

18 Mar 2023

Strings

① int → Datatype (99% of the time, we use this)

② Integer is a class

- parseInt() → It converts string into int format

DI

Dr. Darsha... (you)

Your screen is being shared

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Expand Preview

③ Float class

- parseFloat()  
④ Double class  
- parseDouble()

Screen - Dr. Darsha... (you)



Start Open Session



Stop Sharing



Video Off



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More



Leave

```
Main.java x
Main.java > Main > main(String[])
23 // Read two numbers
24 import java.io.*;
25 class Main
26 {
    Run | Debug
    public static void main(String[] args) throws IOException
    {
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
        // this class always accepts the input in the String format only
        String s;

        System.out.print("Enter no1:");
        s = br.readLine(); 100 '100'
        int no1 = Integer.parseInt(s);

        System.out.print("Enter no2:");
        s = br.readLine(); 200
        int no2 = Integer.parseInt(s);

        ✓ int res = no1+no2;
        System.out.print("Addition= "+res);
    }
}
```

Handwritten annotations:

- Boxed '100' and '200' with arrows pointing to `s = br.readLine()` and `Integer.parseInt(s)` respectively.
- Boxed `no1` and `no2` with arrows pointing to `Integer.parseInt(s)` and `no1+no2` respectively.
- Boxed `res` with an arrow pointing to `System.out.print("Addition= "+res);`

Ln 42, Col 44 Spaces: 4 UTF-8 LF Java

<https://my.newtonschool.co/playground/code/xdif8io4lqka/>

Newton School

Arena question - Simple Transpose  
by Dr. Darshan Ingle

Take a Tour Report

Java (OpenJDK 13.0.1)

16px Run Submit

Question Status Editorial

Simple Transpose  
Time Limit: 2 sec  
Memory Limit: 128000 kB

View Solution

Problem Statement

You are given a NxN matrix. You need to find the transpose of the matrix.

The matrix is of form:

abc...  
def...  
ghi...

There are N elements in each row.

Input

The first line of the input contains an integer N denoting the size of the square matrix.  
The next N lines contain N single-spaced integers.

Constraints

1 <= N <= 100  
1 <= A[i] <= 100000

Output

Output the transpose of the matrix in similar format as that of the input.

Example

Sample Input

Handwritten notes:

- $A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}_{2 \times 3}$
- $A^T = \begin{bmatrix} 1 & 4 \\ 2 & 5 \\ 3 & 6 \end{bmatrix}_{3 \times 2}$
- $A[i][j] = A[j][i]$
- Matrix diagram showing  $A_{ij}$  and  $A_{ji}$  with values 00, 01, 02, 10, 11, 12, 20, 21.

```
1 import java.io.*;
2 import java.util.*;
3
4
5
6 class Main
7 {
8     public static void main (String[] args) throws IOException
9     {
10
11         BufferedReader br=new BufferedReader(new InputStreamReader
12         int n=Integer.parseInt(br.readLine());
13         String arr[] []=new String[n][n];
14         String transpose[] []=new String[n][n];
15         int row;
16         int cols;
17         for(row=0; row<n; row++)
18         {
19             String rowNum=br.readLine();
20             String rowVals[]=rowNum.split(" ");
21             for(cols=0; cols<n; cols++)
22             {
23                 arr[row][cols]=rowVals[cols];
24             }
25         }
26         for(row=0; row<n; row++)
27         {
28             for(cols=0; cols<n; cols++)
29             {
30                 transpose[row][cols]=arr[cols][row];
```

String: It is a class.

The screenshot shows an IDE window with a Java file named `Main.java`. The code is as follows:

```
205 // String are Immutable i.e. Fixed or Rigid or something which cannot be changed
206
207
208 class Main
209 {
210     Run | Debug
211     public static void main(String[] args)
212     {
213         String s1="NS";
214         System.out.println(s1);
215         s1 = s1.concat(" students");
216         System.out.println(s1);
217     }
218 }
```

Handwritten annotations in yellow include:

- Underlines under `Immutable`, `Fixed`, and `Rigid` in the comment.
- A box around `s1` on line 213 with an arrow pointing to it from the word `String` in the comment.
- A box around `s1` on line 215 with an arrow pointing to it from the word `s1` on line 213.
- The word `Original` written below the box around `s1` on line 215.

The terminal output shows:

```
NS
NS students
(base) ingledarshan@192 NS 18 Mar 2023 %
```

The status bar at the bottom indicates: `Ln 215, Col 32 Spaces: 4 UTF-8 LF ( ) Java`.

