

Merging and Adding Functionality to Enum

In this lesson, you will see two advanced features: merging and adding functions to enum.

WE'LL COVER THE FOLLOWING ^

- Merging values
- Adding functions

Merging values

Like interfaces, an `enum` can be defined in more than one place. You can start defining the `enum` and later define it again. In the end, all values merge into a single `enum`. There is one constraint with multiple definitions of a single `enum`: the first value of every `enum` must have an explicit value. If an explicit value is defined twice, only the last value will be associated with the `enum` when using the reverse value to find an `enum`. Listing the same value twice is not a feature of multiple definitions; a single enumeration definition can have several entries with the same values as well.

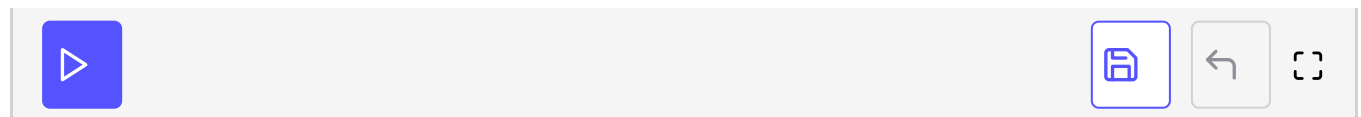
```
enum EnumA {  
    ChoiceA,  
}  
enum EnumA {  
    ChoiceB = 1,  
}  
  
let variable1: EnumA = EnumA.ChoiceA;  
console.log(variable1);  
variable1 = EnumA.ChoiceB;  
console.log(variable1);
```



Adding functions

Another feature of `enum` is that you can attach functions that will be accessible statically by the `enum`. Using an `enum` with a function means that you can use `Orientation.East` as well as `Orientation.yourFunction`. Defining a function inside an `enum` requires the use of a namespace with an exported function.

```
enum Orientation {  
  East,  
  West,  
  North,  
  South,  
}  
namespace Orientation {  
  export function yourFunction() {  
    console.log("I am in a Enum");  
  }  
}  
Orientation.yourFunction();
```



The generated JavaScript hooks the function to the enum's function.

```
(function (variableEnumFunctions) {  
  let Orientation;  
  (function (Orientation) {  
    Orientation[Orientation["East"] = 0] = "East";  
    Orientation[Orientation["West"] = 1] = "West";  
    Orientation[Orientation["North"] = 2] = "North";  
    Orientation[Orientation["South"] = 3] = "South";  
  })(Orientation || (Orientation = {}));  
  (function (Orientation) {  
    function yourFunction() {  
      console.log("I am in an Enum");  
    }  
    Orientation.yourFunction = yourFunction;  
  })(Orientation || (Orientation = {}));  
  Orientation.yourFunction();  
})(variableEnumFunctions || (variableEnumFunctions = {}));
```

As you can see, the final product is that an `enum` is a function that wraps other functions. Hence, it is possible to add functions to an `enum`.