

TS app.component.ts X

Frontend &gt; src &gt; app &gt; TS app.component.ts &gt; AppComponent &gt; addPlan

```
1  import { Component } from '@angular/core';
2  import { Router } from '@angular/router';
3
4  @Component({
5    selector: 'app-root',
6    templateUrl: './app.component.html',
7    styleUrls: ['./app.component.css']
8  })
9  export class AppComponent {
10    constructor(private router:Router){}
11    addPlan(){
12      this.router.navigate(['addPlan']);
13    }
14  }
15
16
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

2: ng serve --open --por

Execute

View Result

```
xt": formControlName="planId" class="form-control">
```

app.component.html X

Frontend &gt; src &gt; app &gt; app.component.html &gt; div &gt; router-outlet

```
1  <!--  
2      1. Add the code to link to the appropriate routes  
3      2. Add the tag required to load the view of routed componen  
4  -->  
5  
6  <nav class="navbar navbar-inverse">  
7      <div class="container-fluid">  
8          <div class="navbar-header">  
9              <a class="navbar-brand" href="#">Pictor Telecom</a>  
10         </div>  
11         <ul class="nav navbar-nav">  
12             <li>  
13                 <a routerLink="/addPlan">Add Plan</a>  
14             </li>  
15             <li>  
16                 <a routerLink="/viewPlan">View Plan</a>  
17             </li>  
18         </ul>  
19     </div>  
20 </nav>  
21 <div>  
22     <router-outlet>/router-outlet</router-outlet>  
23 </div>
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

2: ng serve --open --por

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□

Execute

View Result

xt": FormControlName="planId" class="form-control"&gt;

TS app-routing.module.ts ×

Frontend &gt; src &gt; app &gt; TS app-routing.module.ts &gt; AppRoutingModuleModule

```
1 import { NgModule } from '@angular/core'
2 import { Routes, RouterModule } from '@angular/router';
3 import { AddPlanComponent } from './add-plan/add-plan.component';
4 import { ViewPlanComponent } from './view-plan/view-plan.component';
5
6
7 /*
8  Add the route paths to navigate to appropriate
9  1. /addPlan -> AddPlanComponent
10  2. /viewPlan -> ViewPlanComponent
11  3. In case an Invalid URL is provided, the user must be redirected to the addPlan page.
12  */
13
14
15 export const routes: Routes = [
16   {path: 'addPlan', component: AddPlanComponent},
17   {path: 'viewPlan', component: ViewPlanComponent},
18   {path: '**', redirectTo: 'addPlan', pathMatch: 'full'}
19 ];
20
21
22 @NgModule({
23   imports: [RouterModule.forRoot(routes)],
24   exports: [RouterModule]
25 })
26 export class AppRoutingModule { }
27
```

Execute

View Result



TS app-routing.module.ts X

Frontend &gt; src &gt; app &gt; TS app-routing.module.ts &gt; routes

```
1  import { NgModule } from '@angular/core';
2  import { Routes, RouterModule } from '@angular/router';
3  import { AddPlanComponent } from '../add-plan/add-plan.component';
4  import { ViewPlanComponent } from '../view-plan/view-plan.component';
5
6
7  /*
8   Add the route paths to navigate to appropriate
9   1. /addPlan -> AddPlanComponent
10  2. /viewPlan -> ViewPlanComponent
11  3. In case an Invalid URL is provided, the user must be redirected to the addPlan page.
12  */
13
14
15  export const routes: Routes = [
16    {path: 'addPlan', component: AddPlanComponent},
17    {path: 'viewPlan', component: ViewPlanComponent},
18    {path: '**', redirectTo: 'addPlan', pathMatch: 'full'}
19  ];
20
21
22  @NgModule({
23    imports: [RouterModule.forRoot(routes)],
24    exports: [RouterModule]
25  })
26  export class AppRoutingModule { }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

2: ng serve --open --por

xt": formControlName="planId" class="form-control"&gt;

Execute

View Result

TS unit.pipe.ts X

Frontend &gt; src &gt; app &gt; shared &gt; TS unit.pipe.ts &gt; UnitPipe &gt; transform

