PRACTICE-PROJECT1

IMPLEMENTING THE LINEAR SEARCH ALGORITHM –

**package** project;

**import** java.util.InputMismatchException;

**import** java.util.Scanner;

**public** **class** LinearSearch {

**public** **int** linearSearch(**int** arr[], **int** key) {

**for**(**int** i=0; i<arr.length; i++) {

**if**(arr[i] == key) {

**return** i;

}

}

**return** -1;

}

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

LinearSearch obj = **new** LinearSearch();

**try** {

System.***out***.println("Enter the size of array: ");

**int** size = sc.nextInt();

**int** arr[] = **new** **int**[size];

System.***out***.println("Enter the array elements: ");

**for**(**int** i=0; i<size; i++) {

arr[i] = sc.nextInt();

}

System.***out***.println("Enter the value to be searched: ");

**int** key = sc.nextInt();

**int** index = obj.linearSearch(arr, key);

**if**(index == -1) {

System.***out***.println(key+" is not found");

}

**else** {

System.***out***.println(key+" is found at index "+index);

}

} **catch** (InputMismatchException e) {

System.***out***.println("Invalid input");

}

sc.close();

}

}