

FileEditSelectionViewGoRun...<-->TypeScript

EXPLORER

TYPESCRIPT

Assignment

JS Task1.js

TS Task1.ts1

JS Task2.js

TS Task2.ts1

css

script

JS anony.js

TS anony.ts

JS Arr2.js

TS Arr2.ts

JS Arr3.js

TS Arr3.ts

JS Arrays.js

TS Arrays.ts

JS arrow.js

TS arrow.ts

JS constr.js

TS constr.ts

JS default.js

TS default.ts

JS details.js

TS details.ts

JS exp1.js

OUTLINE

TIMELINE

TS Task1.ts1

TS Task2.ts1x

JS Task1.js

TS Arr3.ts

TS generic.ts

TS constr.ts

TS inherit.ts

TS interf.ts

▶▶...

Assignment > TS Task2.ts > ...

1//assigning without the type

2var num1=45;

3console.log(num1);

4num1="Hai";

5console.log(num1);

PROBLEMS4

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

cmd+...^x

45

C:\TypeScript\Assignment>tsc Task2.ts

Task2.ts:4:1 - error TS2322: Type 'string' is not assignable to type 'number'.

4num1="Hai";

Ln 5, Col 19

Spaces: 4

UTF-8

CRLF

TypeScript

Go Live

Prettier

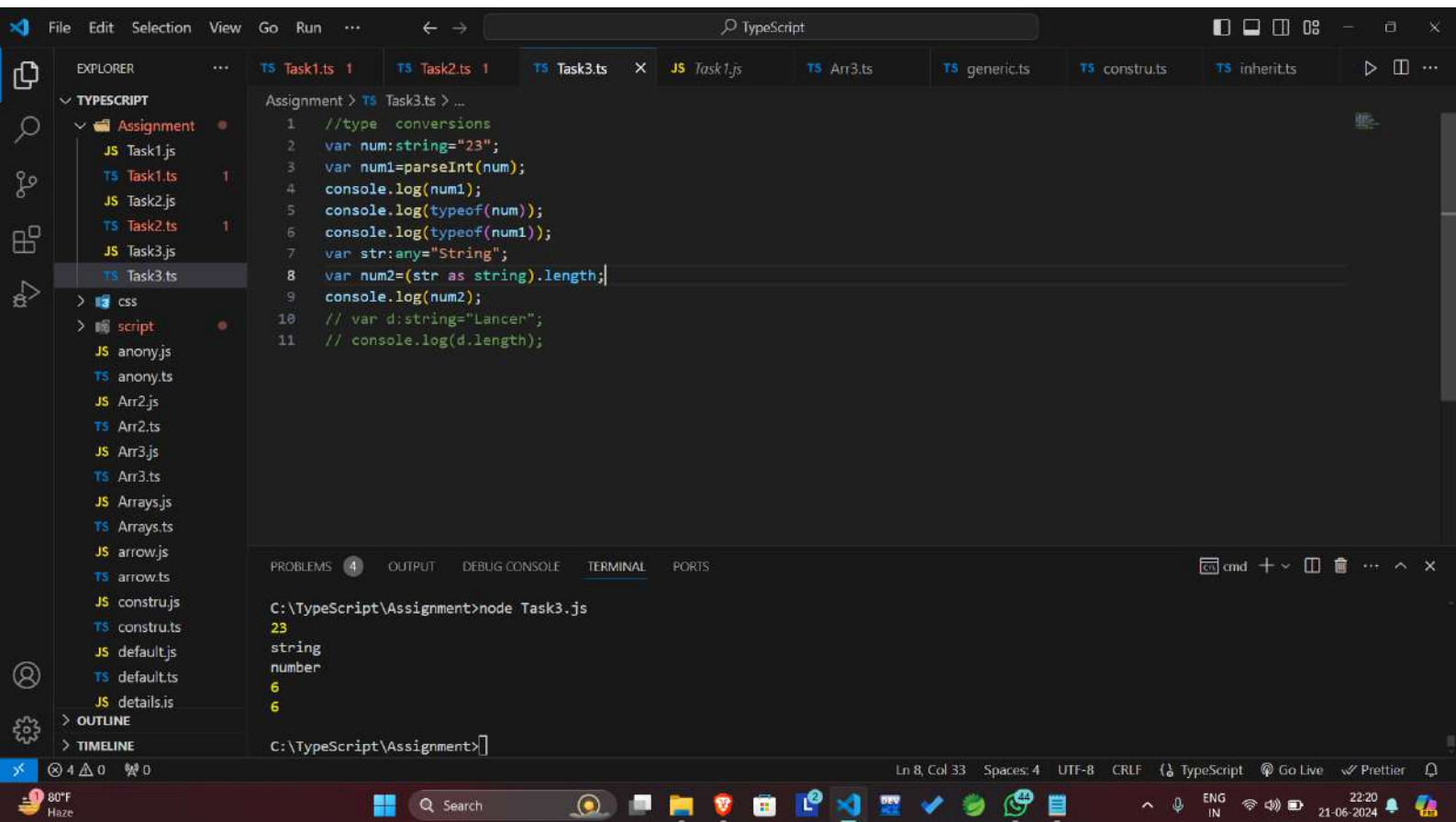
81°F

Mostly cloudy

Search

22:03

21-06-2024



Visual Studio Code interface showing a TypeScript assignment task.

EXPLORER

- Assignment
 - Task1.js
 - Task1.ts
 - Task2.js
 - Task2.ts
 - Task3.js
 - Task3.ts
 - Task4.js
 - Task4.ts
- css
- script
 - anony.js
 - anony.ts
 - Arr2.js
 - Arr2.ts
 - Arr3.js
 - Arr3.ts
 - Arrays.js
 - Arrays.ts
 - arrow.js
 - arrow.ts
 - constru.js
 - constru.ts
 - defaultis

Task4.ts

```
1 // Define a type alias for a complex object representing a user
2 type User = {
3   id: number;
4   name: string;
5   email: string;
6   isActive: boolean;
7 };
8
9 // Define a type alias for a complex object representing a product
10 type Product = {
11   id: number;
12   name: string;
13   price: number;
14   inStock: boolean;
15 };
16
17 // Define a type alias for a custom type representing an order status
