

# Lesson + Exercises

Getting functions to work together is function composition, and how FPer's prefer to structure their programs. (3 min. read, then exercise)

## Function Composition

Compose means [to create by combining things](#).

A Toyota's [roughly 30,000 parts](#). Composing those useless parts gives you a useful method of transportation.

Same thing with software. Our functions are useless until we compose them with other functions.

## Uppercase and Reverse

Here's our user, `bobo`.

```
const bobo = {
  firstName: 'Bobo',
  lastName: 'Flakes'
};
```

Let's uppercase and reverse `bobo`'s first name. What functions must you create and compose?

Your end result should be a function `upperAndReverseFirstName` that takes `bobo` and returns the correct output.

```
const bobo = {
  firstName: 'Bobo',
  lastName: 'Flakes'
};

const result = upperAndReverseFirstName(bobo);

console.log({ result });
```



```
const upperAndReverseFirstName = (user) => {  
  // your code here  
};
```

## Upper and Reverse for All!

After that, how can you make `upperAndReverseFirstName` work for Bobo and his friends?

```
const users = [{  
  firstName: 'Bobo',  
  lastName: 'Flakes'  
}, {  
  firstName: 'Lawrence',  
  lastName: 'Shilling'  
}, {  
  firstName: 'Anon',  
  lastName: 'User'  
}];  
  
// ['OBOB', 'ECNERWAL', 'NONA']
```

```
// paste your previous solution here  
  
const upperAndReverseFirstNames = (users) => {  
  // new code here  
}
```