

Interfaces



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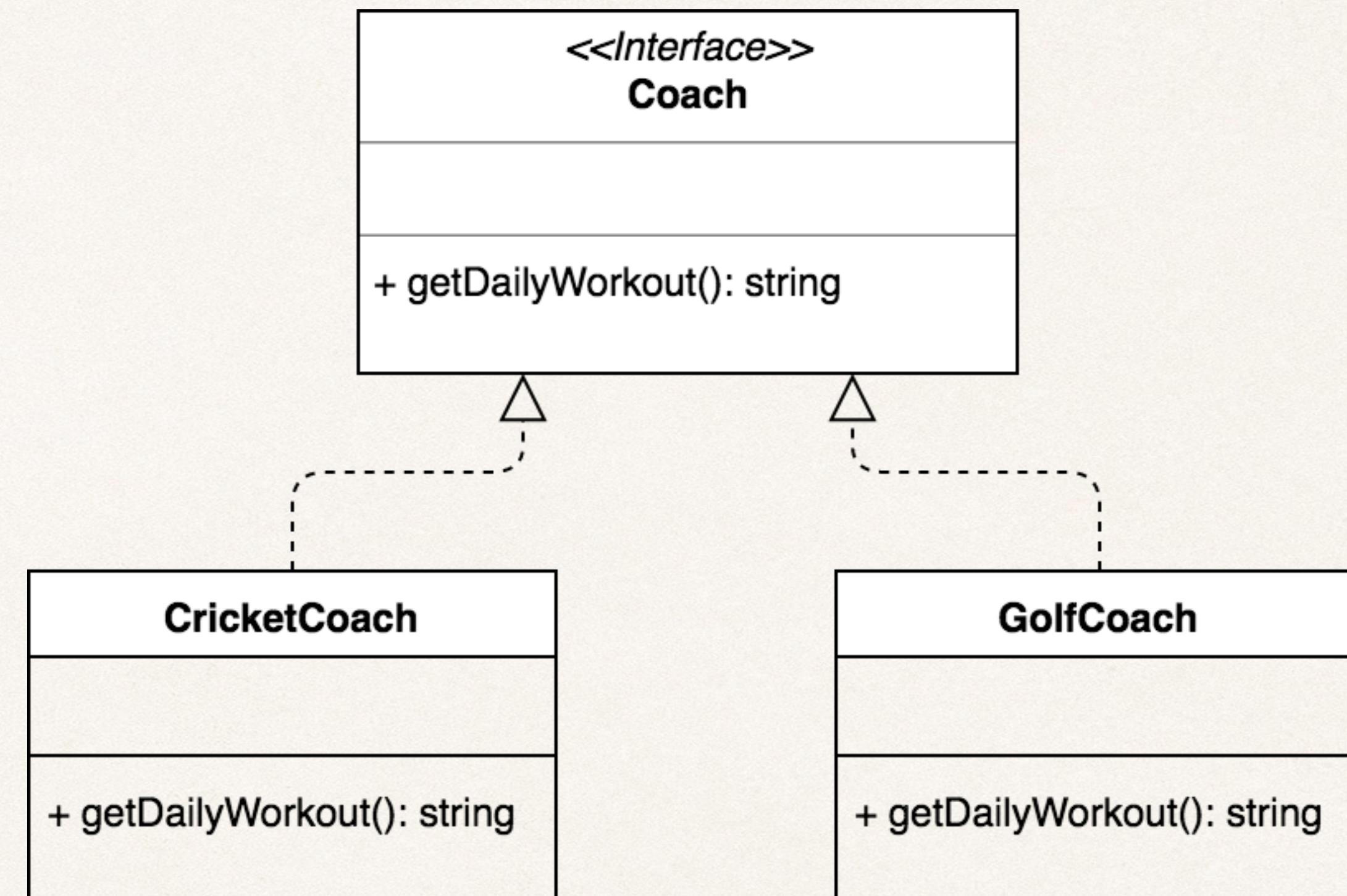
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 - Define an interface with a method contract
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Interfaces

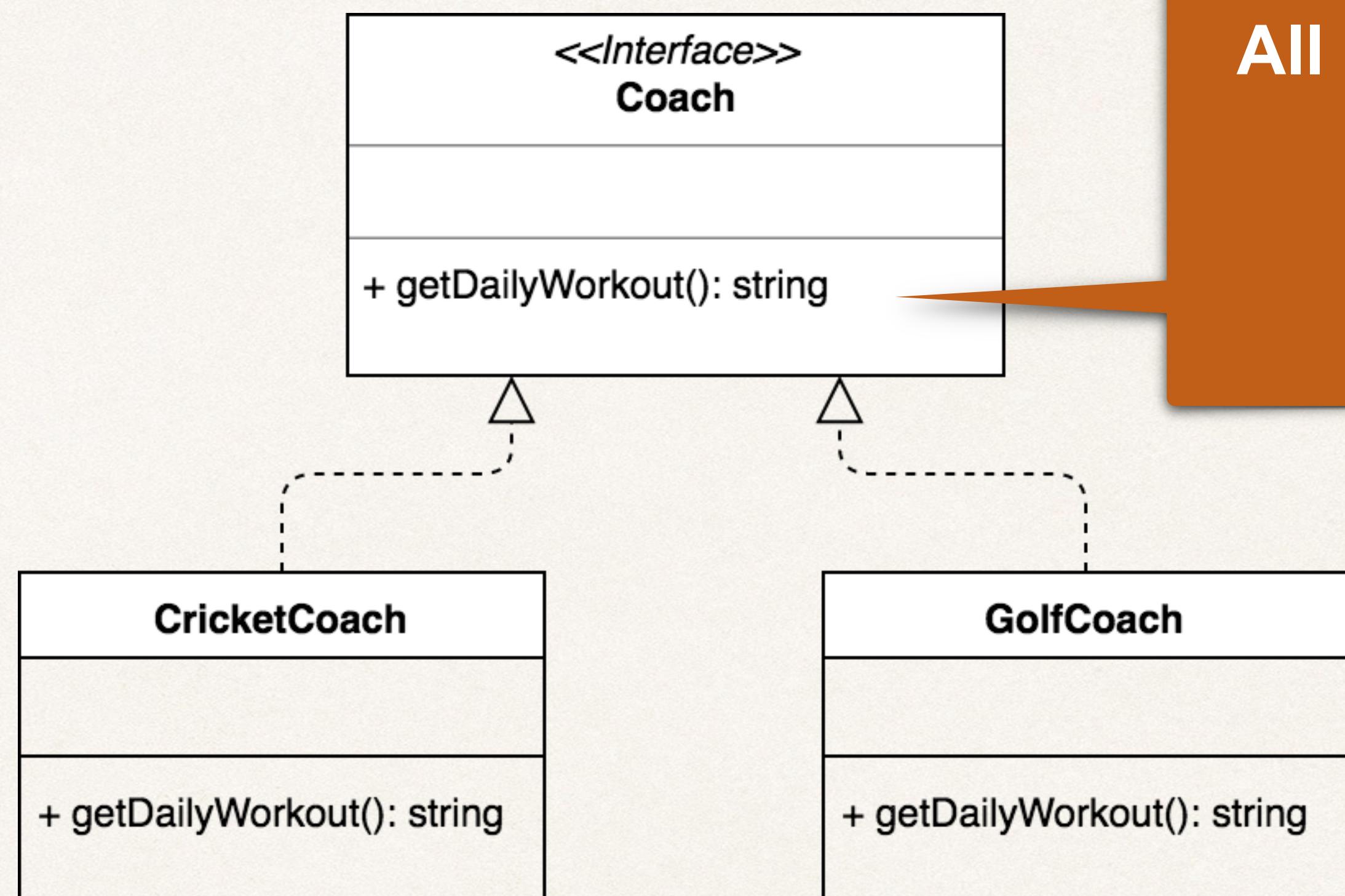
- TypeScript supports interfaces
 - Define an interface with a method contract
 - Classes implement the interface accordingly
 - A class can implement multiple interfaces
- TypeScript can also use interfaces to support contracts with properties
 - For examples with properties, see:
 - <http://www.typescriptlang.org/docs/handbook/interfaces.html>