18 type OrderStatus = 'pending' | 'shipped' | 'delivered' | 'cancelled';
19
20 // Define a type alias for an order object
```

TERMINAL

```
C:\TypeScript\Assignment>tsc Task4.ts
C:\TypeScript\Assignment>node Task4.js
User: { id: 1, name: 'Alice', email: 'alice@example.com', isActive: true }
Product: { id: 101, name: 'Laptop', price: 999.99, inStock: true }
Order: { orderId: 1001, userId: 1, productIds: [ 101 ], status: 'pending' }
```

Ln 55, Col 1 Spaces: 4 UTF-8 CRLF TypeScript Go Live Prettier

80°F Haze 22:37 21-06-2024

Visual Studio Code interface showing a TypeScript project named "Assignment". The Explorer sidebar on the left lists files: Task1.js, Task1.ts, Task2.js, Task2.ts, Task3.js, Task3.ts, Task4.js, Task4.ts, Task5.js, Task5.ts, and a folder "script" containing anony.js, anony.ts, Arr2.js, Arr2.ts, Arr3.js, Arr3.ts, Arrays.js, Arrays.ts, arrow.js, arrow.ts, and construis.js. The main editor displays the code for Task5.ts:

```
3 arr[7]=90;
4 arr[8]=29;
5 for(var i=0;i<arr.length;i++){
6     console.log("elements are :"+arr[i]);
7 }
8
9 console.log();
10 var arr1:number[]=new Array();
11 // console.log(arr1.length);
12 var num2=21;
13 var j=0;
14 for(var i=0;i<arr.length;i++){
15     if(arr[i]!=num2){
16         arr1[j]=arr[i];
17         j++;
18     }
19 }
```

The bottom panel shows the TERMINAL output:

```
elements are :6
elements are :8
elements are :12
elements are :20
elements are :21
elements are :24
elements are :90
elements are :29

[
  5, 6, 8, 12,
  20, 24, 90, 29
]
```

The status bar at the bottom indicates the current position is Ln 11, Col 29, with 4 spaces, UTF-8 encoding, and CRLF line endings. The system tray shows the temperature is 80°F, the weather is Hazy, and the time is 22:59 on 21-06-2024.

