Highlights:

* Angular Component Testing
* Creating TestBed

**Demo Steps:**

1. Create a new Angular project named **AngularTest**with routing option using the below command. We will learn how to test routes later in this course.

1. ng new AngularTest --routing

2. Create a component called **message** using the below command.

1. ng generate component message

3. Copy the below code into **message.component.ts**file

1. import { Component, OnInit } from '@angular/core';
2. @Component({
3. selector: 'app-message',
4. templateUrl: './message.component.html',
5. styleUrls: ['./message.component.css']
6. })
7. export class MessageComponent implements OnInit {
8. title: string;
9. msg: string;
10. val: boolean;
11. constructor() {
12. this.title = "Thought for the day"
13. this.msg = "Success is achived through accurate efforts"
14. this.val = false;
15. }
16. ngOnInit() {
17. }
18. show() {
19. this.val = true;
20. return this.val;
21. }
22. hide(){
23. this.val = false;
24. return this.val;
25. }}

4. Copy the below code into **message.component.html**

1. <div>
2. <h3>{{title}}</h3>
3. </div>
4. <br/>
5. <div>
6. <button type="button" (click)="show()">Show</button>
7. <button type="button" (click)="hide()">Hide</button>
8. </div>
9. <br/>
10. <br/>
11. <div \*ngIf="val" id="msgText">
12. {{msg}}
13. </div>

5. Modify the code inside **AppComponent** class of **app.component.ts** with the code given below

1. export class AppComponent {
2. title = 'Angular Testing';
3. }

6. Modify the code in **app.component.html** with the code given below

1. <div style="text-align:center">
2. <h1>
3. Welcome to {{ title }}!
4. </h1>
5. <br/>
6. <br/>
7. </div>
8. <app-message></app-message>

7. Add the following code in **message.component.spec.ts** file

1. it('title should say Thought for the day',() => {
2. expect(component.title).toEqual('Thought for the day');
3. })
4. it('Should display message', ()=> {
5. expect(component.show()).toBeTruthy();
6. });
7. it('Should hide message', ()=> {
8. expect(component.hide()).toBeFalsy();
9. });
10. it('Message',() =>{
11. let a1= fixture.nativeElement.querySelectorAll('div')
12. let value = a1[1].innerHTML.trim;
13. expect(value).toEqual('Success is achived through accurate efforts'.trim)
14. })

**Note**: we are using trim to ignore the white spaces before and after the text.

8. Since we are using message component in the app component, the app component spec file needs to be updated. Add the MessageComponent in the declarations of the app.component.spec.ts as shown below:

1. describe('AppComponent', () => {
2. beforeEach(async(() => {
3. TestBed.configureTestingModule({
4. declarations: [
5. AppComponent,
6. MessageComponent
7. ],
8. }).compileComponents();
9. }));

9. Run the test cases by using the command **ng test**, and observe that all the four test cases created are being passed.

**Note: ng test** will run **all** the spec files. Therefore, remove the unnecessary test cases from app.component.spec.ts file. Else the test cases of app.component.spec.ts file will fail.