Interface Example

Interface Example

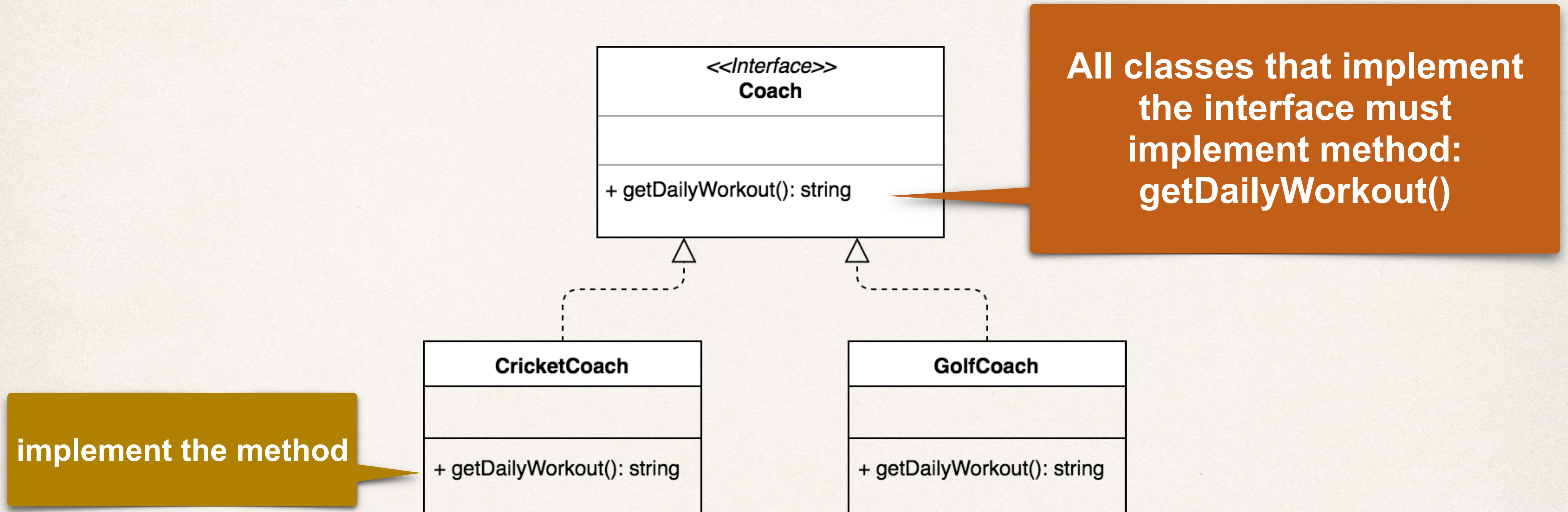


Interface Example

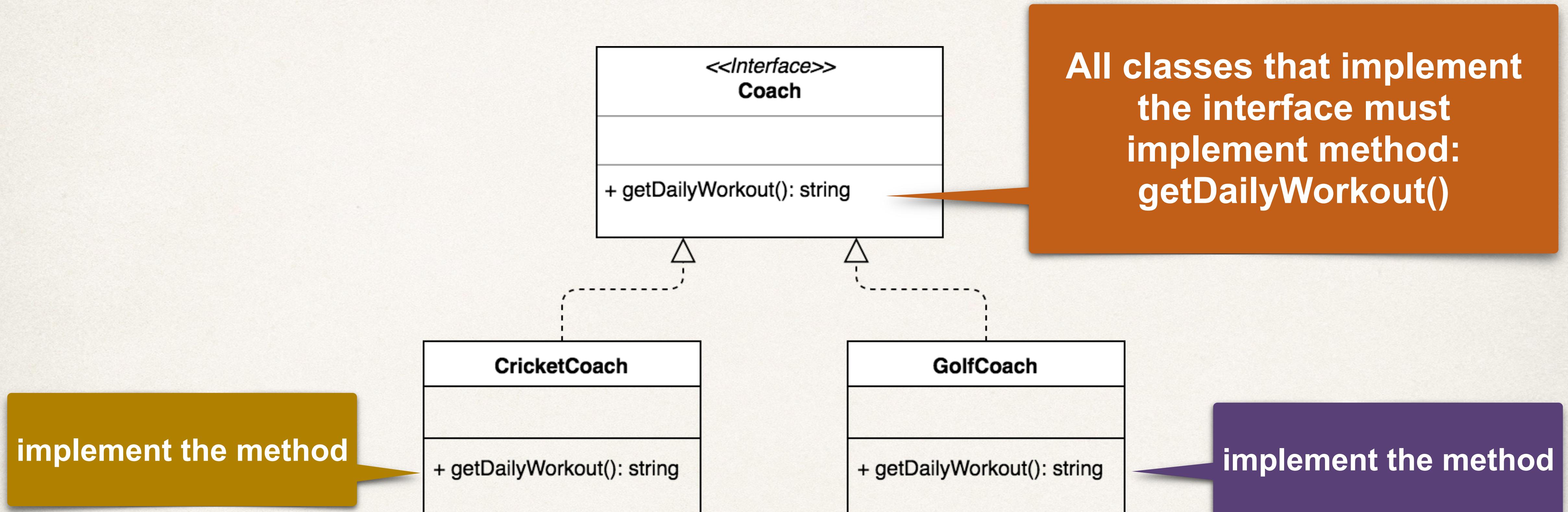


All classes that implement the interface must implement method: **getDailyWorkout()**

