Function A is an implementation of binary search algorithm to find the largest index of an integer k in a non descending size-n array Arr. If k does not exist in Arr, return -1. But

- there are bugs in the code, please find them and fix them. 1. int A(int Arr[], int k) 2. {
 - 3. int min = 0, max = Arr.length-1, mid;
 - 4. while(min < max){ 5. mid = min + (max - min)/2;
 - if (Arr[mid] < k)

 - min = mid:
 - }else{ max = mid - 1:
 - 9.
 - 10.
 - 11.
 - 12. $if(Arr[max] == k){$ 13.
 - return max; 14. }else{
 - return -1;
 - 15. 16.
 - 17.}

6.

8.

Function A is an implementation of binary search algorithm to find the largest index of an integer k in a non descending size-n array Arr. If k does not exist in Arr, return -1. But there are bugs in the code, please find them and fix them.

```
1. int A(int Arr[], int k)
                                                  1. int A(int Arr∏, int v)
2. {
3.
     int min = 0, max = Arr.length-1, mid;
                                                  3.
                                                       int min = 0, max = Arr.length, mid;
4.
     while(min < max){
                                                       while(min < max){
5.
        mid = min + (max - min)/2;
                                                  5.
                                                          mid = (max + min)/2;
6.
        if (Arr[mid] < k)
                                                  6.
                                                          if (mid < k){
```

8.

9.

10.

11.

12.

min = mid:

 $if(Arr[max] == k){}$

max = mid - 1:

}else{

min = mid+1

max = mid

 $if(Arr[max] == k){$

}else{

8.

9.

10.

11.

12.

13. return max; 13. return max; }else{ }else{ 14. 15. return -1; 15. return -1; 16. 16. } Wrong answer, try array 1,2,2 and find 2 Function A is an implementation of binary search algorithm to find the largest index of an integer k in a non descending size-n array Arr. If k does not exist in Arr, return -1. But there are bugs in the code, please find them and fix them.

```
1. int A(int Arr[], int k)
                                                  1. int A(int Arr∏, int v)
2. {
3.
     int min = 0, max = Arr.length-1, mid;
                                                  3.
                                                       int min = 0, max = Arr.length, mid;
4.
     while(min < max){
                                                       while(min < max){
5.
        mid = min + (max - min)/2;
```

5. mid = (max + min)/2;if $(Arr[mid] \le k)$ 6. 6. if (mid < k){

min = mid:

}else{

8.

9. max = mid - 1: 9. max = mid - 1: 10. 10. 11. 11. 12. $if(Arr[max] == k){$ 12. $if(Arr[max] == k){}$ 13. return max; 13. return max; }else{ 14. }else{ 15. return -1; 15. return -1; 16. 16. } Wrong answer, try array 1,2,2 and find 2

8.

min = mid:

}else{

Function A is an implementation of binary search algorithm to find the largest index of an integer **k** in a non_descending size-n array **Arr**. If k does not exist in **Arr**, return -1. But there are bugs in the code, please find them and fix them.

```
1. int A(int Arr[], int k)
2. {
3.
    int min = 0, max = Arr.length-1, mid;
    while(min < max){
5.
       mid = min + (max - min + 1)/2;
6.
       if (Arr[mid] \le k)
         min = mid:
8.
    }else{
9.
         max = mid - 1:
10.
11.
12.
     if(Arr[max] == k){
13.
       return max;
14.
     }else{
15.
       return -1;
16.
     Correct answer
```