```
8
9 1. Sample Input: 0.2
10 | Expected Output: 200 MB
11
12 2. Sample Input: 5
13 | Expected Output: 5 GB
14
15
16 Hint: 1 GB = 1000 MB
17
18 */
19
20
21 @Pipe({
22   name: 'unitPipe'
23 })
24 export class UnitPipe implements PipeTransform {
25
26   transform(value: any): any {
27     // Code here
28     if(value<1){
29       return value*1000 + 'MB'
30     }
31   }
32   else{
33     return value + 'GB'
34   }
35 }
```

Execute

View Result

TS unit.pipe.ts

TS rest.service.ts X

Frontend &gt; src &gt; app &gt; shared &gt; TS rest.service.ts &gt; PlanService &gt; deletePlan

```
1 import { Injectable } from '@angular/core';
2 import { HttpClient, HttpParams } from '@angular/common/http';
3 import { Observable } from 'rxjs';
4
5
6 @Injectable({
7   providedIn: 'root'
8 })
9 export class PlanService {
10
11   url = "http://localhost:3020/planDetails" /*Provide the URL of the web service to consume*/
12
13   constructor(private httpClient: HttpClient) { }
14
15   /*
16    Consumes the web service exposed at the URL -> http://localhost:3020/planDetails
17    After sending the request, the response must be an Observable
18    Return the response back to the AddPlanComponent
19   */
20
21   addPlan(data: any) :Observable<any> {
22     // Code here
23     return this.httpClient.post(this.url,data);
24   }
25
26   /*
27   Consumes the web service exposed at the URL -> http://localhost:3020/planDetails
28   After sending the request, the response must be an observable of array"
```

Execute

View Result



TS unit.pipe.ts

TS rest.service.ts X

Frontend &gt; src &gt; app &gt; shared &gt; TS rest.service.ts &gt; PlanService &gt; deletePlan

```
27  Consumes the web service exposed at the URL -> http://localhost:3020/planDetails
28  After sending the request, the response must be an observable of array"
29  Return the response back to the ViewPlanComponent
30
31  */
32  getPlanIds():Observable<any> {
33      // Code here
34      return this.httpClient.get(this.url)
35  }
36
37  /*
38  Consumes the web service exposed at the URL -> http://localhost:3020/planDetails/:planId
39  After sending the request, the response must be an Observable of type 'Plan'
40  Return the response back to the PlanDetailsComponent
41  */
42
43  getPlanDetails(planId): Observable<any> {
44      // Code here
45      var params= new HttpParams().set('planId',planId);
46      return this.httpClient.put(this.url,{params})
47  }
48
49
50
51  /*
52  Consumes the web service exposed at the URL -> http://localhost:3020/planDetails/:planId
53  After sending the request, the response must be an Observable
54  Return the response back to the PlanDetailsComponent
55  */
```

Execute

View Result

TS unit.pipe.ts

TS rest.service.ts X

Frontend &gt; src &gt; app &gt; shared &gt; TS rest.service.ts &gt; PlanService &gt; deletePlan

```
51  /*
52  Consumes the web service exposed at the URL -> http://localhost:3020/planDetails/:planId
53  After sending the request, the response must be an Observable
54  Return the response back to the PlanDetailsComponent
55  */
56
57  deletePlan(planId) {
58      // Code here
59      var params= new HttpParams().set('planId',planId);
60      return this.httpClient.delete([this.url,{params}])
61  }
62
63  }
64
```

Execute

View Result



TS unit.pipe.ts

TS add-plan.component.ts X

Frontend &gt; src &gt; app &gt; add-plan &gt; TS add-plan.component.ts &gt; AddPlanComponent

```
1 import { Component, OnInit } from '@angular/core';
2 import { FormBuilder, FormGroup, FormControl, Validators } from '@angular/forms';
3 import { PlanService } from '../shared/rest.service';
4
5 @Component({
6   selector: 'app-add-plan',
7   templateUrl: './add-plan.component.html',
8   styleUrls: ['./add-plan.component.css']
9 })
10
11 export class AddPlanComponent implements OnInit {
12
13   errorMessage: string;
14   successMessage: string;
15   addPlanForm: FormGroup;
16
17   constructor(private fb: FormBuilder, private planService: PlanService) { }
18
19
20   ngOnInit() {
21     //Add specified validators
22     this.addPlanForm = new FormGroup({
23       planValue: new FormControl('', [Validators.required]),
24       data: new FormControl('', [Validators.required, Validators.max(200)]),
25       unLimitedCalls: new FormControl('', [Validators.required]),
26       addOns: new FormControl('', [Validators.required, Validators.pattern(/^[A-Z0-9-!@#%&^*
27       ()_+=\\\'";\`\/?>.<,-]*$/i)]),
28       planType: new FormControl('', [Validators.required]),
```

Execute

View Result



TS unit.pipe.ts

TS add-plan.component.ts X



Frontend &gt; src &gt; app &gt; add-plan &gt; TS add-plan.component.ts &gt; AddPlanComponent

