var list = [Int]()

var list: Array<Int> = Array()

var list: [Int] = []

**var** list = [1, 2, 3, 4, 5]

var shoppingList: [String] = ["Eggs", "Milk"]

// shoppingList has been initialized with two initial items

**var threeDoubles = Array(repeating: 0.0, count: 3)**

**// threeDoubles is of type [Double], and equals [0.0, 0.0, 0.0]**

### Creating an Array by Adding Two Arrays Together

**You can create a new array by adding together two existing arrays with compatible types with the addition operator (+). The new array’s type is inferred from the type of the two arrays you add together:**

**var anotherThreeDoubles = Array(repeating: 2.5, count: 3)**

**// anotherThreeDoubles is of type [Double], and equals [2.5, 2.5, 2.5]**

**var sixDoubles = threeDoubles + anotherThreeDoubles**

**// sixDoubles is inferred as [Double], and equals**

**[0.0, 0.0, 0.0, 2.5, 2.5, 2.5]**

**import** Foundation

**var** list=[Int]()

**var** size : Int = 0

**func** input\_array(){

print("Enter number of elements: ",terminator:"")

**let** sz = Int(readLine()!)

size = Int(sz!)

**for** n **in** 1...size{

print("Enter data for", n, "Index: ",terminator:"")

**let** val = Int(readLine()!)

list.append(Int(val!))

}

}

**func** display\_array(){

print("Total elements: ",list.count)

**for** n **in** 0...list.count-1{

print("Data stored in ", n, "Index: ",terminator:"")

print(list[n])

}

}

**func** remove\_array(){

print("Array size before remove: ", list.count)

list.remove(at: 1)

print("Array size after remove: ", list.count)

list.removeAll()

print("Array size after remove all: ", list.count)

}

**func** main(){

input\_array()

display\_array()

remove\_array()

}

main()

import Foundation

var list = [5, 7, 9, 11, 13]

func display\_array(){

for index in 0...list.count-1{

print("list elment in index ",index," is ",list[index])

}

print("\n\n")

}

func set\_array(){

list.insert(10,at:0)

list.insert(50,at:2)

}

func main()

{

display\_array()

set\_array()

display\_array()

}

main()

import Foundation

var list = [5, 7, 9, 11, 13]

func display\_array(){

for index in 0...list.count-1{

print("list elment in index ",index," is ",list[index])

}

print("\n\n")

}

func set\_array(){

list.insert(10,at:0)

list.insert(50,at:2)

list[1] = 1000

}

func remove\_array(){

list.removeFirst()

list.removeLast()

}

func remove\_some(){

list.removeFirst(2)

list.removeLast(2)

}

func main()

{

display\_array()

set\_array()

display\_array()

remove\_array()

display\_array()

remove\_some()

display\_array()

}

main()

*//var list : Array<Int> = Array()*

*//var list: [Int] = []*

*//var list = [Int]()*

**var** list = [1, 2, 3, 4, 5]

**var** max, temp : Int

max = list.count

**for** k **in** (0...max-2){

**if**(list[k] < list[k+1]){

temp = list[k]

list[k] = list[k+1]

list[k+1] = temp

}

}

**for** k **in** (0 ... 4){

print(list[k])

}

**2**

**3**

**4**

**5**

**1**

***//What will be printed as output in the code segment***

**var list = [5, 10, 15, 20, 25, 20, 15, 10, 5]**

**var max : Int**

**max = list.count - 1**

**for k in stride(from: max, to: 1, by: -1){**

**list[k] = list[k] / list[max]**

**}**

**for k in (0 ... max){**

**print(list[k]," ",terminator:"")**

**}**

**5 10 15 20 25 20 15 10 1**

//Selection sort

*//var list : Array<Int> = Array()*

*//var list: [Int] = []*

*//var list = [Int]()*

**var** list = [1, 2, 13, 4, 5]

**var** maxIndex, maxValue, max, temp : Int

max = list.count

**for** k **in** (0...max - 2){

maxIndex = k

maxValue = list[k]

**for** j **in** (k+1 ... max - 1){

**if**(list[j] < maxValue){

maxIndex = j

maxValue = list[j]

