

Ordenamiento de burbuja (Bubble Sort)

Martin Nievas

```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
```

41
23
346
76
9

```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[j] > a[j+1]){
                temp = arreglo[j];
                arreglo[j] = arreglo[j+1];
                arreglo[j+1] = temp;
            }
        }
    }
}
```

41
23
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    int a[N] = {41, 23, 346, 76, 9};
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        for(j = 0; j < N-1; j++){
            if (a[j] > a[j+1]){
                temp = arreglo[j];
                arreglo[j] = arreglo[j+1];
                arreglo[j+1] = temp;
            }
        }
    }
}
```

41
23
346
76
9

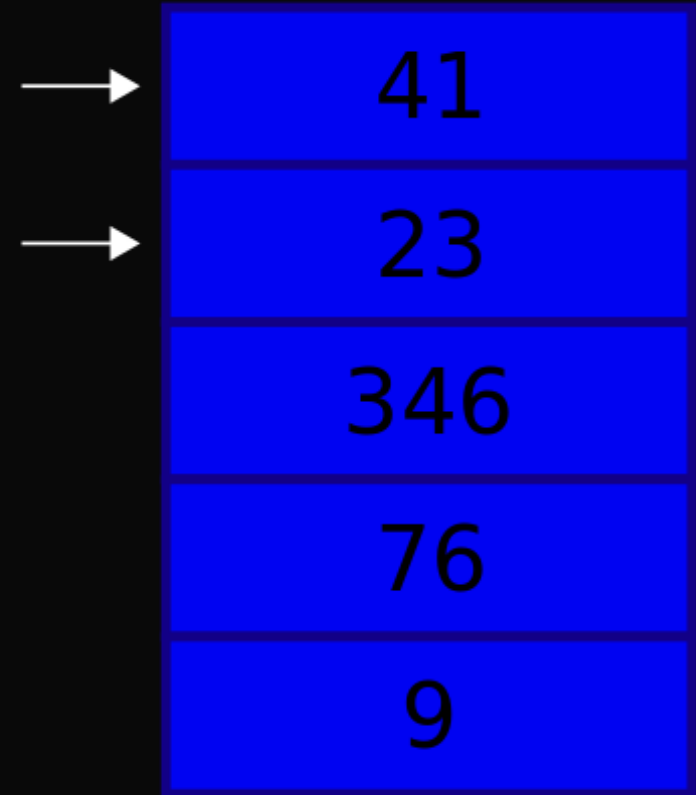
i: 0, j:0

```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[j] > a[j+1]){
                temp = arreglo[j];
                arreglo[j] = arreglo[j+1];
                arreglo[j+1] = temp;
            }
        }
    }
}
```

41
23
346
76
9

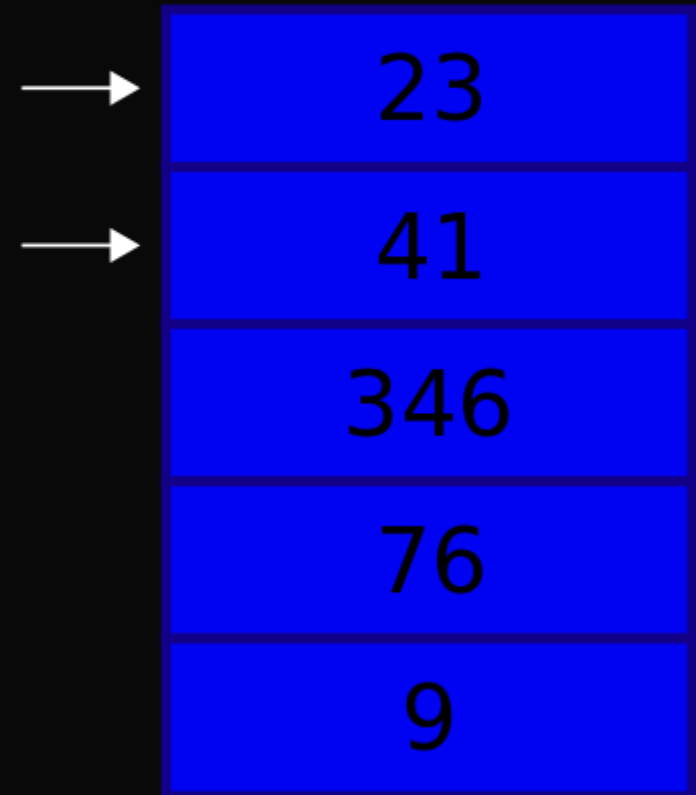
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#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[0] > a[1]){
                temp = arreglo[0];
                arreglo[0] = arreglo[1];
                arreglo[1] = temp;
            }
        }
    }
}
```

