Assignment

Submitted by

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**Exercise: 1 :**

**Find the max element in an array**

Int max,I;

Max = a[0];

for(i = 0 ; i<=n ; i++)

if(a[i]>max)

max = a[i];

prin(max);

**Pre Condition :**

* get a array for find the max element initialize max for store the max value
* initialize max = first element of array
* compare 1st value to all other values one by one if max>a[i] store the value = max
* print the max

**Post condition :**

* **Once the loop run store the value in max and print the max**
* **Max = a[i]**

**Loop invariant :**

* **Start the iteration I = 0 and check the condition i<=n condition is true increment I value and store the value in a[i] condition is false straightly check other value of array loop terminate after check all value**

**Loop variant :**

* **Loop will terminate after compare all values from a[i]<=n**

**Exercise: 2 :**

**Move zeros in end of array**

**Int n , I, count = 0;**

**Int a[];**

**Int res[];**

**for(i = 0 ; i < n ; i++)**

**if(a[i] != 0)**

**res[count++]**

**for(i = count ; i <n ; i++)**

**res[i]**

**for(i = 0 ; i<n ; i++)**

**print(res[i])**

**Pre Condition :**

* **Declare n for number of values in array and count for increase the value of index**
* **Declare res[] for store the value**

**Post condition :**

* **Print the all values of the array and get the result for all zeros in end of the array to print using res[]**

**Loop invariant :**

* **For(i=0;i<n;i++) loop is used for find the number is 0 or not an array if a[i] !=0 store res[] = a[i] and increase the count value for move to next index of array if condition is false then check next number of an array**
* **For(i=count;i<n;i++) loop is used for store zeros in end of the array**
* **For(i=0;i<n;i++) loop is used for print the value of array res[]**

**Loop variant :**

* **1st loop will terminate after store all number in front of array**
* **2nd loop will terminate after store all zeros in end of array**
* **3rd loop will terminate print the array res[]**