}

}

temp = list[k]

list[k] = list[maxIndex]

list[maxIndex] = temp

}

**for** k **in** (0 ... 4){

print(list[k])

}

**1**

**2**

**4**

**5**

**13**

//Selection sort

//var list : Array<Int> = Array()

//var list: [Int] = []

//var list = [Int]()

var list = ["Tom", "Jerry","Alex", "Fred", "Ali"]

var maxIndex, max : Int

var maxValue, temp : String

max = list.count

for k in (0...max - 2){

maxIndex = k

maxValue = list[k]

for j in (k+1 ... max - 1){

if(list[j] < maxValue){

maxIndex = j

maxValue = list[j]

}

}

temp = list[k]

list[k] = list[maxIndex]

list[maxIndex] = temp

}

for k in (0 ... 4){

print(list[k])

}

**Alex**

**Ali**

**Fred**

**Jerry**

**Tom**

//Selection sort

*//var list : Array<Int> = Array()*

*//var list: [Int] = []*

*//var list = [Int]()*

**var** list = [3.4,12.2,1.8, 4.3,5.6]

**var** maxIndex : Int

**var** max : Int

**var** maxValue, temp : Double

max = list.count

**for** k **in** (0...max - 2){

maxIndex = k

maxValue = list[k]

**for** j **in** (k+1 ... max - 1){

**if**(list[j] < maxValue){

maxIndex = j

maxValue = list[j]

}

}

temp = list[k]

list[k] = list[maxIndex]

list[maxIndex] = temp

}

**for** k **in** (0 ... 4){

print(list[k])

}

**1.8**

**3.4**

**4.3**

**5.6**

**12.2**

**var** n : Int

*//var list : Array<Int> = Array()*

**var** list: [Int] = []

*//var list = [Int]()*

list.append(6)

list.append(7)

n = 6

**for** k **in** (2 ... n){

list.append(list[k - 1] + list[k - 2])

}

print("LIST VALUE: ", list[4])

//33

*//var list : Array<Int> = Array()*

*//var list: [Int] = []*

*//var list = [Int]()*

**var** list = [1, 2, 3, 4, 5]

**var** max, temp : Int

max = list.count

**for** k **in** (0...max-2){

**if**(list[k] < list[k+1]){

temp = list[k]

list[k] = list[k+1]

list[k+1] = temp

}

}

**for** k **in** (0 ... 4){

print(list[k])

}

**2**

**3**

**4**

**5**

**1**

var list = ["Houston","Katy","Spring","Tomball"]

var list = [5.5,6.2,7.1,8.55]

var list = [5,6,7,8]

list[0] = 100;list[1] = 200;list[2] = 300; list[3] = 400

//Printing array values

print("list1 values: ", terminator:" ")

for x in list{

print(x,separator:" ", terminator:" ")

}

func displayList(list : [Int]) {

print("List data items: ", terminator:" ")

for x in list

{

print(x, terminator:" ")

}

print()

}

func displayList(list : inout[Int]) {

print("List data items: ", terminator:" ")

for x in list

{

print(x, terminator:" ")

}

print()

}

Q1:

var list = [Int]()

var n : Int=8

list.append(4)

list.append(7)

for k in (2 ... n-1){

list.append(list[k-1] + list[k-2])

}

print(list[n])

Q2:

var list = [1, 2, 3, 4, 5]

var temp : Double = 0.0

for k in (0 ... list.count - 1){

temp += Double(list[k])

}

print(temp / Double(list.count))

Q3:

var list = [1, 12, 3, 14, 5]

var temp : Int = 0

var max :Int = list.count - 1

for k in (0 ... list.count - 1){

temp = (list[k])

list[k] = list[max - k]

list[max - k] = temp

}

print(list)

Q4:

var list = [1, 12, 3, 14, 5]

var temp : Int = 0

var max :Int = list.count - 1

var n : Int = list.count / 2

for k in (0 ... n){

temp = list[k]

list[k] = list[max - k]

list[max - k] = temp

}

print(list)

var list = [2,4, 8, 16, 32, 64, 128, 256]

var temp : Int = 0

var max :Int = list.count - 1

for k in (1 ... max){

list[k] = list[k] / list[k - 1]

}

print(list)