#append(value) adds a new node containing value to the end of the list

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
        list.prepend(5);
//      list.size();
//      list.head();
//      list.tail();
//      list.at(2);
//      list.pop();
//      list.contains(21);
//      list.find(15);

        list.printList();
    }

}
```

Run   ▣ Main ✕

"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\Inte
10 20 30

Process finished with exit code 0

#prepend(value) adds a new node containing value to the start of the list

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
        list.prepend( value: 5);
//        list.size();
//        list.head();
//        list.tail();
//        list.at(2);
//        list.pop();
//        list.contains(21);
//        list.find(15);

        list.printList();
    }

}
```

Main ×

"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\
5 10 20 30

Process finished with exit code 0

#size returns the total number of nodes in the list

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
//        list.prepend(5);
        list.size();
//        list.head();
//        list.tail();
//        list.at(2);
//        list.pop();
//        list.contains(21);
//        list.find(15);

        list.printList();
    }

}
```

Run   Main ×

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Prog
3
10 20 30

Process finished with exit code 0
```

#head returns the first node in the list

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
        list.prepend(5);
        list.size();
        list.head();
        list.tail();
        list.at(2);
        list.pop();
        list.contains(21);
        list.find(15);

        list.printList();
    }

}
```

Main ✕

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaag
10.
10 20 30

Process finished with exit code 0
```

#tail returns the last node in the list

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
//        list.prepend(5);
//        list.size();
//        list.head();
        list.tail();
//        list.at(2);
//        list.pop();
//        list.contains(21);
//        list.find(15);

        list.printList();
    }

}
```

Main ×

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent
30
10 20 30

Process finished with exit code 0
```

#at(index) returns the node at the given index

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
//        list.prepend(5);
//        list.size();
//        list.head();
//        list.tail();
        list.at(index: 2);
//        list.pop();
//        list.contains(21);
//        list.find(15);

        list.printList();
    }

}
```

Main ✕

"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Pro
30
10 20 30

Process finished with exit code 0

#pop removes the last element from the list

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure(
        list.append(10);
        list.append(20);
        list.append(30);
//        list.prepend(5);
//        list.size();
//        list.head();
//        list.tail();
//        list.at(2);
        list.pop();
//        list.contains(21);
//        list.find(15);

        list.printList();
    }

}
```

Main ✕

"C:\Program Files\Java\jdk-21\bin\java.exe" "-jav
10 20

Process finished with exit code 0

#contains?(value) returns true if the passed in value is in the list and otherwise returns false.

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
//        list.prepend(5);
//        list.size();
//        list.head();
//        list.tail();
//        list.at(2);
//        list.pop();
        list.contains(20);
//        list.find(15);

        list.printList();
    }

}
```

Main ×

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Pro
true
10 20 30

Process finished with exit code 0
```

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
//        list.prepend(5);
//        list.size();
//        list.head();
//        list.tail();
//        list.at(2);
//        list.pop();
        list.contains(21);
//        list.find(15);

        list.printList();
    }

}
```

Main ×

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C
false
10 20 30

Process finished with exit code 0
```

#find(value) returns the index of the node containing value, or nil if not found.

```java
public class Main {
    public static void main(String[] args) {
        DataStructure list = new DataStructure();
        list.append(10);
        list.append(20);
        list.append(30);
//        list.prepend(5);
//        list.size();
//        list.head();
//        list.tail();
//        list.at(2);
//        list.pop();
//        list.contains(21);
        list.find( value: 20); •

        list.printList();
    }


}
```

Main ✕

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Pro
1 •
10 20 30

Process finished with exit code 0
```