i: 0, j:0



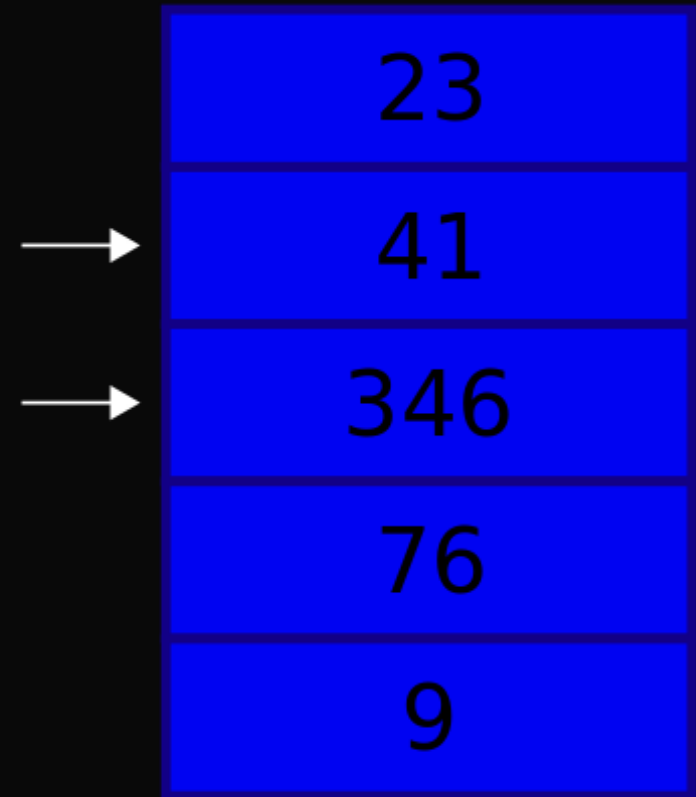
```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[0] > a[1]){
                temp = arreglo[0];
                arreglo[0] = arreglo[1];
                arreglo[1] = temp;
            }
        }
    }
}
```

i: 0, j:0



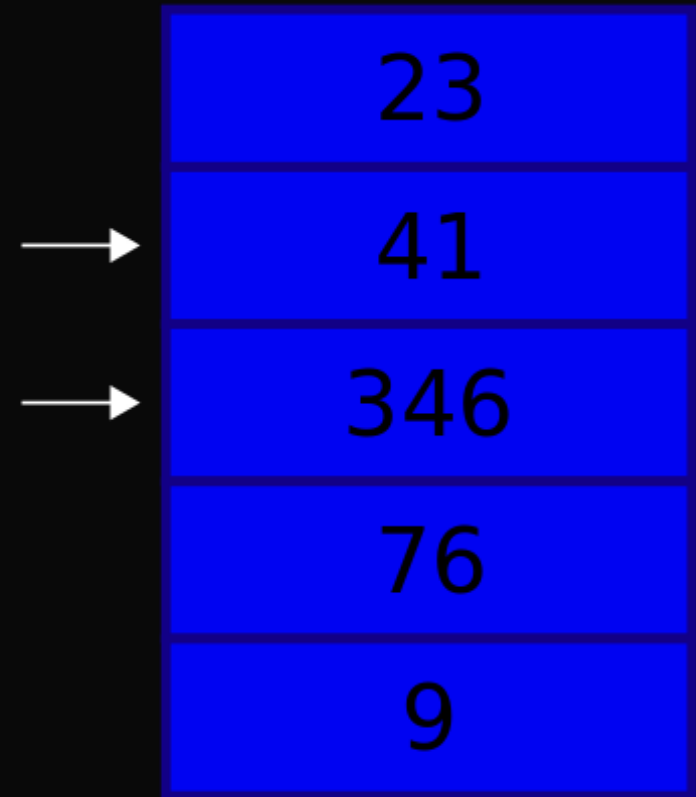
```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[1] > a[2]){
                temp = arreglo[1];
                arreglo[1] = arreglo[2];
                arreglo[2] = temp;
            }
        }
    }
}
```