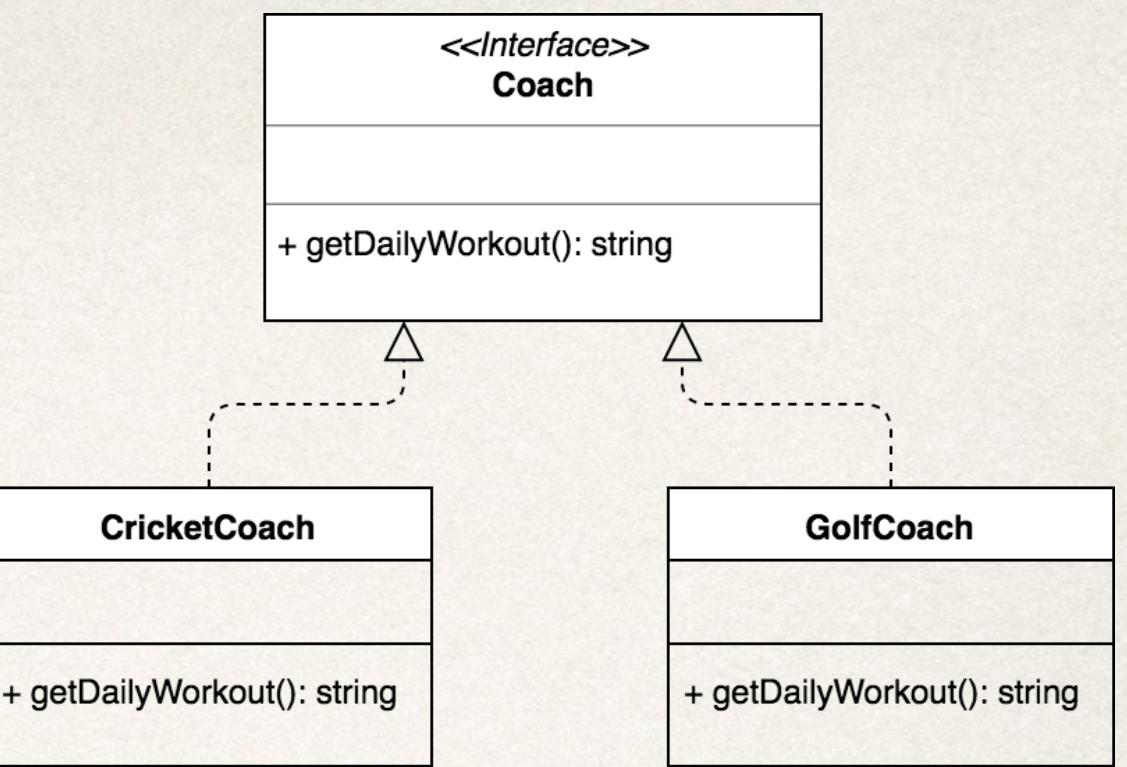
Interface Example



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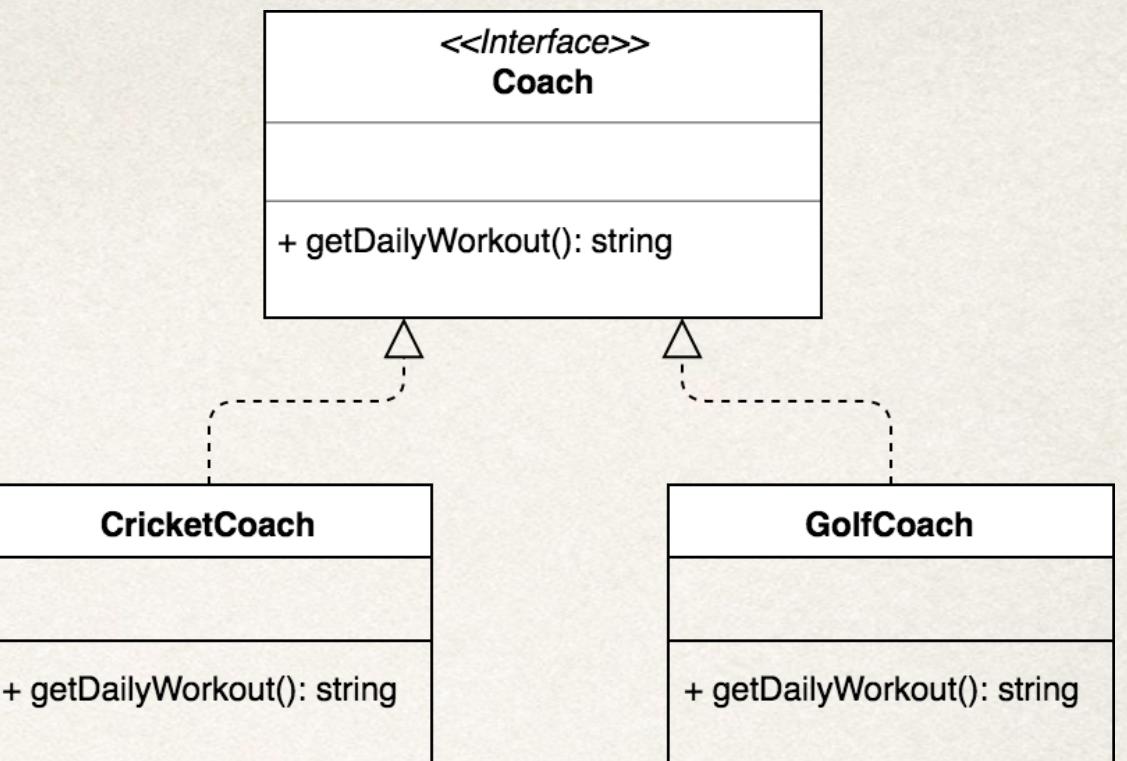


Interface Example

Define
the interface

File: Coach.ts

```
export interface Coach {
```

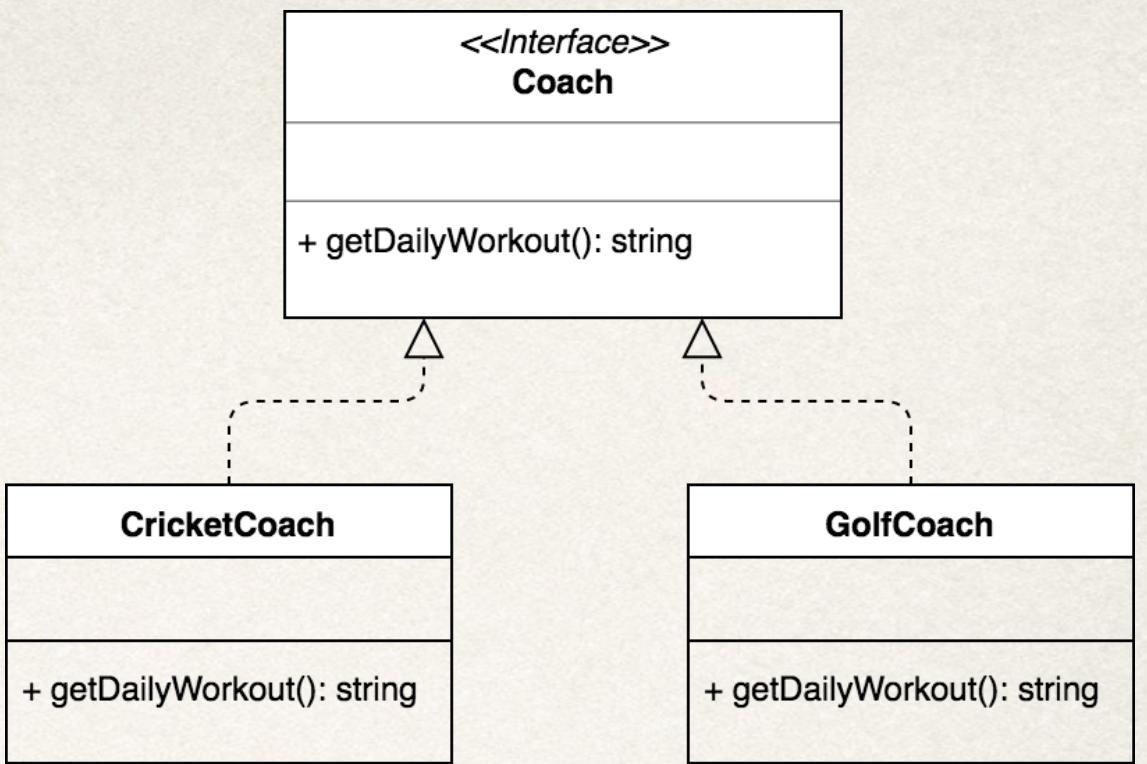


Interface Example

Define
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File: Coach.ts

```
export interface Coach {  
  
    getDailyWorkout(): string;  
}
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Interface Example

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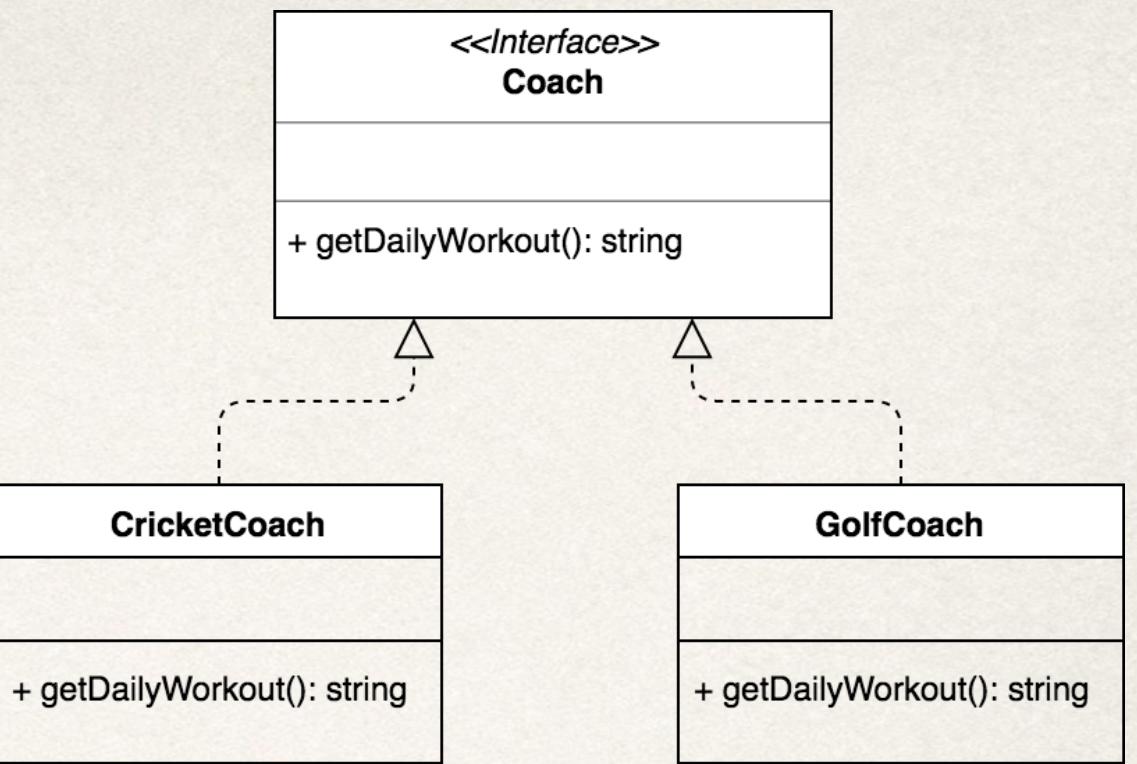
Implement
the interface

File: Coach.ts

