



**UNIVERSIDAD NACIONAL AUTÓNOMA DE
MÉXICO**

FACULTAD DE ESTUDIOS SUPERIORES ARAGÓN

INGENIERÍA EN COMPUTACIÓN

Estructura de datos

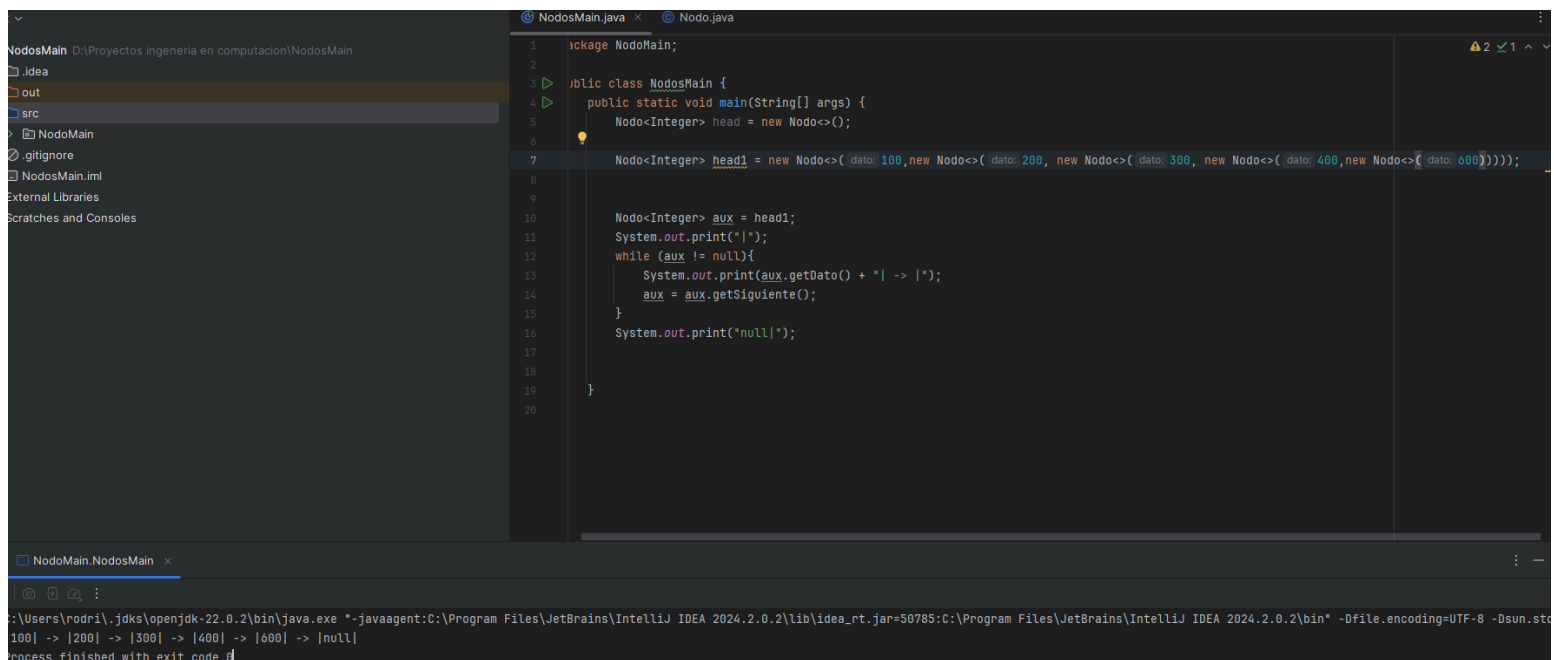
TAREA 3

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Imprimir con un while la estructura