i: 0, j:1



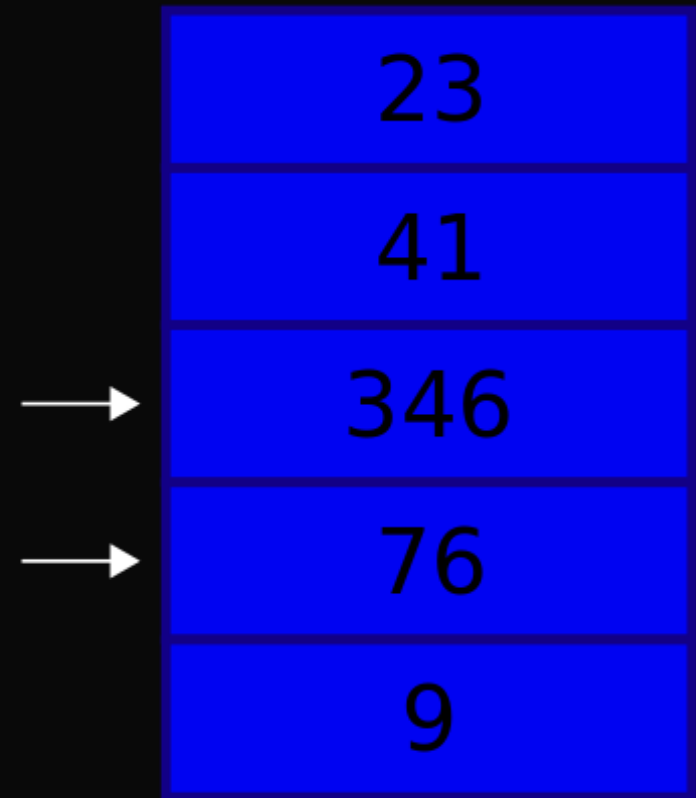

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int main(){
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    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[1] > a[2]){
                temp = arreglo[1];
                arreglo[1] = arreglo[2];
                arreglo[2] = temp;
            }
        }
    }
}
```

i: 0, j:1



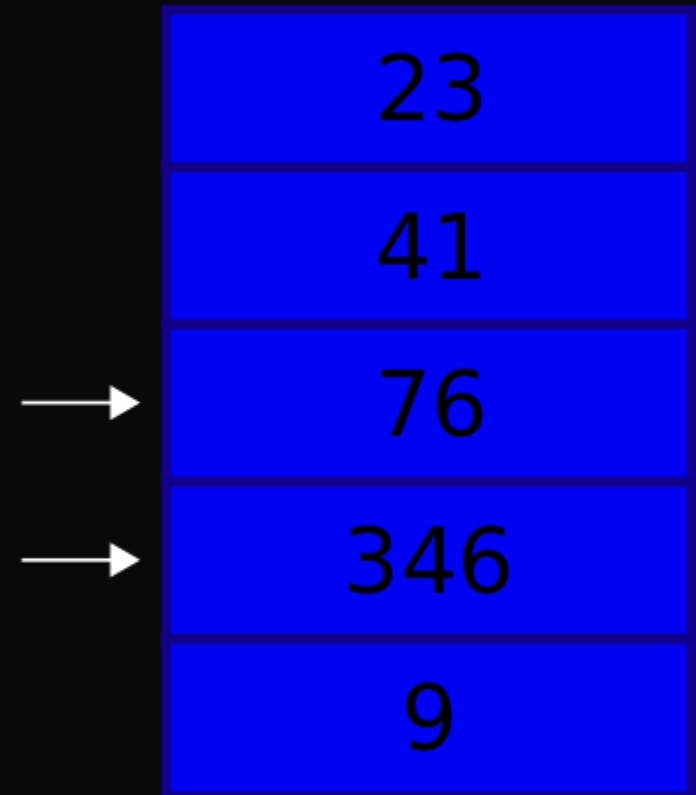
i: 0, j:2

