

Arrays

Q1) Check if repeated elements is there or not

Output

```
for(int i = 0 to i < size)
```

fun

```
for(int i = 0 to i < arr.length)
```

```
for(int j = i + 1; j < arr.length)
```

```
if(arr[j] == arr[i])
```

true

else

false

Q2) rotated Array

```
int low = 0
```

```
high = arr.length - 1
```

```
while (low <= high)
```

$$\text{mid} = \frac{\text{low} + \text{high}}{2}$$

```
if (arr[mid] == key)
```

```
return mid;
```

left half is sorted

if ($\text{arr}[\text{mid}] \geq \text{arr}[\text{low}]$) {

 if (~~key~~ $\text{arr}[\text{low}] \leq \text{key}$ $\&$ $\text{arr}[\text{mid}] > \text{key}$)

 high = mid - 1

 }

else

~~Mid =~~ low = mid + 1;

 }

 }

else {

 if (~~arr[low] <= arr[high]~~ $\text{arr}[\text{mid}] < \text{key}$ $\&$ $\text{arr}[\text{high}] \geq \text{key}$)

 ?

 low = mid + 1

 }

else {

 high = mid - 1

 }