```
export interface Coach {  
  
    getDailyWorkout(): string;  
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File: CricketCoach.ts

```
import { Coach } from "./Coach";  
  
export class CricketCoach implements Coach {
```



Interface Example

Define
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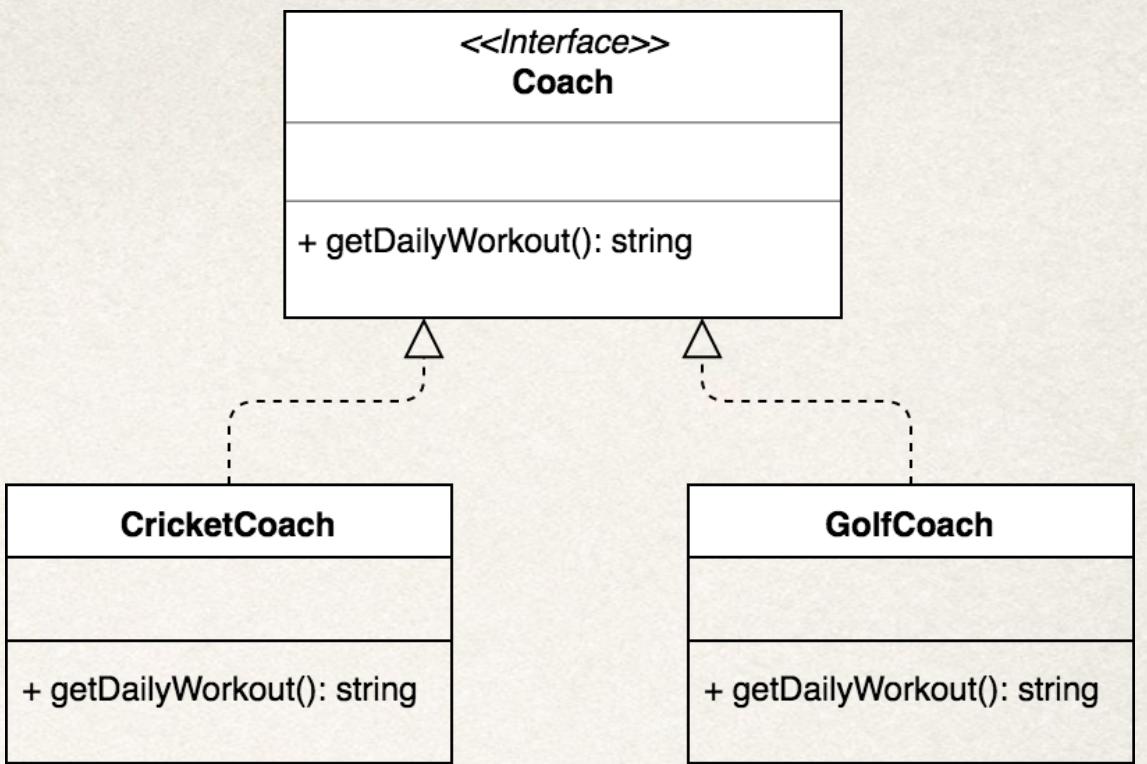
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File: CricketCoach.ts

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import { Coach } from "./Coach";  
  
export class CricketCoach implements Coach {  
  
    getDailyWorkout(): string {  
        return "Practice your spin bowling technique.";  
    }  
}
```



Interface Example

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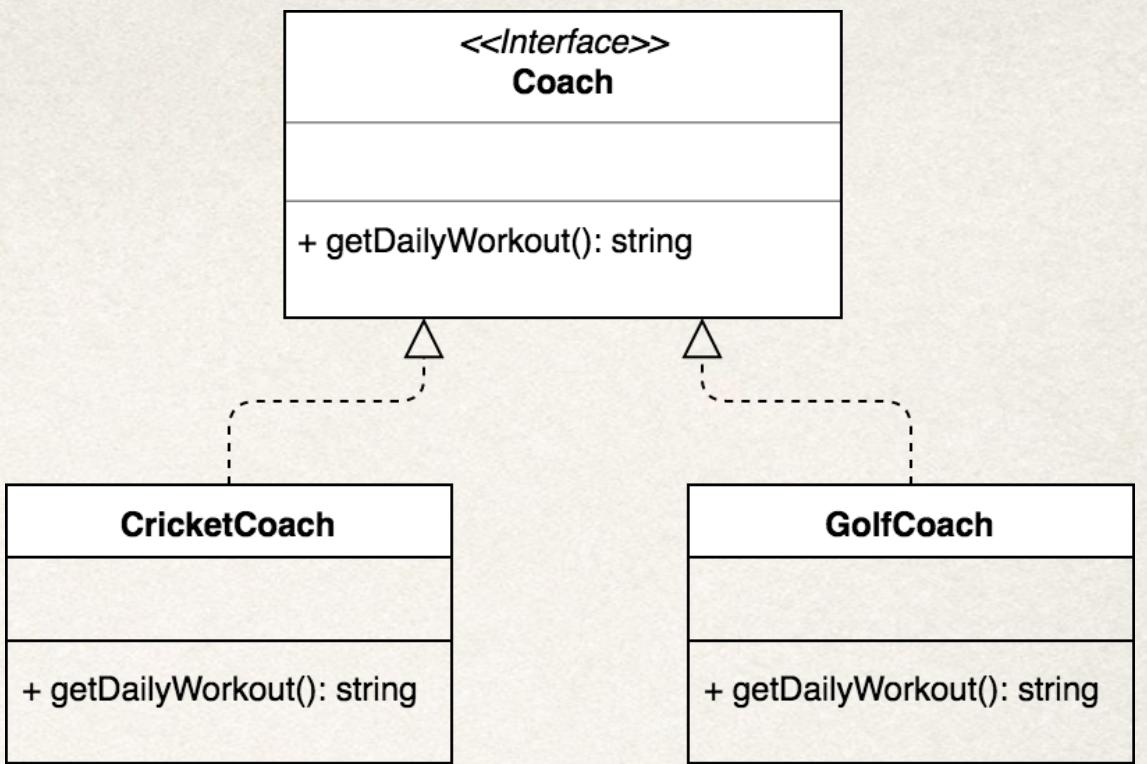
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import { Coach } from "./Coach";  
  
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    }  
}
```

File: GolfCoach.ts

```
import { Coach } from "./Coach";  
  
export class GolfCoach implements Coach {
```

Implement
the interface



Interface Example

Define
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export interface Coach {  
  
