

TypeScript String Literal Types

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Summary: in this tutorial, you will learn about the TypeScript string literal types that define a type that accepts a specified string literal.

The string literal types allow you to define a type that accepts only one specified string literal.

The following defines a string literal type that accepts a literal string `'click'` :

```
let click: 'click';
```

The `click` is a string literal type that accepts only the string-literal `'click'` . If you assign the literal string `'click'` to the `click` , it will be valid:

```
click = 'click'; // valid
```

However, when you assign another string literal to the `click` , the TypeScript compiler will issue an error. For example:

```
click = 'dblclick'; // compiler error
```

Error:

```
Type '"dblclick"' is not assignable to type '"click"'.
```

The string literal type is useful to limit a possible string value that a variable can store.

The string literal types can combine nicely with the [union types](#) to define a finite set of string literal values for a variable:

```
let mouseEvent: 'click' | 'dblclick' | 'mouseup' | 'mousedown';  
mouseEvent = 'click'; // valid  
mouseEvent = 'dblclick'; // valid  
mouseEvent = 'mouseup'; // valid  
mouseEvent = 'mousedown'; // valid  
mouseEvent = 'mouseover'; // compiler error
```

If you use the string literal types in multiple places, they will be verbose.

To avoid this, you can use the type aliases. For example:

```
type MyMouseEvent = 'click' | 'dblclick' | 'mouseup' | 'mousedown';  
let mouseEvent: MyMouseEvent;  
mouseEvent = 'click'; // valid  
mouseEvent = 'dblclick'; // valid  
mouseEvent = 'mouseup'; // valid  
mouseEvent = 'mousedown'; // valid  
mouseEvent = 'mouseover'; // compiler error  
  
let anotherEvent: MyMouseEvent;
```



Summary

- A TypeScript string literal type defines a type that accepts specified string literal.
- Use the string literal types with union types and type aliases to define types that accept a finite set of string literals.