```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[2] > a[3]){
                temp = arreglo[2];
                arreglo[2] = arreglo[3];
                arreglo[3] = temp;
            }
        }
    }
}
```



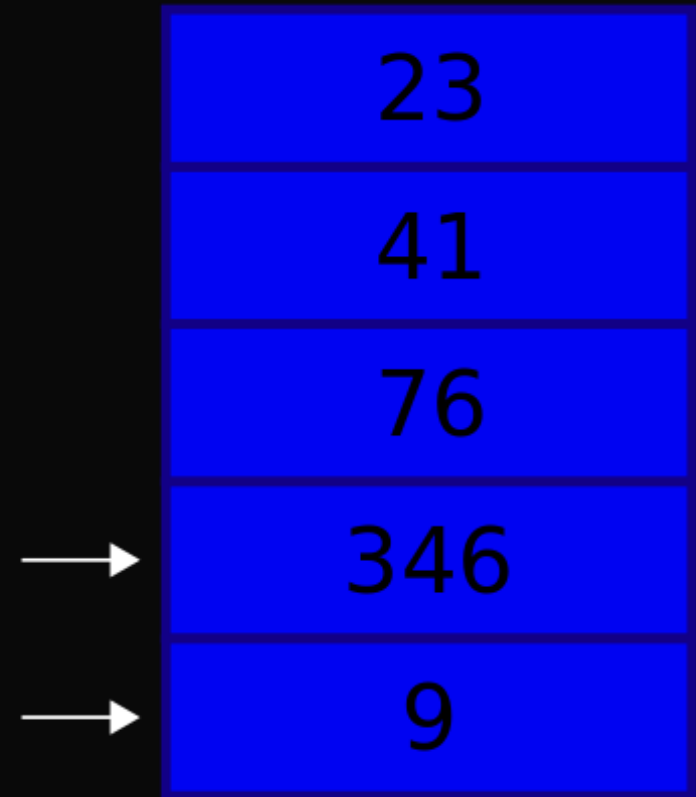
i: 0, j:2

```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[2] > a[3]){
                temp = arreglo[2];
                arreglo[2] = arreglo[3];
                arreglo[3] = temp;
            }
        }
    }
}
```



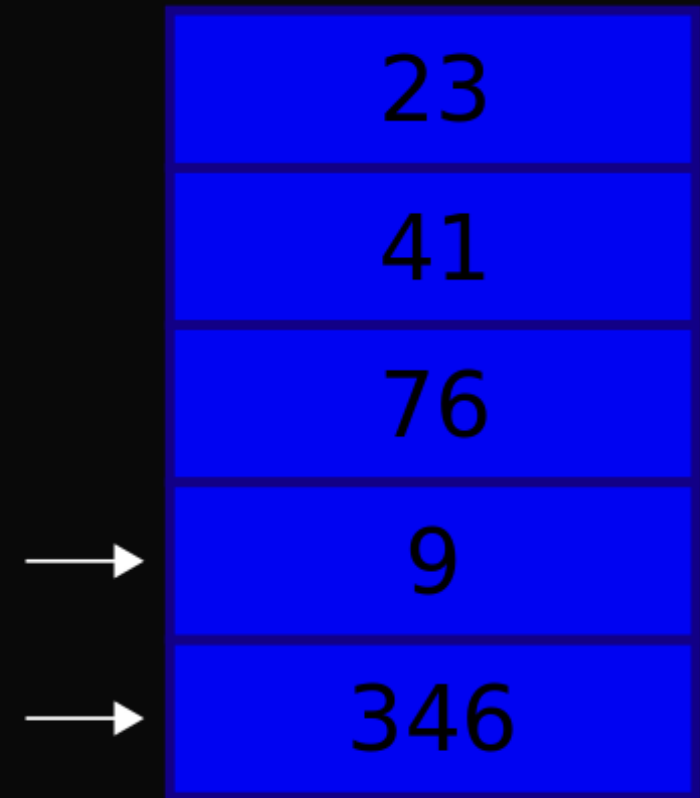
i: 0, j:3