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Implement
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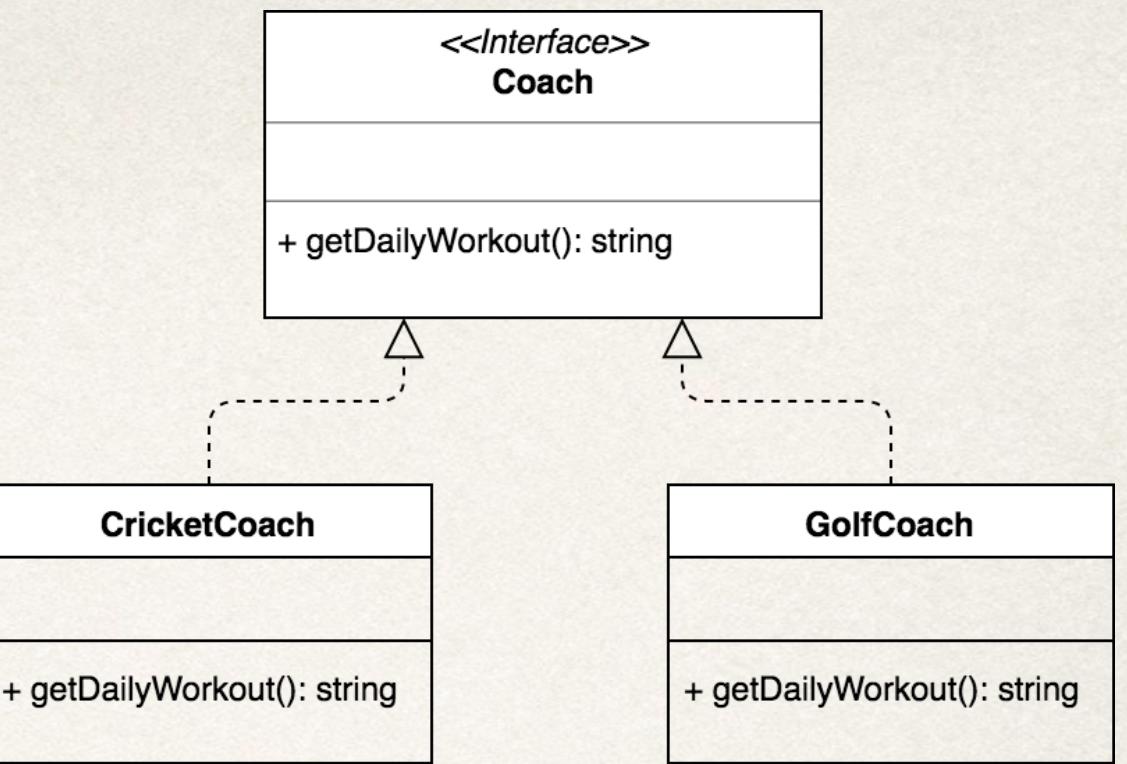
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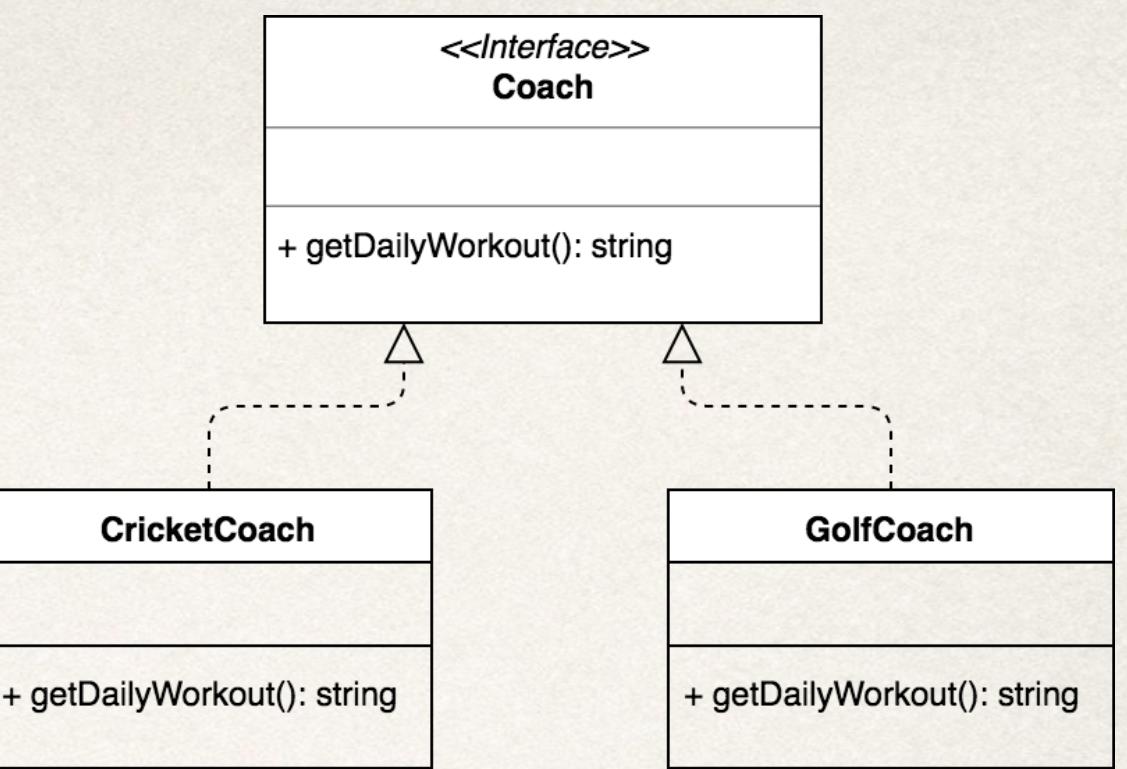
File: GolfCoach.ts

```
import { Coach } from "./Coach";  
  
export class GolfCoach implements Coach {  
  
    getDailyWorkout(): string {  
        return "Hit 100 balls at the golf range.";  
    }  
}
```

Implement
the interface



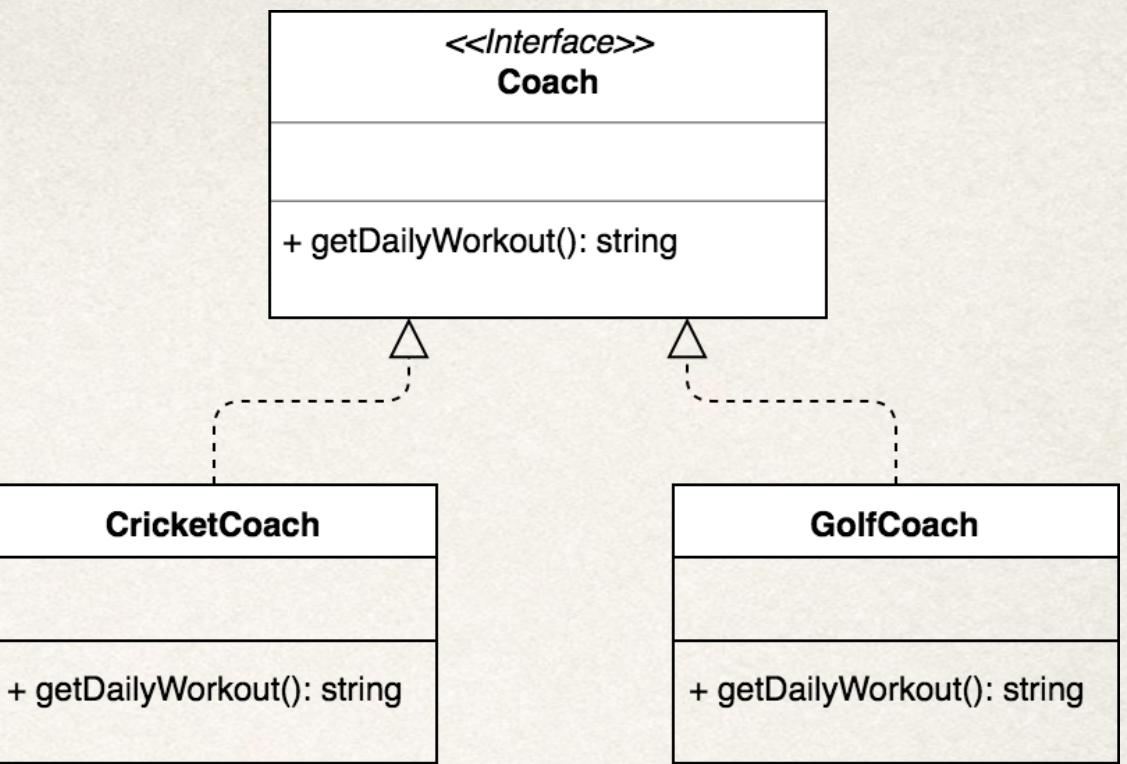
Creating a Main App



Creating a Main App

File: Driver.ts

```
import { Coach } from "./Coach";
import { CricketCoach } from "./CricketCoach";
import { GolfCoach } from "./GolfCoach";
```

