SIA: Retrieve Related Data

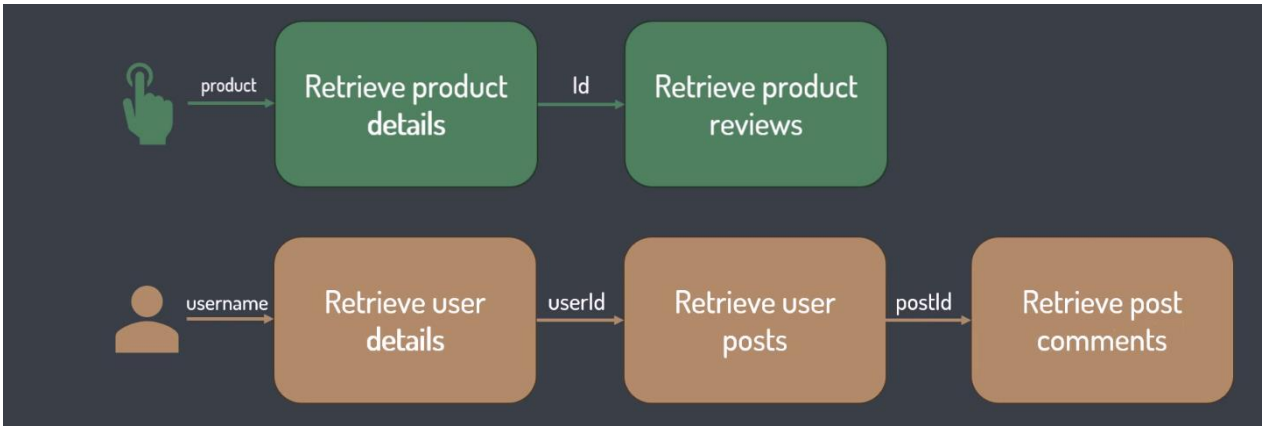
Deborah Kurata
19.5K subscribers
Subscribe

191 Share Download Thanks ...

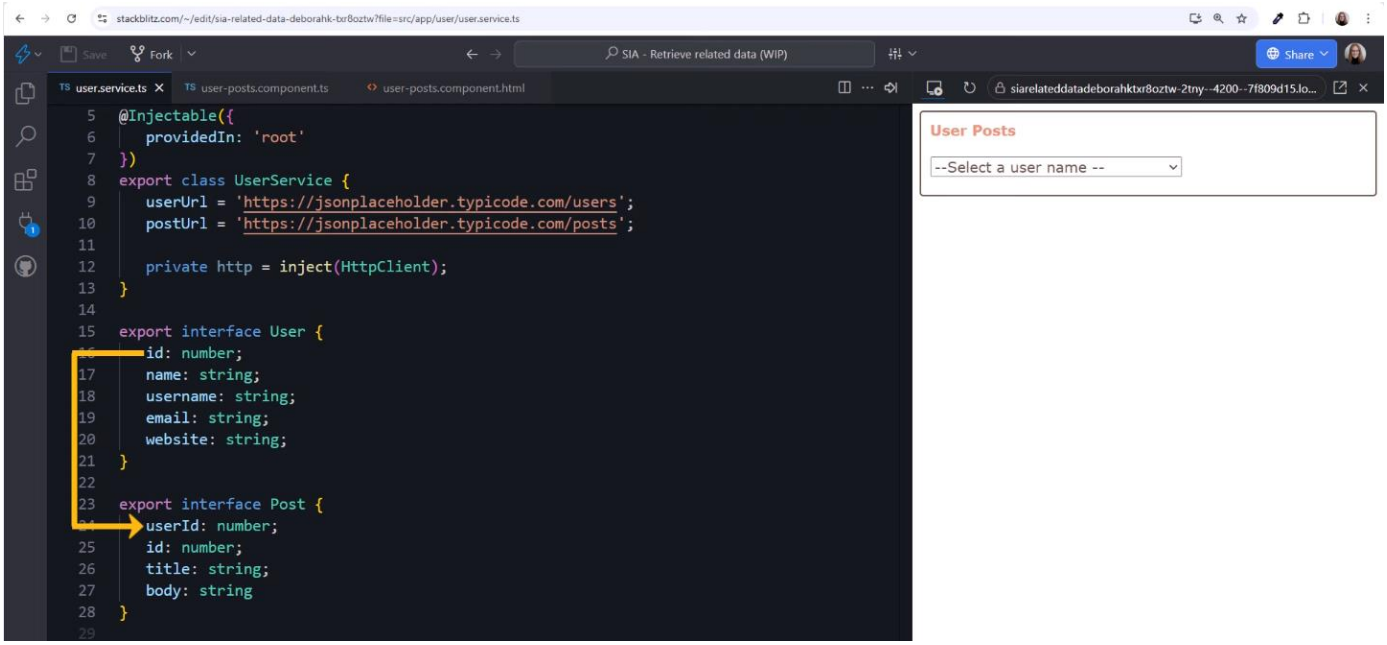
1,906 views Feb 19, 2025 #angular #resource #angularsignals
When retrieving data, we often have other, related data to retrieve.