```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[3] > a[4]){
                temp = arreglo[3];
                arreglo[3] = arreglo[4];
                arreglo[4] = temp;
            }
        }
    }
}
```



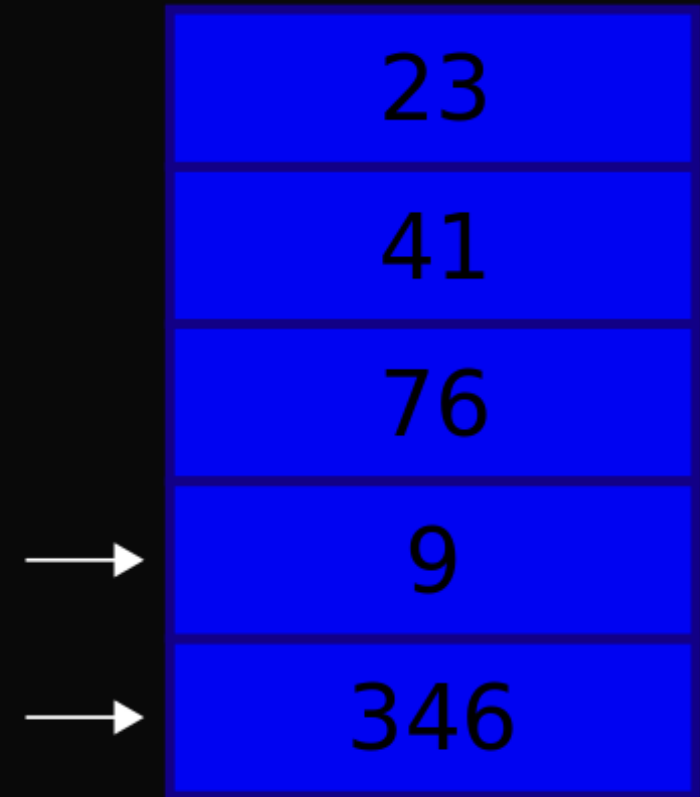
i: 0, j:3

```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[3] > a[4]){
                temp = arreglo[3];
                arreglo[3] = arreglo[4];
                arreglo[4] = temp;
            }
        }
    }
}
```



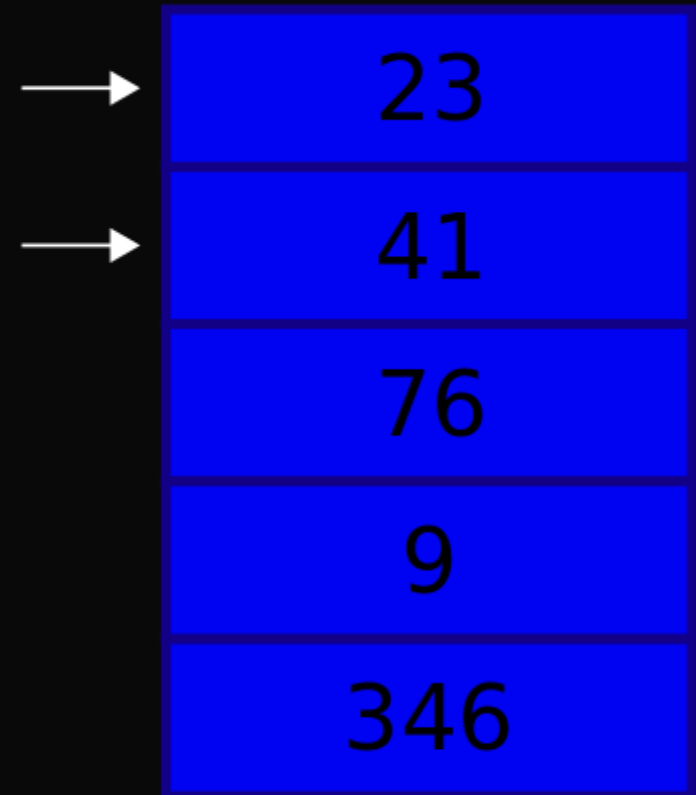
i: 0, j:3

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int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[3] > a[4]){
                temp = arreglo[3];
                arreglo[3] = arreglo[4];
                arreglo[4] = temp;
            }
        }
    }
}
```