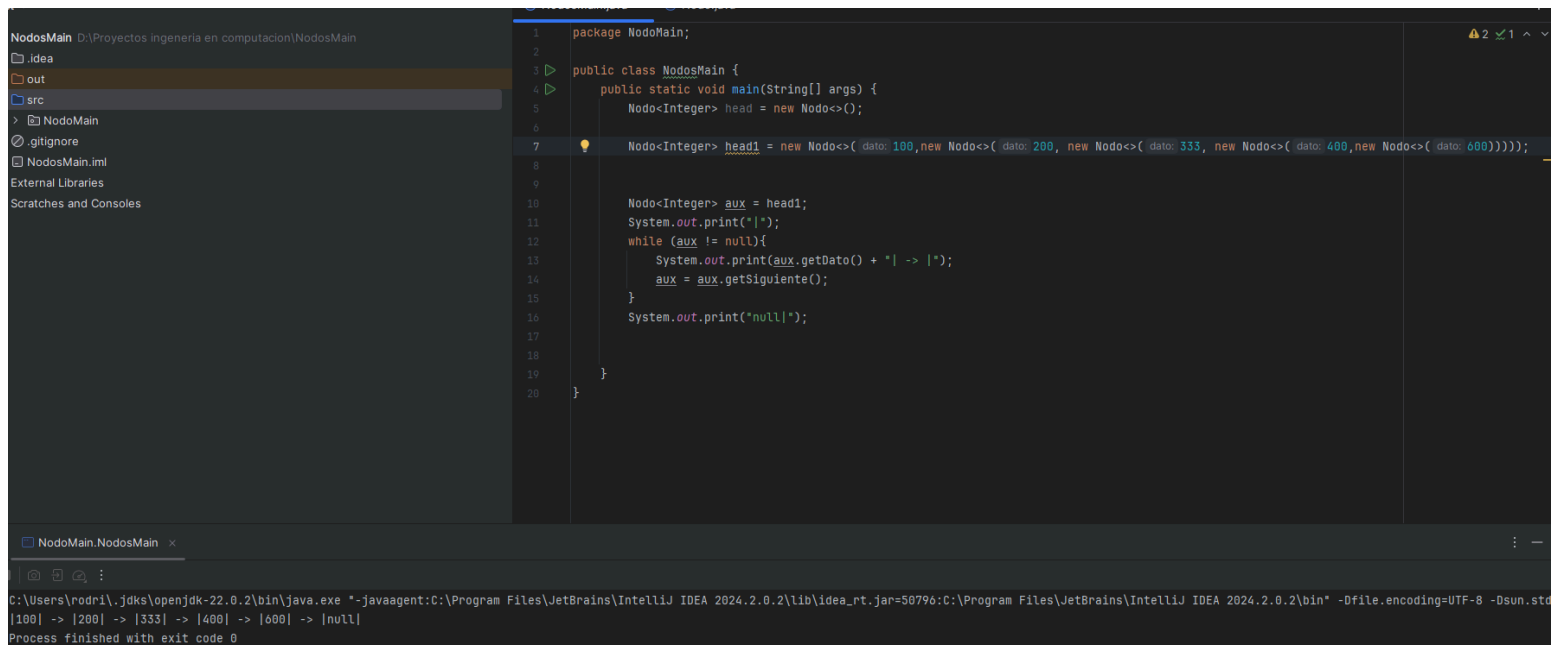


The screenshot shows the IntelliJ IDEA IDE with a project named 'NodosMain'. The source code in 'NodosMain.java' defines a linked list structure. The 'main' method creates a head pointer and a series of nodes with data values 100, 200, 300, 400, and 600. A while loop is used to traverse the list and print each node's data followed by a right arrow. The console output at the bottom shows the sequence: '100| -> |200| -> |300| -> |400| -> |600| -> |null|'.

```
1 package NodosMain;
2
3 public class NodosMain {
4     public static void main(String[] args) {
5         Nodo<Integer> head = new Nodo<>();
6
7         Nodo<Integer> head1 = new Nodo<>({ dato: 100, new Nodo<>({ dato: 200, new Nodo<>({ dato: 300, new Nodo<>({ dato: 400, new Nodo<>({ dato: 600})})})})});
8
9
10        Nodo<Integer> aux = head1;
11        System.out.print("|");
12        while (aux != null){
13            System.out.print(aux.getDato() + "| -> |");
14            aux = aux.getSiguiente();
15        }
16        System.out.print("null|");
17
18    }
19
20 }
```

Process finished with exit code 0

Cambiar el valor del tercer nodo de “300” a “333”



This screenshot shows the same IntelliJ IDEA environment, but the value of the third node in the linked list has been changed from 300 to 333. The code in 'NodosMain.java' is updated accordingly. The console output now reflects this change, showing the sequence: '100| -> |200| -> |333| -> |400| -> |600| -> |null|'.

```
1 package NodosMain;
2
3 public class NodosMain {
4     public static void main(String[] args) {
5         Nodo<Integer> head = new Nodo<>();
6
7         Nodo<Integer> head1 = new Nodo<>({ dato: 100, new Nodo<>({ dato: 200, new Nodo<>({ dato: 333, new Nodo<>({ dato: 400, new Nodo<>({ dato: 600})})})})});
8
9
10        Nodo<Integer> aux = head1;
11        System.out.print("|");
12        while (aux != null){
13            System.out.print(aux.getDato() + "| -> |");
14            aux = aux.getSiguiente();
15        }
16        System.out.print("null|");
17
18    }
19
20 }
```

Process finished with exit code 0

Agregar “700” al final

The screenshot shows the IntelliJ IDEA IDE with a project named 'NodosMain'. The 'src' directory contains a file 'NodoMain.java'. The code in 'NodoMain.java' is as follows:

```
1 package NodosMain;
2
3 public class NodosMain {
4     public static void main(String[] args) {
5         Nodo<Integer> head = new Nodo<>();
6
7         head = new Nodo<> ( dato: 100, new Nodo<> ( dato: 200, new Nodo<> ( dato: 333, new Nodo<> ( dato: 400, new Nodo<> ( dato: 600, new Nodo<> ( dato: 700 )) )) ));
8
9
10        Nodo<Integer> aux = head;
11        System.out.print("|");
12        while (aux != null) {
13            System.out.print(aux.getdato() + "| -> |");
14            aux = aux.getSiguiente();
15        }
16        System.out.print("null");
17    }
18 }
19
20
```

The console output at the bottom shows the linked list structure: |100| -> |200| -> |333| -> |400| -> |600| -> |700| -> |null|. The process finished with exit code 0.

Agregar “50” al inicio

The screenshot shows the IntelliJ IDEA IDE with the same project 'NodosMain'. The 'src' directory contains a file 'NodoMain.java'. The code in 'NodoMain.java' is as follows:

```
1 package NodosMain;
2
3 public class NodosMain {
4     public static void main(String[] args) {
5         Nodo<Integer> head = new Nodo<>();
6
7         head = new Nodo<> ( dato: 50, new Nodo<> ( dato: 100, new Nodo<> ( dato: 200, new Nodo<> ( dato: 333, new Nodo<> ( dato: 400, new Nodo<> ( dato: 600, new Nodo<> ( dato: 700 )) )) )) ));
8
9
10        Nodo<Integer> aux = head;
11        System.out.print("|");
12        while (aux != null) {
13            System.out.print(aux.getdato() + "| -> |");
14            aux = aux.getSiguiente();
15        }
16        System.out.print("null");
17    }
18 }
19
20
```

The console output at the bottom shows the linked list structure: |50| -> |100| -> |200| -> |333| -> |400| -> |600| -> |700| -> |null|. The process finished with exit code 0.