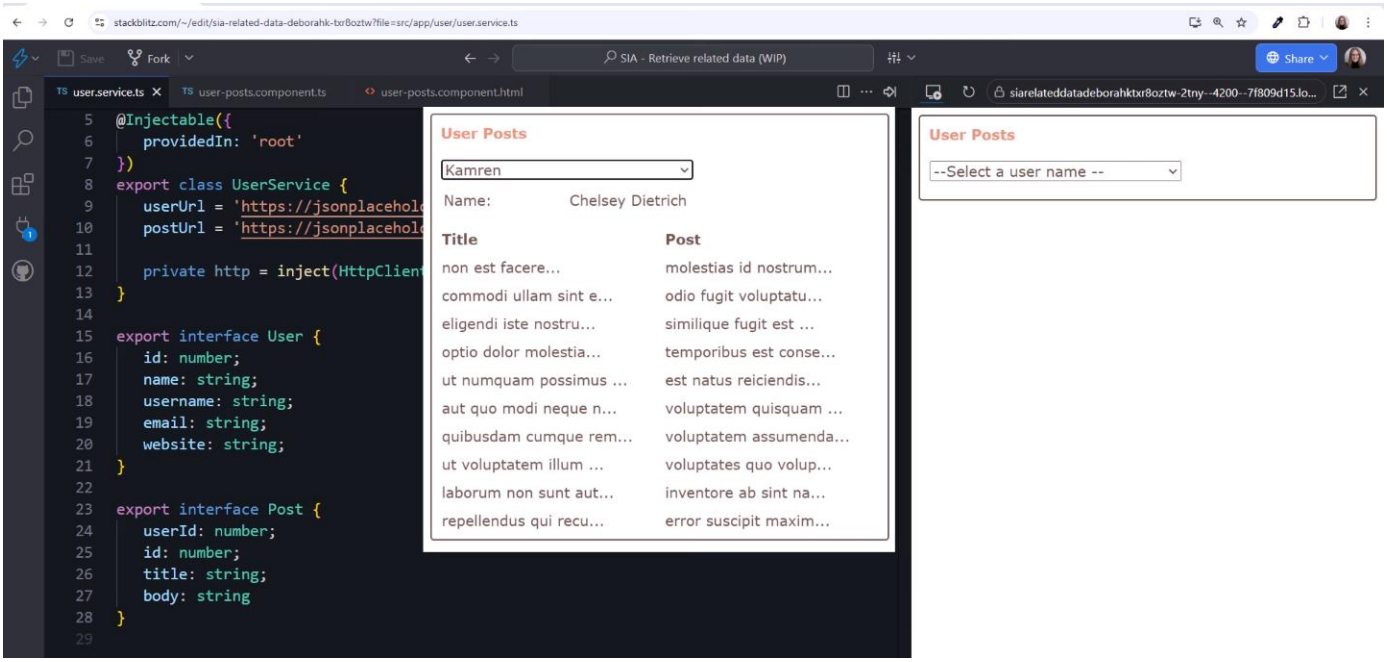
Say we're creating an app to manage our team's communication. A user enters their username and we retrieve detailed user information. And then take the user Id from those details and retrieve that user's posts. If the user selects a post, we display its associated comments.

