num[i])
        deci_num += digit * 2**(len(bin_num)-i-1)
    print(deci_num)
```

enter an binary number: 100

4

السؤال الثالث:

#السؤال الثالث

```
import json
infile='1.json'
infile=open(infile,'r')
num=0
u=input('enter your name: ')
d=dict()
dic=json.load(infile)
infile.close()
for k,v in dic.items():
    print(k)
    a=input()
    if a == v:
        num+=1
        d[k]=v
d[u]=num
print(d)
outfile='2.json'
outfile=open(outfile,'w')
json.dump(d,outfile)
outfile.close()
```

enter your name: Rahaf

1+1

2

2+2

4

3+3

6

4+4

8

5+5

20

6+6

12

7+7

14

{'1+1': '2', '2+2': '4', '3+3': '6', '4+4': '8', '6+6': '12', '7+7': '14', 'Rahaf': 6}

ملف الاختبار:

```
1 [{"1+1": "2", "2+2": "4", "3+3": "6", "4+4": "8", "5+5": "10", "6+6": "12", "7+7": "14"}]
```

ملف النتيجة:

```
1 [{"1+1": "2", "2+2": "4", "3+3": "6", "4+4": "8", "6+6": "12", "7+7": "14", "Rahaf": 6}]
```

السؤال الرابع:

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

    def deposit(self, amount):
        self.balance += amount

    def withdraw(self, amount):
        if self.balance >= amount:
            self.balance -= amount
        else:
            print("Insufficient funds.")

    def get_balance(self):
        return self.balance

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

    def apply_interest(self):
        self.balance += self.balance * self.interest_rate

    def __str__(self):
        return f"Account Number: {self.account_number}\nAccount Holder: {self.account_holder}\nBalance: ${self.balance}"
```

```
# Create an instance of BankAccount
bank_account = BankAccount("12345", "RAHAF")

# Perform a deposit of $1000
bank_account.deposit(1000)
print(f"Current balance: ${bank_account.get_balance():.2f}")

# Perform a withdrawal of $500
bank_account.withdraw(500)
print(f"Current balance: ${bank_account.get_balance():.2f}")

# Create an instance of SavingsAccount
savings_account = SavingsAccount("67890", "RAHAF", 0.05)
savings_account.deposit(10)
# Apply interest and print the current balance and rate
savings_account.apply_interest()
print(savings_account)
```

```
Current balance: $1000.00
Current balance: $500.00
Account Number: 67890
Account Holder: RAHAF
Balance: $10.50
Interest Rate: 5.00%
```
