Option Explicit

Dim in\_file As String

Dim out\_file As String

Dim atts As String

Dim X As Integer

Dim Y As Integer

Dim col As Integer

Dim RanNum As Integer

Dim num\_in\_fold(6) As Integer

Dim data(1484, 10) As String 'data1 used in equal-width,changing value after discretization

Private Sub Frame1\_DragDrop(Source As Control, X As Single, Y As Single)

End Sub

Private Sub Label4\_Click()

End Sub

Private Sub Partition\_click()

List1.Clear

'check whether the file name is empty

If infile.Text = "" Then

MsgBox "Please input the file names!", , "File Name"

infile.SetFocus

Else

in\_file = App.Path & "\" & infile.Text

'check whether the data file exists

If Dir(in\_file) = "" Then

MsgBox "Input file not found!", , "File Name"

infile.SetFocus

Else

'variale define

Dim each\_row\_output() As String

Open in\_file For Input As #1

Open App.Path & "\test.txt" For Output As #2

'Open App.Path & "\test-freq.txt" For Output As #3

Y = 0 'from row 0

'read each line until end of file

Do While Not EOF(1)

Line Input #1, atts

each\_row\_output = Split(atts, " ")

col = 0

For X = 0 To UBound(each\_row\_output)

If each\_row\_output(X) <> "" Then 'if space,ignore

data(Y, col) = each\_row\_output(X)

col = col + 1

End If

Next

Y = Y + 1 'goto next row

Loop

'cut 5-fold

Dim RanNum(1485) As Integer

X = 1

Do While X <= 1484

RanNum(X) = Int(Rnd() \* 1484) + 1 '隨機1-1484之間的整數

Dim G As Boolean '判斷有無重複

G = True '預設沒有重複

For Y = 0 To X - 1 '開始判斷有沒有重複

If RanNum(X) = RanNum(Y) Then

G = False '有重覆設定為重新選取

Y = X '跳出迴圈

End If

Next

If G = True Then

X = X + 1 '沒有重複則繼續取下一個數

End If

Loop

'把原始資料丟到5個fold矩陣

Dim fold\_1(296, 10) As String

Dim fold\_2(297, 10) As String

Dim fold\_3(297, 10) As String

Dim fold\_4(297, 10) As String

Dim fold\_5(297, 10) As String

Dim temp\_1 As Integer 'fold\_1()的row，預設為0

Dim temp\_2 As Integer

Dim temp\_3 As Integer

Dim temp\_4 As Integer

Dim temp\_5 As Integer

For X = 1 To 1484

If RanNum(X) > 0 And RanNum(X) <= 296 Then '如果隨機的數字對應到的原data在此區間

For col = 0 To 9

fold\_1(temp\_1, col) = data(X - 1, col) 'data

Next

temp\_1 = temp\_1 + 1 'row++

ElseIf RanNum(X) > 296 And RanNum(X) <= 593 Then

For col = 0 To 9

fold\_2(temp\_2, col) = data(X - 1, col)

Next

temp\_2 = temp\_2 + 1 '到下一個row

ElseIf RanNum(X) > 593 And RanNum(X) <= 890 Then

For col = 0 To 9

fold\_3(temp\_3, col) = data(X - 1, col)

Next

temp\_3 = temp\_3 + 1 '到下一個row

ElseIf RanNum(X) > 890 And RanNum(X) <= 1187 Then

For col = 0 To 9

fold\_4(temp\_4, col) = data(X - 1, col)

Next

temp\_4 = temp\_4 + 1 '到下一個row

ElseIf RanNum(X) > 1187 And RanNum(X) <= 1484 Then

For col = 0 To 9

fold\_5(temp\_5, col) = data(X - 1, col)

Next

temp\_5 = temp\_5 + 1 '到下一個row

End If

Next

' Select Case RanNum(X)

' Case 1

' num\_in\_fold(1) = num\_in\_fold(1) + 1

' Case 2

' num\_in\_fold(2) = num\_in\_fold(2) + 1

' Case 3

' num\_in\_fold(3) = num\_in\_fold(3) + 1

' Case 4

' num\_in\_fold(4) = num\_in\_fold(4) + 1

' Case Else

' num\_in\_fold(5) = num\_in\_fold(5) + 1

' End Select

' Next X

'算歐式距離p

Dim euclidean As Double

Dim tempclass As String

Dim distance(1484, 1484) As Double '(0-1483筆data ,0-1483存跟別人的距離)

Dim class(1484, 1484) As String '對照distance()，存根某筆data的class

For X = 0 To 1483

For Y = 0 To 1483

If Y <> X Then

For col = 1 To 8

euclidean = euclidean + (CDbl(data(X, col)) - CDbl(data(Y, col))) ^ 2

Next col

euclidean = euclidean ^ 0.5

distance(X, Y) = euclidean

euclidean = 0

tempclass = data(Y, 9)

class(X, Y) = tempclass

End If

Next

Next

'紀錄k=3 用x=1483驗算ok

Dim min\_1(1484) As Double

Dim min\_2(1484) As Double

Dim min\_3(1484) As Double

Dim class\_1(1484) As String

Dim class\_2(1484) As String

Dim class\_3(1484) As String

Dim k3\_min\_dis(1484, 3) As Double

For X = 1483 To 1483

min\_1(X) = 10000

min\_2(X) = 10000

min\_3(X) = 10000

For Y = 0 To 1483

If distance(X, Y) <= min\_1(X) Then

min\_3(X) = min\_2(X)

min\_2(X) = min\_1(X)

min\_1(X) = distance(X, Y)

class\_3(X) = class\_2(X)

class\_2(X) = class\_1(X)

class\_1(X) = class(X, 9)

ElseIf distance(X, Y) >= min\_1(X) And distance(X, Y) <= min\_2(X) And distance(X, Y) <= min\_3(X) Then

min\_3(X) = min\_2(X)

min\_2(X) = distance(X, Y)

class\_3(X) = class\_2(X)

class\_2(X) = class(X, 9)

ElseIf distance(X, Y) >= min\_2(X) And distance(X, Y) <= min\_3(X) Then

min\_3(X) = distance(X, Y)

class\_3(X) = class(X, 9)

End If

Next Y

Next X

For X = 1 To 1484

Print #2, RanNum(X)

Next

Close #1

End If

End If

End Sub