GPA and CGPA calculator #By Aw Yew Lim

Start

User\_subject = []

User\_grade = []

User\_point = []

User\_credithour = []

academic\_calculator = academic\_calculator()

Exit

Function academic\_calculator()

Start

Check = “True”

While Check = “True”

Get selection

If selection == 1

Process gpacalculator()

Else If selection == 2

Process cgpacalculator()

Else If selection == 0

Check = “False”

End If

While End

Exit

Function gpacalculation()

Start

Get num\_subject

Counter1 = 0

Repeat:

Counter1 = Counter1 + 1

Get user\_subject[Counter1]

Until Counter1 == num\_subject

For item in user\_subject:

Get user\_credithour[item]

Get user\_grade[item]

End For

For item in user\_grade

If item=="A+" or item=="A"

user\_point[item]=4.00

Else If item=="A-"

user\_point[item]=3.67

Else If item=="B+"

user\_point[item]=3.33

Else If item=="B"

user\_point[item]=3.00

Else If item=="B-"

user\_point[item]=2.67

Else If item=="C+"

user\_point[item]=2.33

Else If item=="C"

user\_point[item]=2.00

Else If item=="C-"

user\_point[item]=1.67

Else If item=="D+"

user\_point[item]=1.33

Else If item=="D"

user\_point[item]=1.00

Else If item=="F"

user\_point[item]=0.00

End If

End For

Counter2 = 0

Sumofup\_uc = 0 // sum of the multiplication of user’s points and user’s credit hours

While counter2 < length of user\_subject:

X = user\_point[counter2] \* user\_credithour[counter2]

Sumofup\_uc = Sumofup\_uc + x

Counter2 = Counter2 + 1

While End

GPA = sumofup\_uc / sum of user\_credithour

Print 'Your GPA is ‘ , GPA

Print "Enter 8 to calculate again."

Print "Enter 9 to back to academic calculator."

Get selection

If selection == 8

Clear user\_subject

Clear user\_grade

Clear user\_credithour

Clear user\_point

Process gpacalculator()

Else If selection == 9

Return academic\_calculator() // “Return” clear the array at the same time.

Else

Print ‘Please insert a valid number’

End If

Exit

Function cgpacalculator()

Start

Get num\_trimester

Credit\_hour = []

Grade\_point = []

For item in range of num\_trimester:

Get Credit\_hour[item]

Get Grade\_point[item]

End For

CGPA = sum of Grade\_point / sum of Credit\_hour

Print ‘Your CGPA is ’ , CGPA

Print ‘Enter 8 to calculate again.’

Print ‘Enter 9 to back to academic calculator.’

Get selection

If selection == 8

Clear Credit\_hour

Clear Grade\_point

Process cgpacalculator()

Else If selection == 9

Return academic\_calculator()

Else

Print ‘Please insert a valid number.’

End If

Exit