

Github URL

W01-P1: Setup Github

=> Github demo URL

A screenshot of a GitHub repository page. The URL in the address bar is `github.com/vic0627/1142-demo-victorhsu-43/tree/master/demo/md/w01-typescript-43`. The repository name `vic0627 / 1142-demo-victorhsu-43` is highlighted with a red box. The main content area shows the directory structure `1142-demo-victorhsu-43 / demo / md / w01-typescript-43 /`, which is also highlighted with a blue box. The left sidebar shows the file `w01.md` and the ignore file `.gitignore`.

=> share to the teacher and TA

A screenshot of the GitHub repository settings page for the same repository. The URL in the address bar is `github.com/vic0627/1142-demo-victorhsu-43/settings/access?guidance_task=`. The sidebar on the left has a section titled "Collaborators and teams" with a sub-section "Collaborators" highlighted with a red box. The main content area shows the "Manage access" section where a user named "sian-0018" is listed with a status "Awaiting sian-0018's response". A red box highlights this user entry.

97bcfe2 victor_xu

Sat Feb 28 11:48:44 2026 +0800 W01-P1: Setup Github

W01-P2: TypeScript tutorials (1)

=> Type Annotation and Union Type

The screenshot shows a development setup with a code editor and a browser. In the code editor, a file named `t1.ts` is open, containing the following TypeScript code:

```
1 console.log("t1.ts is running");
2
3 // #region Type Annotations
4 let awesomeName: string = "shakeAndBake";
5 awesomeName = "something";
6 awesomeName = awesomeName.toUpperCase();
7 // awesomeName = 28;
8
9 let amount: number = 12;
10 amount = 12 - 1;
11 // amount = 'pants';
12
13 let isAwesome: boolean = true;
14 isAwesome = false;
15 // isAwesome = 'shakeAndBake';
16
17 console.log(awesomeName, amount, isAwesome);
18 // #endregion
19
20 // #region Union Type
21 let tax: number | string = 10;
22 tax = 100;
23 tax = '$10';
24 // fancy name - literal value type
25 let requestStatus: 'pending' | 'success' | 'error' =
26 requestStatus = 'success';
27 requestStatus = 'error';
28 requestStatus = 'random';
29 console.log(tax, requestStatus);
30 // #endregion
```

The browser window at the top right shows the output of the code execution. The terminal at the bottom shows the application is ready:

```
node - w01-typescript-43 + v
es for Your Application. Your Application must not access the HealthKit APIs u
VITE v7.3.1 ready in 131 ms
+ Local: http://localhost:5173/
+ Network: use --host to expose
+ press h + enter to show help
```

4d4d589 victor_xu

Sat Feb 28 11:48:44 2026 +0800 W01-P2: TypeScript tutorials (1)

W01-P3: TypeScript tutorials (2)

=> Object Fundamental, npm run build error when typechecking failed

The screenshot shows a development environment with two main panes. The left pane is a code editor for a file named `t1.ts`. The code contains several declarations and assignments. A specific assignment at line 41 causes a TypeScript error: `items[0].title = 'new book';` is highlighted with a red box, and a tooltip indicates "Error: Cannot assign to 'title' because it is a read-only property." The right pane is a browser window displaying the Vite + TypeScript landing page, which includes the Vite logo and a large "TS" logo.

Code from `t1.ts`:

```
19 // #region Union Type
20 let tax: number | string = 10;
21 tax = 100;
22 tax = '$10';
23 // fancy name - literal value type
24 let requestStatus: 'pending' | 'success' | 'error' = 'pending';
25 requestStatus = 'success';
26 requestStatus = 'error';
27 requestStatus = 'random';
28 console.log(tax, requestStatus);
29 // #endregion
30
31 let car: { brand: string; year: number } = { brand: 'toyota',
32 car.brand = 'ford';
33 // car.color = 'blue';
34 let car1: { brand: string; year: number } = { brand: 'audi', y
35 // let car2: { brand: string; year: number } = { brand: 'audi'
36 let book = { title: 'book', cost: 20 };
37 let pen = { title: 'pen', cost: 5 };
38 let notebook = { title: 'notebook' };
39
40 let items: { readonly title: string; cost?: number }[] = [book
41 items[0].title = 'new book'; // Error: Cannot assign to 'title'
42
43 console.log(items);
44
```

Terminal output:

```
w01-typescript-43 git:(master) ✘ npm run build
src/tutorials/t1.ts:41:18 - error TS2540: Cannot assign to 'title' because it is a read-only property.

41 items[0].title = 'new book'; // Error: Cannot assign to 'title' because it is a read-only property.
~~~~~
```

No Issues | 2 hidden

```
t1.ts is running
SOMETHING 11 false
$10 random
    ↴ 0: {title: 'new book', cost: 20}
    ↴ 1: {title: 'pen', cost: 5}
    ↴ 2: {title: 'notebook'}
    ↴ length: 3
    ↴ [[Prototype]: Array(0)]
```

cmd ⌘ to turn on code suggestions. Don't show again

664b178 victor_xu

Sat Feb 28 12:06:25 2026 +0800 W01-P3: TypeScript tutorials (2)

W01-P4: TypeScript tutorials (3)

=> Function Fundamentals

The screenshot shows the VS Code interface with several files open:

- `t1.ts`: Contains a function `calculateDiscount` and a function `sum`.
- `t2.ts`: Contains a function `createEmployee` and a function `createStudent`.
- `main.ts`: Contains a call to `createEmployee` and `createStudent`, and a log statement.

The browser window shows the output of the code execution:

```
Vite + TypeScript
Hello there JOHN!!!
200
> (5) [2, 4, 6, 8, 10]
The total is: 30
> (id: 1, isActive: false)
> (id: 2, isActive: true)

Welcome to the course AWAIT!!
```

74c4b84 victor_xu

Sat Feb 28 12:14:45 2026 +0800 W01-P4: TypeScript tutorials (3)

W01-logs: git logs of W01

The screenshot shows the GitHub repository `vic0627/1142-demo-victorhsu-43`. The `Commits` page displays the following commits:

- `W01-P4: TypeScript tutorials (3)` by `vic0627` committed 3 minutes ago (commit `74c4b84`)
- `W01-P3: TypeScript tutorials (2)` by `vic0627` committed 12 minutes ago (commit `664b178`)
- `W01-P2: TypeScript tutorials (1)` by `vic0627` committed 17 minutes ago (commit `4d4d589`)
- `W01-P1: Setup Github` by `vic0627` committed 17 minutes ago (commit `97bcfe2`)