Assignment – 8 pseudocodes

1. *Problem 1 solution*

CLASS Occurences

BEGIN

METHOD Main

BEGIN

CREATE array arr1[3][3]

CREATE array arr2[3][3]

READ user\_input for the values to be stored in array

PRINT “Enter 9 integers to be stored in first array”

FOR(i🡨0; i<3; i🡨i+1)

FOR(j🡨0;j<3;j🡨j+1)

arr1[i[j]🡨user\_input

ENDFOR

ENDFOR

PRINTLINE( )

PRINT “Enter 9 integers to be stored in second array”

FOR(i🡨0;i<3;i🡨i+1)

FOR(j<--0;j<3;j🡨j+1)

arr2[i][j]🡨user\_input

ENDFOR

ENDFOR

PRINT “Array A:”

PRINTLINE( )

FOR(i🡨0;i<3;i🡨i+1)

FOR(j<--0;j<3;j🡨j+1)

PRINT “ ”+arr1[i][j]

ENDFOR

PRINTLINE( )

ENDFOR

PRINTLINE( )

PRINT “Array B:”

FOR(i🡨0;i<3;i🡨i+1)

FOR(j<--0;j<3;j🡨j+1)

PRINT “ ”+arr2[i][j]

ENDFOR

PRINTLINE( )

ENDFOR

PRINTLINE( )

IF(isEquivalent(arr1,arr2)==true)THEN

PRINT “Judgment: The arrays are equivalent”

ELSE

PRINT “Judgment: The arrays are not equivalent”

ENDIF

END Main

METHOD isEquivalent(arr1,arr2)

BEGIN

FOR (i🡨0; i<2; i🡨i+1)

FOR(j🡨i+1;j<3;j🡨j+1)

IF (arr1[i][j]<arr1[i][j-1])THEN

temp🡨arr1[i][j]

arr1[i][j]🡨arr1[i][j-1]

arr1[i][j-1]=temp

ENDIF

ENDFOR

ENDFOR

FOR (i🡨0; i<2; i🡨i+1)

FOR(j🡨i+1;j<3;j🡨j+1)

IF (arr2[i][j]<arr2[i][j-1])THEN

temp🡨arr2[i][j]

arr2[i][j]🡨arr2[i][j-1]

arr2[i][j-1]=temp

ENDIF

ENDFOR

ENDFOR

a🡨false

FOR(j🡨0;j<3;j🡨j+1)

FOR(j🡨0;j<3;j🡨+1)

IF(arr1[i][j]==arr2[i][j])THEN

a🡨true

ELSE

a🡨false

ENDIF

ENDFOR

ENDFOR

RETURN a

END isEquivalent

END Occurrence

1. *Problem 2 solution*

CLASS WeeklyHours

BEGIN

METHOD Main

BEGIN

CREATE array Hours[3][7]

READ random\_value to store in the array

FOR (i🡨0; i<3; i🡨i+1)

FOR (j🡨0; j<7; j🡨j+1)

Hours[i][j]🡨random\_value

END FOR

END FOR

PRINT “Employees Data: ”

PRINTLNE( )

PRINT “ Mon Tue Wed Thu Fri Sat Sun”

PRINTLINE( )

PRINT “Employee1 ”

FOR (l🡨0; l<7; l🡨l+1)

PRINT Hours[0][l]+“ ”

END FOR

PRINTLINE( )

PRINT “Employee2 ”

FOR (l🡨0; l<7; l🡨l+1)

PRINT Hours[1][l]+ “ ”

END FOR

PRINTLINE( )

PRINT “Employee3 ”

FOR (l🡨0; l<7; l🡨l+1)

PRINT Hours[2][l]+ “ ”

END FOR

PRINTLINE( )

PRINTLINE( )

addHours(Hours)

END Main

METHOD addHours (hours)

BEGIN

CREATE array a[7]

CREATE array b[7]

CREATE array c[7]

CREATE array days[7]

days🡨{“Monday”, “Tuesday”, “Wednesday”, “Thursday”, “Friday”, “Saturday”, “Sunday”}

add1🡨0

add2🡨0

add3🡨0

FOR (i🡨0; i<7; i🡨i+1)

[i]🡨hours[0][i];

add1🡨add1+hours[0][i]

END FOR

FOR (i🡨0; i<7; i🡨i+1)

b[i]🡨hours[1][i]

add2🡨add2+hours[1][i]

END FOR

FOR (i🡨0; i<7; i🡨i+1)

c[i]🡨hours[2][i]]

add3🡨add3+hours[2][i]

END FOR

CREATE array sum[3]

sum[0]🡨add1

sum[1]🡨add2

sum[2]🡨add3

max1🡨a[0]

max2🡨b[0]

max3🡨c[0]

index1🡨0

index2🡨0

index3🡨0

FOR(i🡨0;i<a.length;i🡨i+1)

IF(a[i]>max1)THEN

max1🡨a[i]

index1🡨i

ENDIF

ENDFOR

FOR(i🡨0;i<b.length;i🡨i+1)

IF(b[i]>max2)THEN

max🡨b[i]

index2🡨i

ENDIF

ENDFOR

FOR(i🡨0;i<c.length;i🡨i+1)

IF(c[i]>max3)THEN

max3🡨[i]

index3🡨i

ENDIF

ENDFOR

PRINT “Employee1 worked the most hours on “+days[index1]

PRINT “Employee2 worked the most hours on “+days[index2]

PRINT “Employee3 worked the most hours on “+days[index3]

PRINTLINE( )

PRINT “Employee# Weekly Hours”

FOR(i🡨0;i<2;i🡨i+1)

FOR(j🡨1;j<3;j🡨j+1)

IF(sum[i]>sum[j])THEN

temp🡨sum[j]

sum[j]🡨sum[i]

sum[i]🡨temp

ENDIF

ENDFOR

ENDFOR

IF(sum[0]==add1)THEN

PRINT “ 1 ”+sum[0]

ELSE IF(sum[0]==add2)

PRINT “ 2 ”+sum[0]

ELSE

PRINT “ 3 ”+sum[0]

ENDIF

IF(sum[1]==add3)THEN

PRINT “ 3 ”+sum[1]

ELSE IF(sum[0]==add2)

PRINT “ 2 ”+sum[1]

ELSE

PRINT “ 1 ”+sum[1]

ENDIF

IF(sum[2]==add2)THEN

PRINT “ 2 ”+sum[2]

ELSE IF(sum[2]==add1)

PRINT “ 1 ”+sum[2]

ELSE

PRINT “ 3 ”+sum[0]

ENDIF

END addHours( )

END WeeklyHours