

Exercise in Strictness

The code below compiles with the `strict` flag set to `false`. Adjust it so that it compiles when `strict` is set to `true` as well.

After you have resolved all compiler errors, can you spot some other issues with the code? Can it still throw runtime errors?

*Note that the system can only verify that your code compiles without errors. To check your solution, click on **Show solution** and compare the code.*

```
interface Address {
    street: string;
    city?: string;
}

interface User {
    name: string;
    address: Address;
    meta: Record<string, string>;
}

interface SuperUser extends User {
    permissions: string[];
}

class UserRepository {
    private users: User[];

    init() {
        this.users = [
            // Do not change the data. Let's assume it comes from the backend.
            {
                name: "John",
                address: undefined,
                meta: { created: "2019/01/03" }
            },
            {
                name: "Anne",
                address: { street: "Warsaw" },
                meta: {
                    created: "2019/01/05",
                    modified: "2019/04/02"
                }
            }
        ]
    }
};
```

```
}

getUser(id) {
  return this.users[id];
}

getCities() {
  return this.users
    .filter(user => user.address.city)
    .map(user => user.address.city);
}

forEachUser(action: (user: User) => void) {
  this.users.forEach(user => action(user));
}
}

const userRepository = new UserRepository();

console.log(userRepository.getUser(1).address.city.toLowerCase());

console.log(
  userRepository
    .getCities()
    .map(city => city.toUpperCase())
    .join(", ")
);

console.log(new Date(userRepository.getUser(0).meta.modified).getFullYear());
```