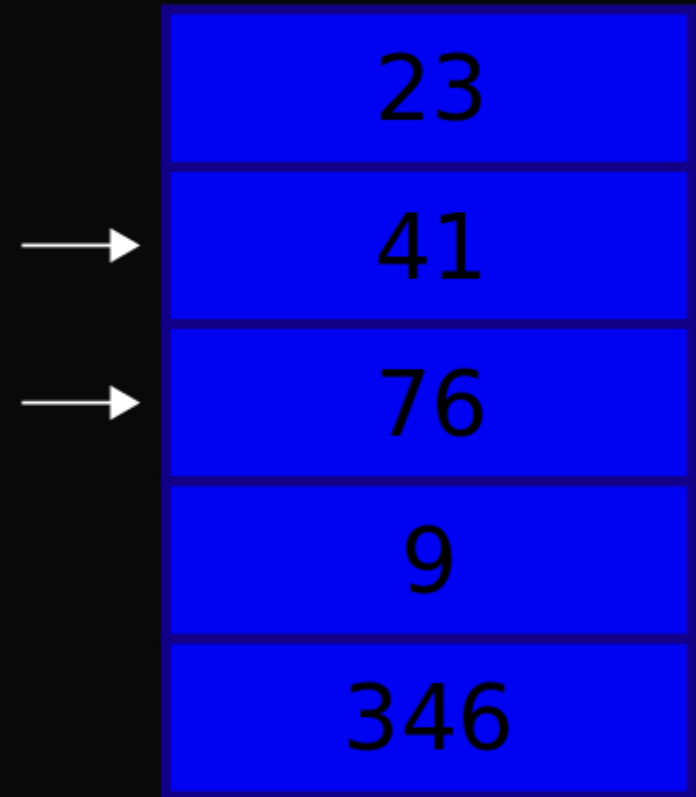
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#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[0] > a[1]){
                temp = arreglo[1];
                arreglo[0] = arreglo[1];
                arreglo[1] = temp;
            }
        }
    }
}
```

i: 1, j:0



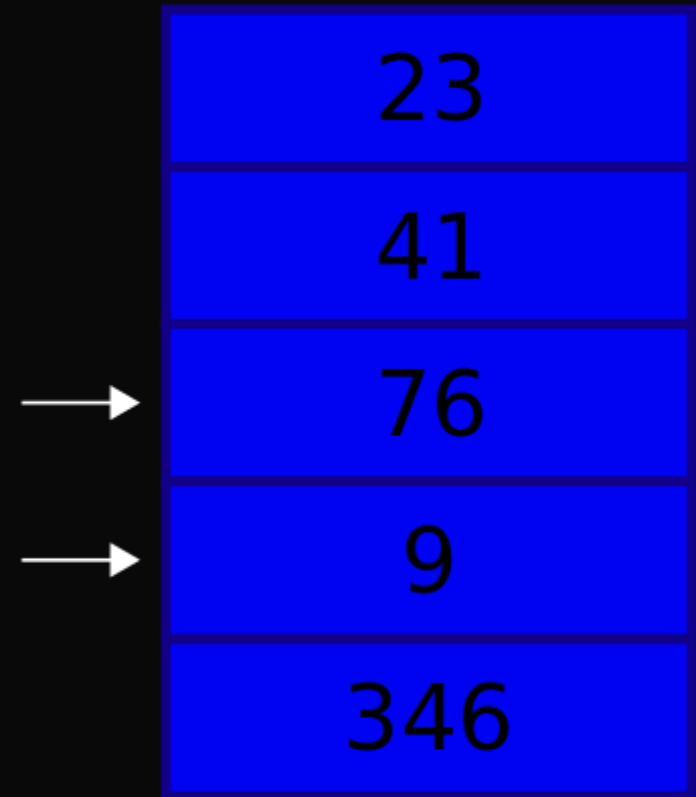
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    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[1] > a[2]){
                temp = arreglo[1];
                arreglo[1] = arreglo[2];
                arreglo[2] = temp;
            }
        }
    }
}
```

