CH2120

Class 11

# Array-related Subroutines

## displayArray.f08

**subroutine** displayArray(inputArray, sizeOfArray)

**implicit** **none**

**integer**, **intent**(in) :: sizeOfArray

**real**, **dimension**(sizeOfArray), **intent**(in) :: inputArray

**integer** elementCounter

**do** elementCounter = 1, sizeOfArray

**write**(\*,10) inputArray(elementCounter)

**end** **do**

**write**(\*,\*) "------------------------"

10 **format**(f8.2)

**end** **subroutine** displayArray

## getArrayFromUser.f08

**subroutine** getArrayFromUser(sizeOfArray, userArray)

**implicit** **none**

**integer**, **intent**(in) :: sizeOfArray

**real**, **dimension**(sizeOfArray), **intent**(out) :: userArray

**integer** elementCounter

**do** elementCounter = 1, sizeOfArray

**write**(\*,10) "Enter element #", elementCounter

**read**(\*,\*) userArray(elementCounter)

**end** **do**

10 **format**(a15, i2)

**end** **subroutine** getArrayFromUser

## swapTwoElements.f08

**subroutine** swapTwoElements(inputArray, sizeOfArray, index1, index2)

**implicit** **none**

**integer**, **intent**(in) :: sizeOfArray, index1, index2

**real**, **dimension**(sizeOfArray), **intent**(inout) :: inputArray

**real** :: swapper

swapper = inputArray(index1)

inputArray(index1) = inputArray(index2)

inputArray(index2) = swapper

**end** **subroutine** swapTwoElements