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Set 2

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// Online Java Compiler
// Use this editor to write, compile and run your Java code online
// Q.1) Accept 10 number in an array. Display all even number at the beginning and all Odd at the end. Use only one loop

class Main {

    public static void evensort(int arr[]){

        String even = "";
        String odd = "";

        for (int i=0; i<=arr.length-1; i++) {
            if (arr[i] % 2 == 0) {
                even += arr[i] + " ";
            } else {
                odd += arr[i] + " ";
            }
        }

        System.out.print(even + odd);
```

```
    }


    public static void main(String[] args) {




        int arr[] = {1,2,3,4,5,6,7,8,9,0};
        evensort(arr);

    }
}
```

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Q.2) Accept 5 number in an array and sort it. Accept a number from user and check if it is there in an array or not use binary search.

```
import java.util.Arrays;

class Main {

    public static void search(int arr[], int key) {

        int left = 0;
        int right = arr.length - 1;
        boolean found = false;

        while (left <= right) {

            int mid = (left + right) / 2;

            if (arr[mid] == key) {
                System.out.println("Key found at index " + mid);
                found = true;
                break;
            }
            else if (key<arr[mid]) {
                right = mid - 1;
            }
            else {
                left = mid + 1;
            }
```

```
        }

        if (!found) {
            System.out.println("Key not found");
        }
    }

    public static void main(String[] args) {

        int arr[] = {8, 2, 10, 4, 6};


        Arrays.sort(arr);

        int key = 6;

        search(arr, key);
    }
}
```