**Overview**

**This project is to demonstrate how to bind the options in a dropdown to a collection and how to bind the selected option to an object in the model.**

**Instructions**

1. Create a new Angular project named angular-topics.
2. Add three subfolders to the src/app directory:
   1. components
   2. services
   3. models
3. Change to the components directory and add a new component named topics-form.
4. Change to the models directory and add a new class named Topic in file topic.ts.
5. Topic should have two private members, name and url. Make them accessible publicly through getters.
6. Change to the services directory and add a new service named topics.
7. In TopicsService, add a single no-arg method named getTopics. This will be a mock data provider.
8. In getTopics, instantiate two Topic objects named 'Template Forms' and 'Reactive Forms'. Find the URL's for each Topic somewhere on angular.io.
9. In getTopics return an array of the two Topic objects.
10. In topics-form.component.ts add a field of type Topic array, call it topics, and assign to it the array of Topic objects retrieved from the TopicsService.
11. In topics-form.component.html add a form with a select with two options. Use Emmet to generate the markup.
12. Set the inner text of the first option to Select.
13. Add the topics-form component to the app component's HTML and serve the app.
14. In the second option, use the for template directive to add the Topic objects in the topics array. Let the option text be the Name of the Topic.
15. In topics-form.component.ts add a field of type Topic and call it selectedTopic.
16. In topics-form.component.html add an h2 below the select and set the content to the URL of the selectedTopic. Make the URL a link.
17. Open the console in developer tools and view the error due to the unassigned selectedTopic. Add an if template directive in the h2 to get rid of this error.
18. Use two-way binding to bind the selected option to the selectedTopic. In the second option, bind the ngValue property to the iterated topic.
19. The first option is now no longer selected by default because the select is bound to the selectedTopic which is defaulted to unassigned.
20. Add a field called emptyOption of type any. Bind the first option to this. The Select option should now be selected by default.

**Questions**

**What is the command to create a new Angular project?**

**How can you open VS Code from the command line to the current folder?**

**In VS Code how can you open the terminal?**

**What is the command to create a new component?**

**What is the shorthand syntax for creating a new component?**

**Which of the following is the correct syntax for a getter?**

1. get Name { return name; }
2. get Name() { return this.name; }
3. get Name { return this.name; }

**What is the command to create a new service?**

**What is the shorthand syntax for creating a new component?**

**How do you use dependency injection to provide a component with an instance of a service?**

**What is the Emmet syntax for generating a form with one select with two options?**

**What compiler error do you get if you simply write [(ngModel)]="selectedTopic"?**

**How do you fix it?**

**What runtime error do you get if you haven't given the select element a name?**

**Why does the following markup not work?**

<a href="selectedTopic.Url">{{selectedTopic.Url}}</a>

**Answers**

**What is the command to create a new Angular project?**

ng new project-name

**How can you open VS Code from the command line to the current folder?**

code .

**In VS Code how can you open the terminal?**

Ctrl + `

**What is the command to create a new component?**

ng generate component component-name

**What is the shorthand syntax for creating a new component?**

ng g c component-name

**Which of the following is the correct syntax for a getter?**

1. get Name { return name; }
2. get Name() { return this.name; }
3. get Name { return this.name; }

**What is the command to create a new service?**

ng generate service service-name

**What is the shorthand syntax for creating a new component?**

ng g s service-name

**How do you use dependency injection to provide a component with an instance of a service?**

constructor(myService : MyService) { … }

**What is the Emmet syntax for generating a form with one select with two options?**

form>select>option\*2

**What compiler error do you get if you simply write [(ngModel)]="selectedTopic"?**

Can't bind to 'ngModel' since it isn't a known property of 'select'.

**How do you fix it?**

Import FormsModule in app.module.ts.

**What runtime error do you get if you haven't given the select element a name?**

If ngModel is used within a form tag, either the name attribute must be set or the form control must be defined as 'standalone' in ngModelOptions.

**Why does the following markup not work?**

<a href="selectedTopic.Url">{{selectedTopic.Url}}</a>

Because you're setting the HTML href attribute to the string "selectedTopic.Url". The correct syntax is to use Property Binding to bind the DOM href property.

<a [href]="selectedTopic.Url">{{selectedTopic.Url}}</a>

Topics Touched On

Access Modifiers and Getters

Dependency Injection

Data Binding