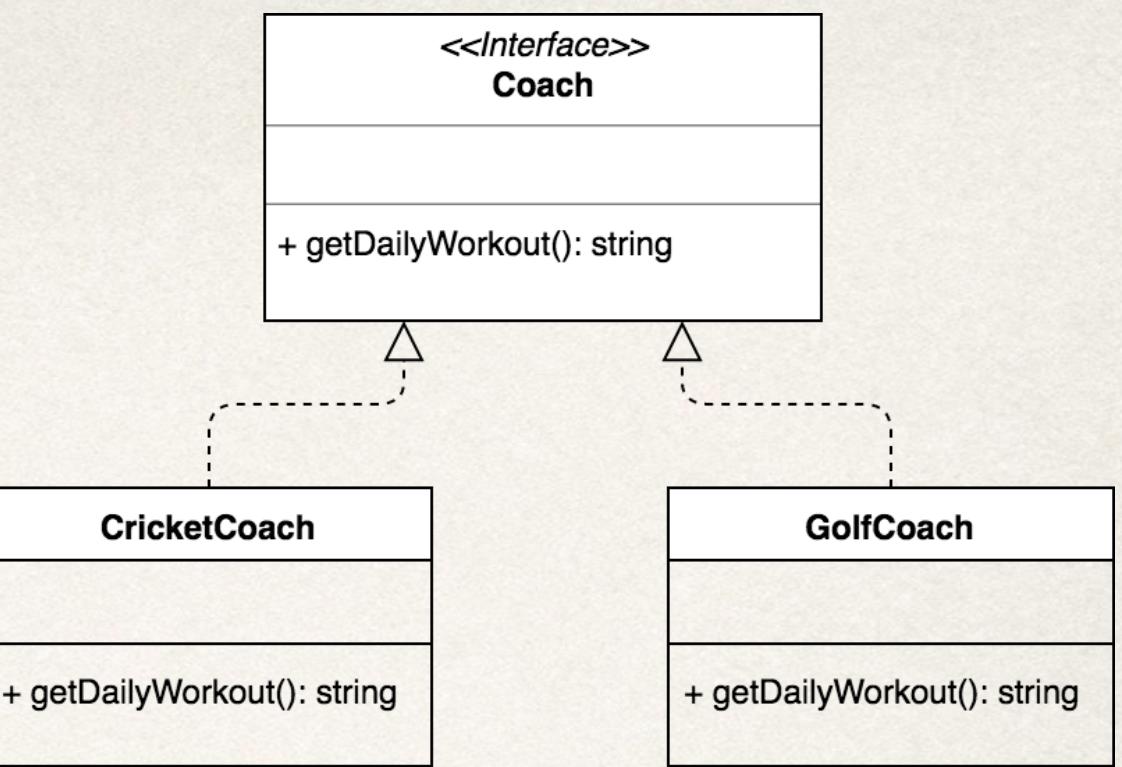


Creating a Main App

File: Driver.ts

```
import { Coach } from "./Coach";
import { CricketCoach } from "./CricketCoach";
import { GolfCoach } from "./GolfCoach";

let myCricketCoach = new CricketCoach();
console.log(myCricketCoach.getDailyWorkout());
```



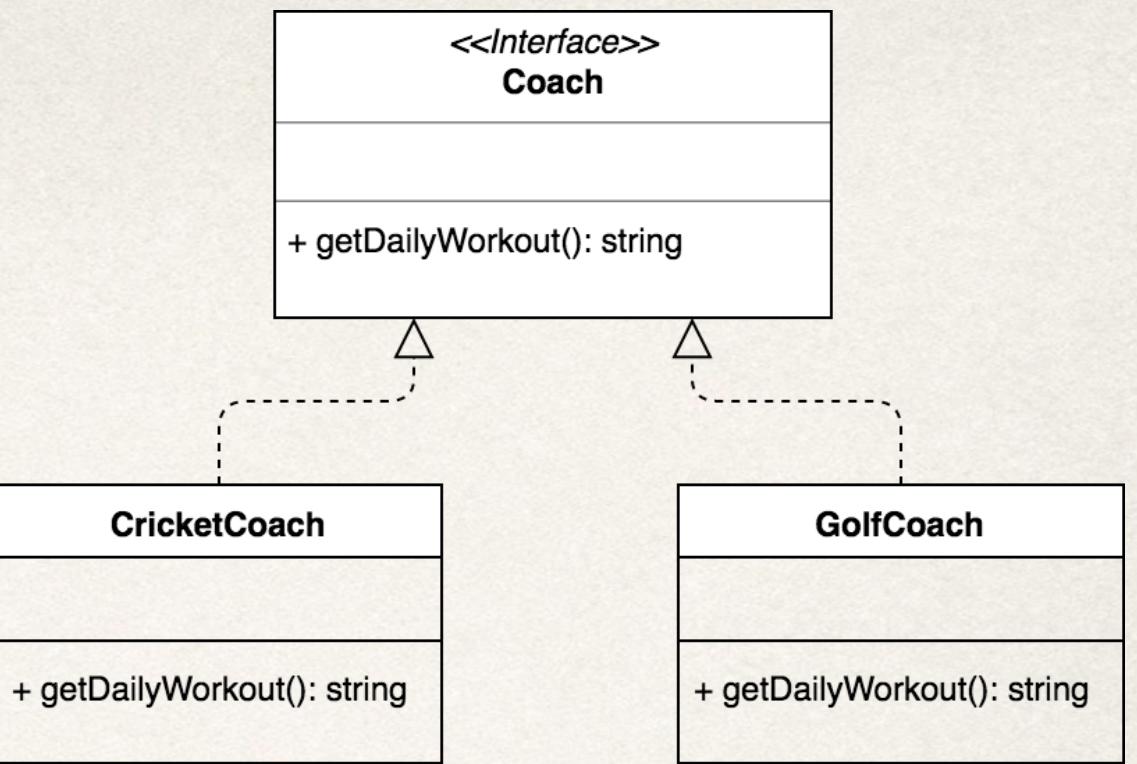
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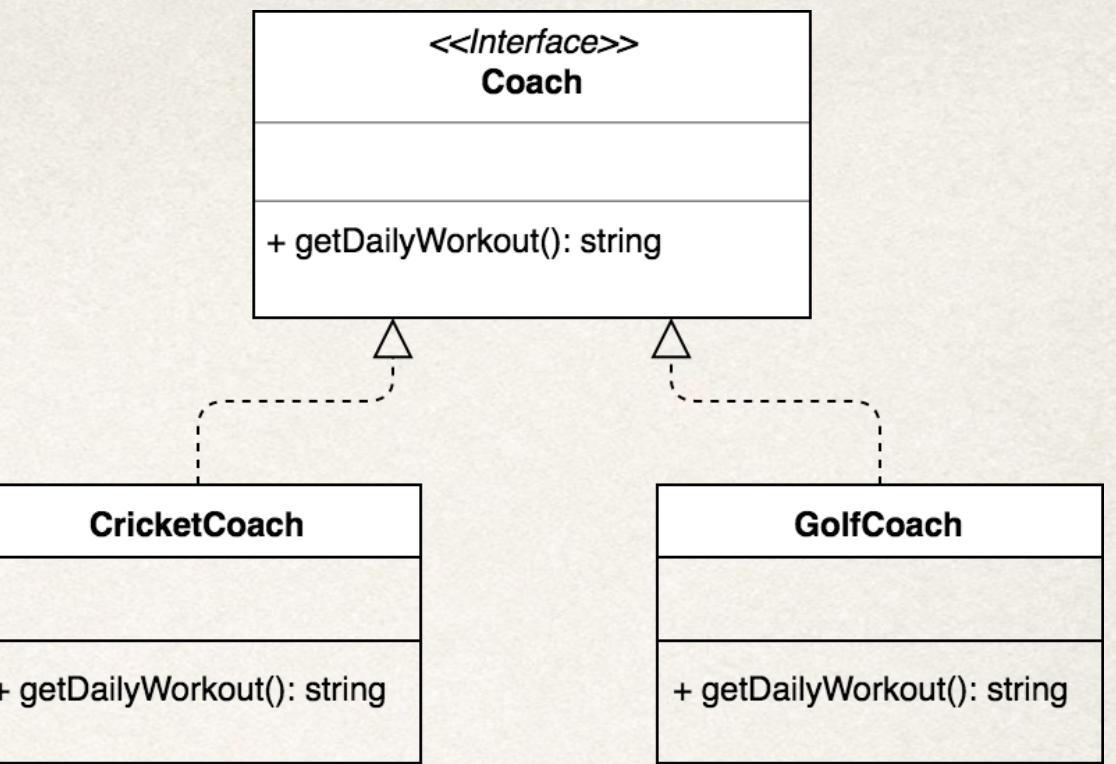
let myCricketCoach = new CricketCoach();
console.log(myCricketCoach.getDailyWorkout());