```
27     planType: new FormControl('', [Validators.required]),
28
29   })
30 }
31
32 /*
33 It should invoke addPlan() method of PlanService by passing addPlanForm object as a
34 parameter.
35 The success callback should populate the successMessage with the message in response
36 The error callback should populate the errorMessage with the message in response
37 */
38 addPlan() {
39   // Code here
40   this.planService.addPlan(this.addPlanForm.value).subscribe((data) => {
41     this.successMessage = data.message;
42   })
43   this.planService.addPlan(this.addPlanForm.value).subscribe((data) => {
44     this.errorMessage = data.message;
45   })
46 }
47
48
49
50 }
51
```

Execute

View Result

TS unit.pipe.ts

add-plan.component.html X

add-plan.component.html &gt; div.col-md-6.col-md-offset-3 &gt; div.panel.panel-primary &gt; div.panel-body &gt; form &gt; textarea#addOns.form-control

```
1  <!--
2    Note:
3      1. Use FormControlName as id for each input field.
4
5    eg:
6      <input type="text" FormControlName="userName" id="userName"/>
7  -->
8
9
10
11
12  <div class="col-md-6 col-md-offset-3">
13    <br/>
14    <div class="panel panel-primary">
15      <div class="panel-heading">Create a new plan</div>
16      <div class="panel-body">
17        <!-- Create the form -->
18        <form [formGroup]="addPlanForm" (ngSubmit)="addPlan()">
19          <label for="planValue">Plan Value</label>
20          <input type="text" FormControlName="planValue" id="planValue"
21            class="form-control">
22          <div class="form-group">
23            <label for="data">GB/Day</label>
24            <input type="number" FormControlName="data" id="data" class="form-control">
25          </div>
26          <div class="form-group">
27            <label for="unLimitedCalls">unLimited Calls</label>
28            <label for="True">True</label>
```

Execute

View Result



add-plan.component.html - Certification\_Assessment - Visual Studio Code

File Edit Selection View Go Run Terminal Help

TS unit.pipe.ts add-plan.component.html

add-plan.component.html > div.col-md-6.col-md-offset-3 > div.panel.panel-primary > div.panel-body > form > textarea#addOns.form-control

26 <label for="unLimitedCalls">unLimited calls</label>  
27 <label for="True">True</label>  
28 <input type="radio" id="unLimitedCalls1" name="True" value="1">  
29 <label for="False">False</label>  
30 <input type="radio" id="unLimitedCalls2" name="False" value="2">  
31 <!-- <input type="radio" formControlName="unLimitedCalls"  
id="unLimitedCalls1" value="True" class="form-control">  
32 <label for="True">True</label>  
33 <input type="radio" formControlName="unLimitedCalls"  
id="unLimitedCalls2" value="False" class="form-control">  
34 <label for="False">False</label>-->  
35 </div>  
36 <label for="addOns">Add-ons</label>  
37 <textarea type="text" formControlName="addOns" id="addOns"  
class="form-control"></textarea>  
38 <label for="planType">Plan Type</label>  
39 <div class="form-group">  
40 <input type="radio" formControlName="planType" id="planType1"  
value="Postpaid" class="form-control">  
41 <label for="Postpaid">Postpaid</label>  
42 <input type="radio" formControlName="planType" id="planType2"  
value="Prepaid" class="form-control">  
43 <label for="Prepaid">Prepaid</label>  
44 </div>  
45 <button class="btn btn-primary" [disabled]="addPlanForm.invalid"  
46 type="submit"></button>  
47 </form>  
48

Execute

View Result

add-plan.component.html - Certification\_Assessment - Visual Studio Code

File Edit Selection View Go Run Terminal Help

TS unit.pipe.ts add-plan.component.html

add-plan.component.html > div.col-md-6.col-md-offset-3 > div.panel.panel-primary > div.panel-body > form > textarea#addOns.form-control

42 <input type="radio" formControlName="planType" id="planType2"

43 value="Prepaid" class="form-control">

44 <label for="Prepaid">Prepaid</label>

45 </div>

46 <button class="btn btn-primary" [disabled]="addPlanForm.invalid"

47 type="submit"></button>

48 </form>

49

50 </div>

51 </div>

52 </div>

Execute

View Result



TS unit.pipe.ts

TS plan-details.component... X



Frontend &gt; src &gt; app &gt; plan-details &gt; TS plan-details.component.ts &gt; PlanDetailsComponent &gt; deletePlan &gt; subscribe() callback

