Ch7

7-1

f1 = open("ex7-1.txt","r")

f2 = open("ex7-1a.txt","w")

n = int(f1.readline())

for i in range(n):

 u = int(f1.readline())

 v = u\*\*2

 print(str(u)+“\t”+str(v)) #顯示在螢幕

 f2.write(str(u)+“\t”+str(v)+“\n”) #寫入檔案

f1.close()

f2.close()

7-2

f1 = open("ex7-2.txt","r")

f2 = open("ex7-2a.txt","w")

n = int(f1.readline())

for i in range(n):

 u = int(f1.readline())

 v = (u\*\*0.5)\*10

 print(str(u)+"\t"+str(v))

 f2.write(str(u)+"\t"+str(v)+"\n")

f1.close()

f2.close()

7-3

f1 = open(“ex7-3.txt”,“r”) #開啟檔案

f2 = open("ex7-3a.txt","w")

A = [[0 for i in range(5)] for i in range(3)] #宣告3x5陣列

B = [[0 for i in range(3)] for i in range(5)]

def print\_matrix(x,a,b): #印出陣列副程式

 for i in range(a):

 for j in range(b):

 print(str(x[i][j])+"\t",end="")

 print("")

#read file into matrix A

i = 0

for line in f1:

 line = line.replace("\n","") #將換行符號消去

 A[i] = line.split("\t") #以跳格當分界，將數字存入陣列

 i += 1

print\_matrix(A,3,5)

print("") #印一個換行

#transposed matrix and write to file

for j in range(5):

 s = ""

 for i in range(3):

 **B[j][i] = A[i][j]**

 s += str(B[j][i])+"\t"

 f2.write(s+"\n")

print\_matrix(B,5,3) #顯示置換後結果

f1.close() #關閉檔案

f2.close()

7-4

f1 = open("ex7-5.txt","r") 　　#開啟檔案

f2 = open("ex7-5a.txt","w")

A = [0 for i in range(n)] 　　#宣告陣列

n = int(f1.readline())

for i in range(n):　　#讀入檔案

 A[i] = int(f1.readline())

 print(A[i])

for i in range(n-1,-1,-1):　　#倒過來寫入檔案

 f2.write(str(A[i])+"\n")

 print(A[i])

f1.close() 　#關閉檔案

f2.close()

**7.1 流程圖**



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**7.2 流程圖**



**7.3 流程圖**



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**7.4 流程圖**



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