let myGolfCoach = new GolfCoach();
console.log(myGolfCoach.getDailyWorkout());
```



Practice your spin bowling technique.
Hit 100 balls at the golf range.

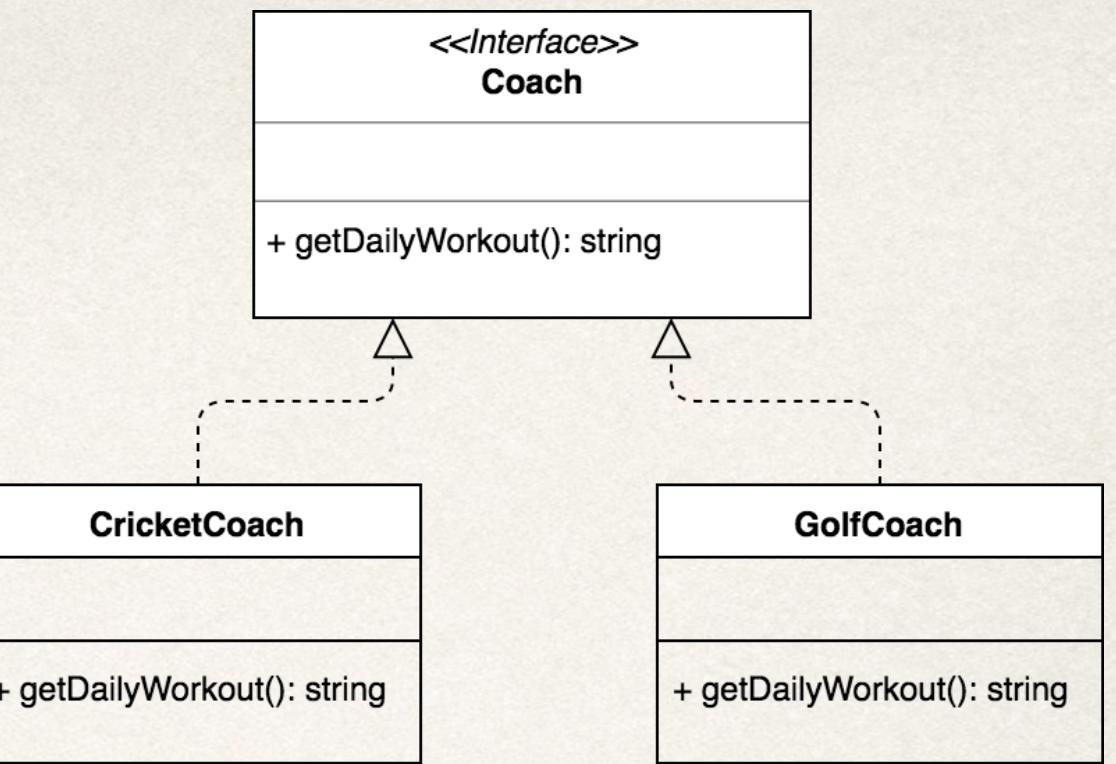
Creating an Array of Coaches



Creating an Array of Coaches

File: ArrayDriver.ts

```
...  
...  
let myCricketCoach = new CricketCoach();  
let myGolfCoach = new GolfCoach();
```



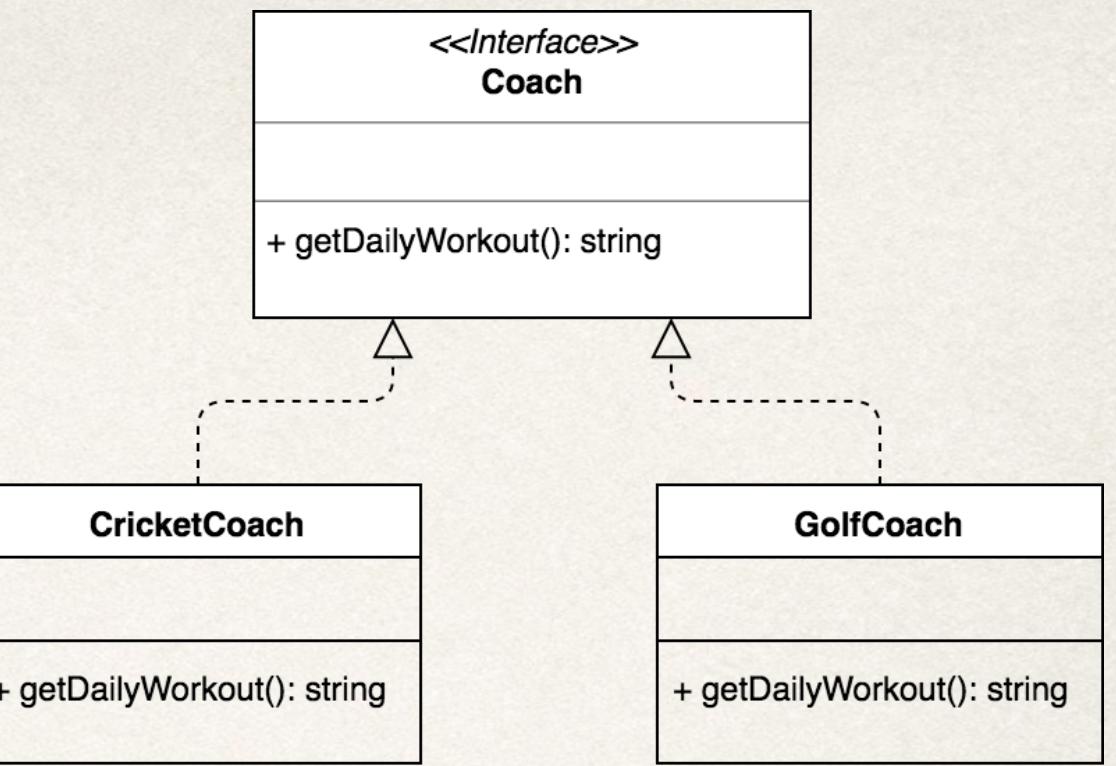
Creating an Array of Coaches

File: ArrayDriver.ts

```
... ...

let myCricketCoach = new CricketCoach();
let myGolfCoach = new GolfCoach();