```
1 import { Component } from '@angular/core';
2 import { PlanService } from '../shared/rest.service'
3
4 @Component({
5   selector: 'app-plan-details',
6   templateUrl: './plan-details.component.html',
7   styleUrls: ['./plan-details.component.css']
8 })
9 export class PlanDetailsComponent {
10
11   constructor(private planService: PlanService) { }
12
13   planDetails: any;
14   displayMessage: string;
15   pId: number;
16   bool: any;
17
18   /*
19    1. Add the appropriate decorator to below setter method so that it can receive
20    the data sent by ViewPlan Component
21    2. It should invoke getPlanDetails() of PlanService, which in turn returns an
22    observable
23    3. The success callback should populate the planDetails with response
24   */
25
26   set planId(pId: number) {
27     // Code here
```

Execute

View Result



TS unit.pipe.ts

TS plan-details.component... X

Frontend &gt; src &gt; app &gt; plan-details &gt; TS plan-details.component.ts &gt; PlanDetailsComponent &gt; deletePlan &gt; subscribe() callback

```
24  */
25
26  set planId(pId: number) {
27      // Code here
28  }
29
30
31
32  /**
33   * 1. It should invoke deletePlan() of PlanService
34   *    by passing the value of pId which in turn returns an observable
35   * 2. The success callback should populate the displayMessage with message in response
36   */
37
38  deletePlan() {
39      // Code here
40      this.planService.deletePlan(this.pId).subscribe((data: any) => {
41          this.displayMessage = data.message;
42      });
43  }
44
45  }
46
```

Execute

View Result

TS unit.pipe.ts

TS view-plan.component.ts X

Frontend &gt; src &gt; app &gt; view-plan &gt; TS view-plan.component.ts &gt; ViewPlanComponent &gt; getIds &gt; subscribe() callback

```
1 import { Component, DoCheck } from '@angular/core';
2 import { PlanService } from '../shared/rest.service';
3
4 @Component({
5   selector: 'app-view-plan',
6   templateUrl: './view-plan.component.html',
7   styleUrls: ['./view-plan.component.css']
8 })
9 export class ViewPlanComponent implements DoCheck {
10
11   planIds: Array<any> = []
12   pId: number = null
13
14   constructor(private planService: PlanService) { }
15
16   //It should invoke getIds() method
17   ngDoCheck() {
18     this.getIds()
19   }
20
21
22   /*
23    1. It should invoke getPlanIds() of PlanService.
24    2. The success callback should populate the planIds with the message in response.
25   */
26   getIds() {
27     this.planService.getPlanIds().subscribe((data: any) => {
28       this.planIds = data;
```

Execute

View Result

TS unit.pipe.ts

TS view-plan.component.ts X

Frontend &gt; src &gt; app &gt; view-plan &gt; TS view-plan.component.ts &gt; ViewPlanComponent &gt; getIds &gt; subscribe() callback

```
11 planIds: any[] = []
12 pId: number = null
13
14 constructor(private planService: PlanService) { }
15
16 //It should invoke getIds() method
17 ngDoCheck() {
18   this.getIds()
19 }
20
21
22 /*
23  1. It should invoke getPlanIds() of PlanService.
24  2. The success callback should populate the planIds with the message in response.
25 */
26 getId() {
27   this.planService.getPlanIds().subscribe((data: any) => {
28     this.planIds = data;
29   })
30 }
31
32
33 }
34
```

Execute

View Result



TS unit.pipe.ts

view-plan.component.html X

&gt; view-plan.component.html &gt; div.row &gt; div.col-md-6.col-md-offset-3 &gt; div.panel.panel-primary &gt; div.panel-body &gt; div.form-group &gt; label

```
4  -->
5
6
7  <div class="row">
8    <div class="col-md-6 col-md-offset-3">
9      <br/>
10     <div class="panel panel-primary">
11       <div class="panel-heading"> View Plan </div>
12       <div class="panel-body">
13         <!-- Code here-->
14         <div class="form-group">
15           <label for="planId"> /label
16           <input type="text": FormControlName="planId" class="form-control">
17           <div id="planIdEerr" class="text-danger" *ngif="planId.controls.planId.
            dirty && planId.controls.planId.invalid"></div>
18         </div>
19       </div>
20     </div>
21   </div>
22 </div>
23 </div>
```

Execute

View Result