i: 1, j:1



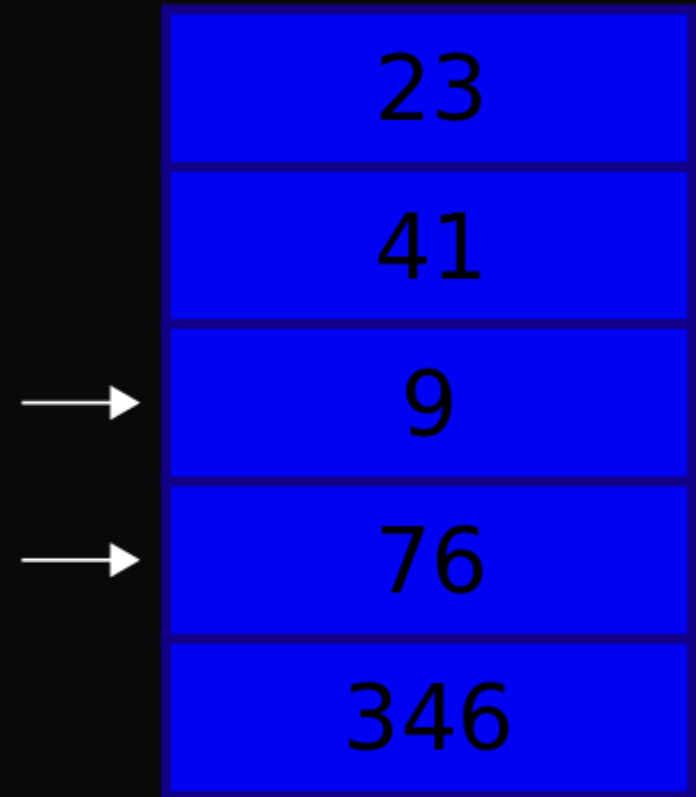
i: 1, j:2

```
#define N 5
int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1; j++){
            if (a[2] > a[3]){
                temp = arreglo[2];
                arreglo[2] = arreglo[3];
                arreglo[3] = temp;
            }
        }
    }
}
```



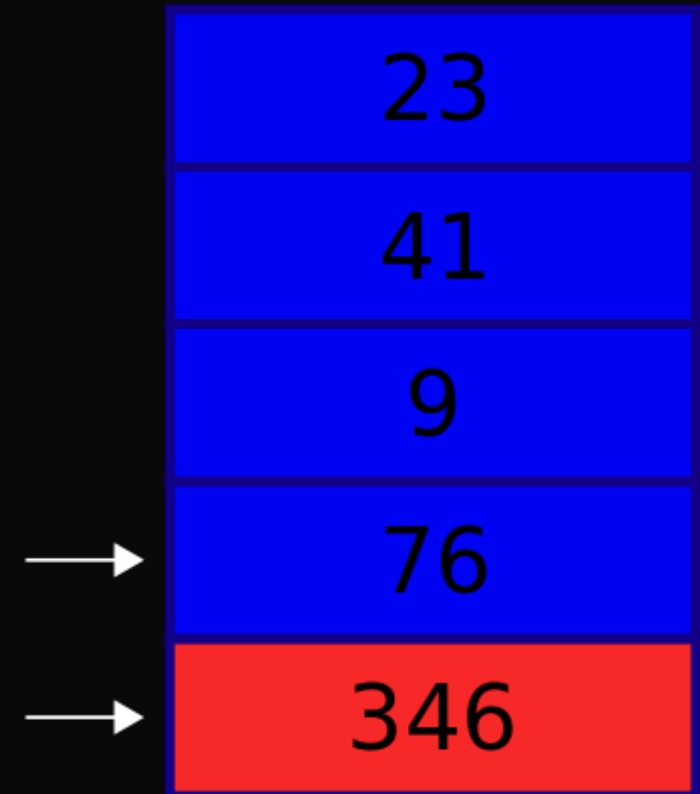
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                temp = arreglo[2];
                arreglo[2] = arreglo[3];
                arreglo[3] = temp;
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    }
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```



i: 1, j:3

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    int a[N] = {41, 23, 346, 76, 9};
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            if (a[3] > a[4]){
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                arreglo[3] = arreglo[4];
                arreglo[4] = temp;
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        }
    }
}
```



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int main(){
    int a[N] = {41, 23, 346, 76, 9};
    int i, j;
    for(i = 0; i < N ; i ++){
        for(j = 0; j < N-1-i; j++){
            if (a[2] > a[3]){
                temp = arreglo[2];
                arreglo[2] = arreglo[3];
                arreglo[3] = temp;
            }
        }
    }
}
```

i: 1, j:2