VS Code interface showing a TypeScript assignment. The Explorer sidebar on the left lists files under 'Assignment' and 'script' folders. The main editor displays 'Task6.ts' with the following code:

```
1 //passing boolean and number as parameters
2 function myOut(p1:boolean,p2:number):boolean|number{
3     if(p1){
4         return p2;
5     }
6     else{
7         return p1;
8     }
9 }
10 //calling the function
11 console.log(myOut(true,21));
12 console.log(myOut(false,21));
```

The bottom panel shows the 'TERMINAL' output:

```
[
  5, 6, 8, 12,
  20, 24, 90, 29
]

C:\TypeScript\Assignment>tsc Task6.ts

C:\TypeScript\Assignment>node Task6.js
21
false

C:\TypeScript\Assignment>
```

The status bar at the bottom indicates 'Ln 8, Col 6', 'Spaces: 4', 'UTF-8', 'CRLF', 'TypeScript', 'Go Live', and 'Prettier'.

Visual Studio Code interface showing a TypeScript assignment task.

EXPLORER

- Assignment
 - Task1.js
 - Task1.ts
 - Task2.js
 - Task2.ts
 - Task3.js
 - Task3.ts
 - Task4.js
 - Task4.ts
 - Task5.js
 - Task5.ts
 - Task6.js
 - Task6.ts
 - Task7.js
 - Task7.ts
- css
- script
 - anony.js
 - anony.ts
 - Arr2.js
 - Arr2.ts
 - Arr3.js
 - Arr3.ts
 - Arravs.is
- OUTLINE
- TIMELINE

Task7.ts

```
1 //assigning different values to the variable
2 var n:string|number|boolean;
3 n="Hello";
4 console.log(n);
5 n=42;
6 console.log(n);
7 n=true;
8 console.log(ln);
9
10 function typecheck(i:string|boolean|number){
11     return typeof(i);
12 }
13 //calling the function
14 console.log(typecheck("NAVEEN"));
15 console.log(typecheck(true));
16 console.log(typecheck(21));
17
```

PROBLEMS (4) OUTPUT DEBUG CONSOLE TERMINAL PORTS

Terminal Output:

```
C:\TypeScript\Assignment>tsc Task7.ts
C:\TypeScript\Assignment>node Task7.js
Hello
42
false
string
boolean
number
```

Ln 16, Col 28 Spaces: 4 UTF-8 CRLF TypeScript Go Live Prettier

Breaking news Supreme Court...

23:40 21-06-2024

VS Code interface showing a TypeScript project named "Assignment". The Explorer sidebar displays the file structure, including "Task1.ts" through "Task8.ts". The main editor displays the code for "Task8.ts":

```
1 //enums
2 enum Color{
3     Red,
4     green,
5     white,
6     blue,
7     black
8 }
9
10 var selectedColor:Color=Color.black;
11 //index
12 console.log(selectedColor);
13 //value
14 console.log(Color[selectedColor]);
```

The bottom panel shows the PROBLEMS, OUTPUT, DEBUG CONSOLE, and TERMINAL tabs. The TERMINAL tab is active, displaying the command prompt output:

```
C:\TypeScript\Assignment>tsc Task8.ts
C:\TypeScript\Assignment>node Task8.js
false
string
boolean
number
```

The status bar at the bottom indicates the current file is "Task8.ts" at line 14, column 35, with 4 spaces, UTF-8 encoding, and CRLF line endings. The system tray shows the date and time as 21-06-2024, 23:49.

Visual Studio Code interface showing a TypeScript project named "Assignment".

EXPLORER:

- Assignment
 - JS Task1.js
 - TS Task1.ts (1 error)
 - JS Task2.js
 - TS Task2.ts
- css
- script
 - JS anony.js
 - TS anony.ts
 - JS Arr2.js
 - TS Arr2.ts
 - JS Arr3.js
 - TS Arr3.ts
 - JS Arrays.js
 - TS Arrays.ts
 - JS arrow.js
 - TS arrow.ts
 - JS constr.js
 - TS constr.ts
 - JS default.js
 - TS default.ts
 - JS details.js
 - TS details.ts
 - JS exp1.js
- OUTLINE
- TIMELINE

Task1.ts:

```
1 //type checking
2 var num1:number;
3 num1="Naveen";
```

TERMINAL:

```
C:\TypeScript>cd Assignment

C:\TypeScript\Assignment>tsc Task1.ts
Task1.ts:3:1 - error TS2322: Type 'string' is not assignable to type 'number'.

3  num1="Naveen";
   ~~~~~
```

STATUS BAR: Ln 3, Col 15 | Spaces: 4 | UTF-8 | CRLF | TypeScript | Go Live | Prettier

SYSTEM TRAY: 81°F Mostly cloudy | Search | 22:00 21-06-2024