

REST PARAMETERS

Rest parameters (denoted by `...argumentName` for the last argument) allow you to quickly accept multiple arguments in your function and get them as an array. This is demonstrated in the below example.

```
function iTakeItAll(first, second, ...allOthers) {
  console.log(allOthers);
}
iTakeItAll('foo', 'bar'); // []
iTakeItAll('foo', 'bar', 'bas', 'qux'); // ['bas', 'qux']
```

Rest parameters can be used in any function be it `function/()=>/class member`

Required, optional, and default parameters all have one thing in common: they talk about one parameter at a time. Sometimes, you want to work with multiple parameters as a group, or you may not know how many parameters a function will ultimately take. In JavaScript, you can work with the arguments directly using the `arguments` variable that is visible inside every function body.

In TypeScript, you can gather these arguments together into a variable:

```
function buildName(firstName: string, ...restOfName: string[]) {
  return firstName + " " + restOfName.join(" ");
}
```

```
let employeeName = buildName("Joseph", "Samuel", "Lucas", "MacKinzie");
```

Rest parameters are treated as a boundless number of optional parameters. When passing arguments for a rest parameter, you can use as many as you want; you can even pass none. The compiler will build an array of the arguments passed in with the name given after the ellipsis (`...`), allowing you to use it in your function.

The ellipsis is also used in the type of the function with rest parameters:

```
function buildName(firstName: string, ...restOfName: string[]) {
  return firstName + " " + restOfName.join(" ");
}
```

```
let buildNameFun: (fname: string, ...rest: string[]) => string = buildName;
```