// declare an array for coaches ... initially empty
let theCoaches: Coach[] = [];
```



Creating an Array of Coaches

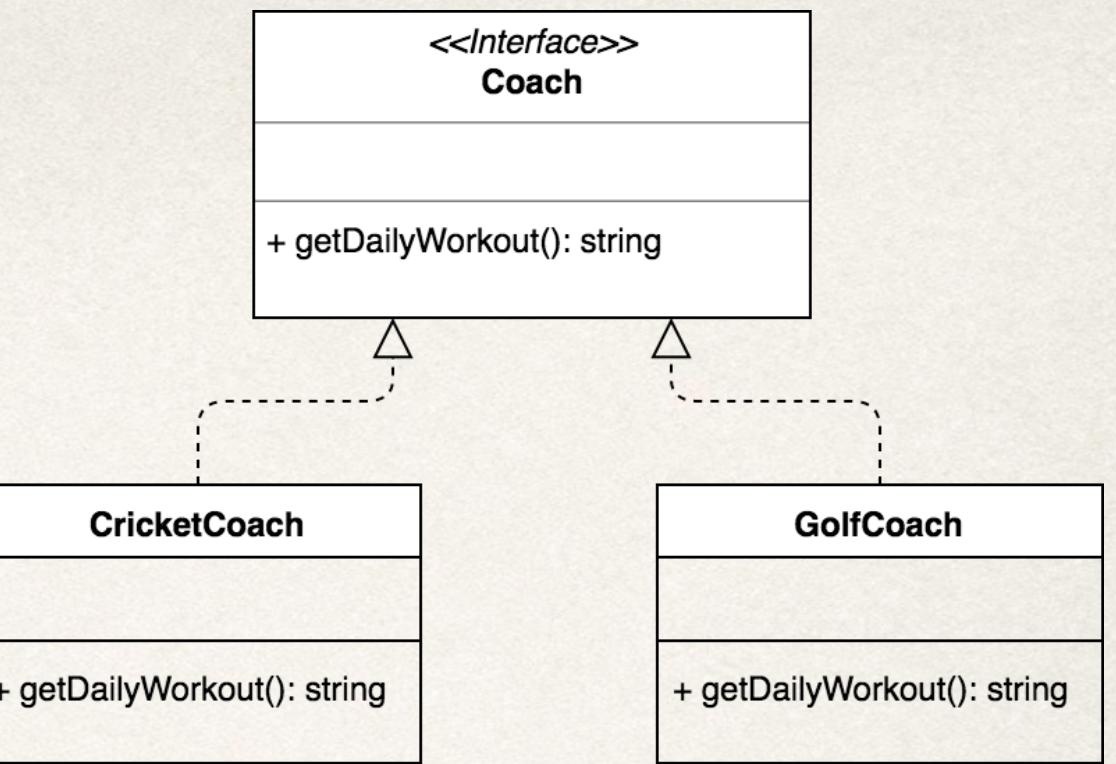
File: ArrayDriver.ts

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let myCricketCoach = new CricketCoach();
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// declare an array for coaches ... initially empty
let theCoaches: Coach[] = [];

// add the coaches to the array
theCoaches.push(myCricketCoach);
theCoaches.push(myGolfCoach);
```



Creating an Array of Coaches

File: ArrayDriver.ts

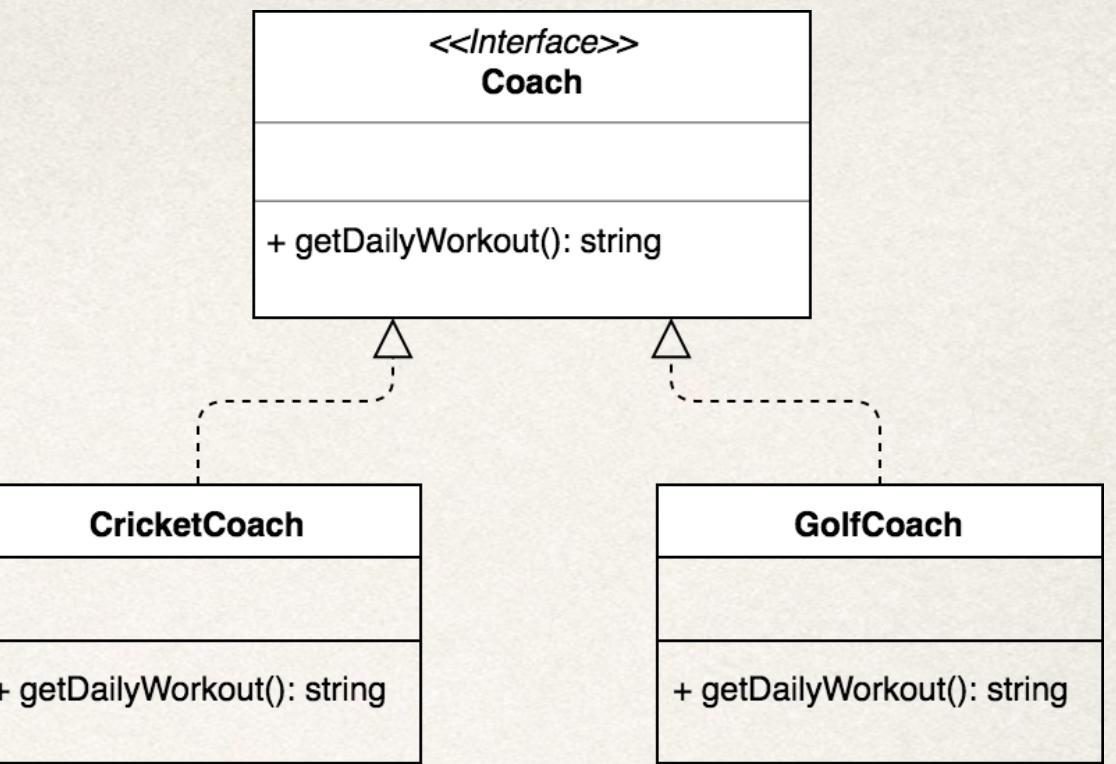
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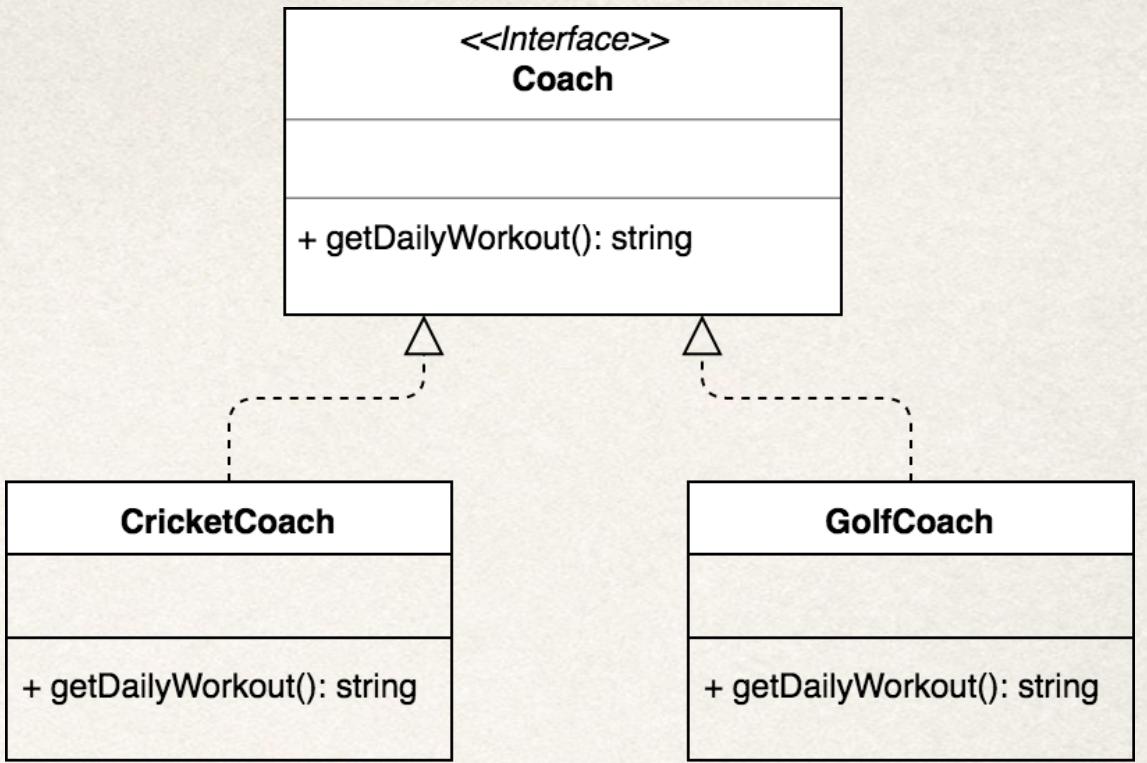
for (let tempCoach of theCoaches) {
    console.log(tempCoach.getDailyWorkout());
}
```



Creating an Array of Coaches

File: ArrayDriver.ts

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...  
  
let myCricketCoach = new CricketCoach();  
let myGolfCoach = new GolfCoach();  
  
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let theCoaches: Coach[] = [];  
  
// add the coaches to the array  
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for (let tempCoach of theCoaches) {  
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