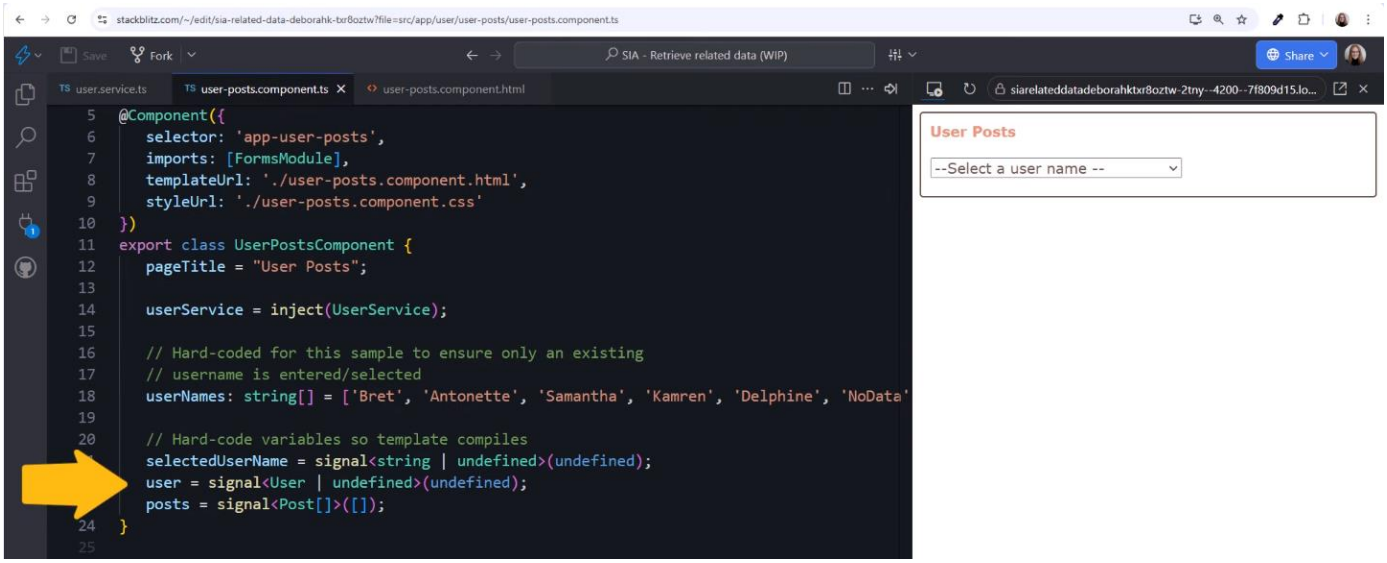
In this video, we use the new, experimental resource API to retrieve related data. And we take a quick look at the RxJS observable pipeline code required to achieve the same task, just for comparison.

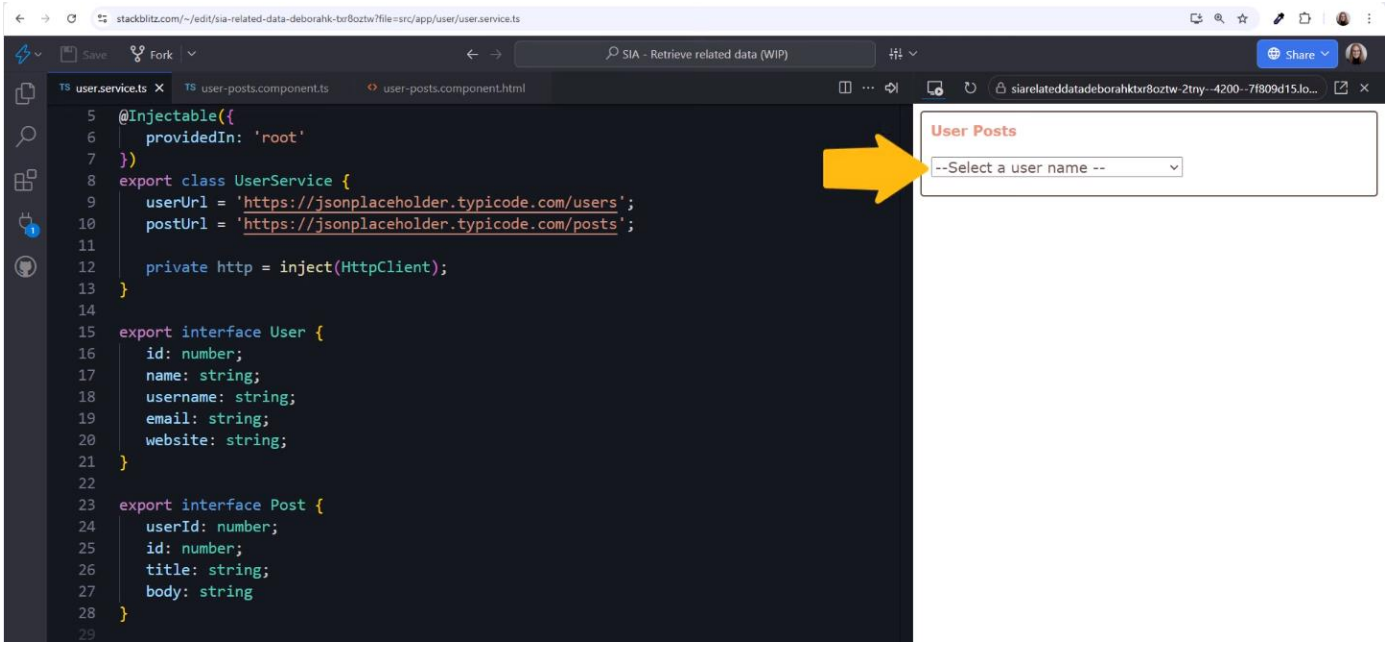


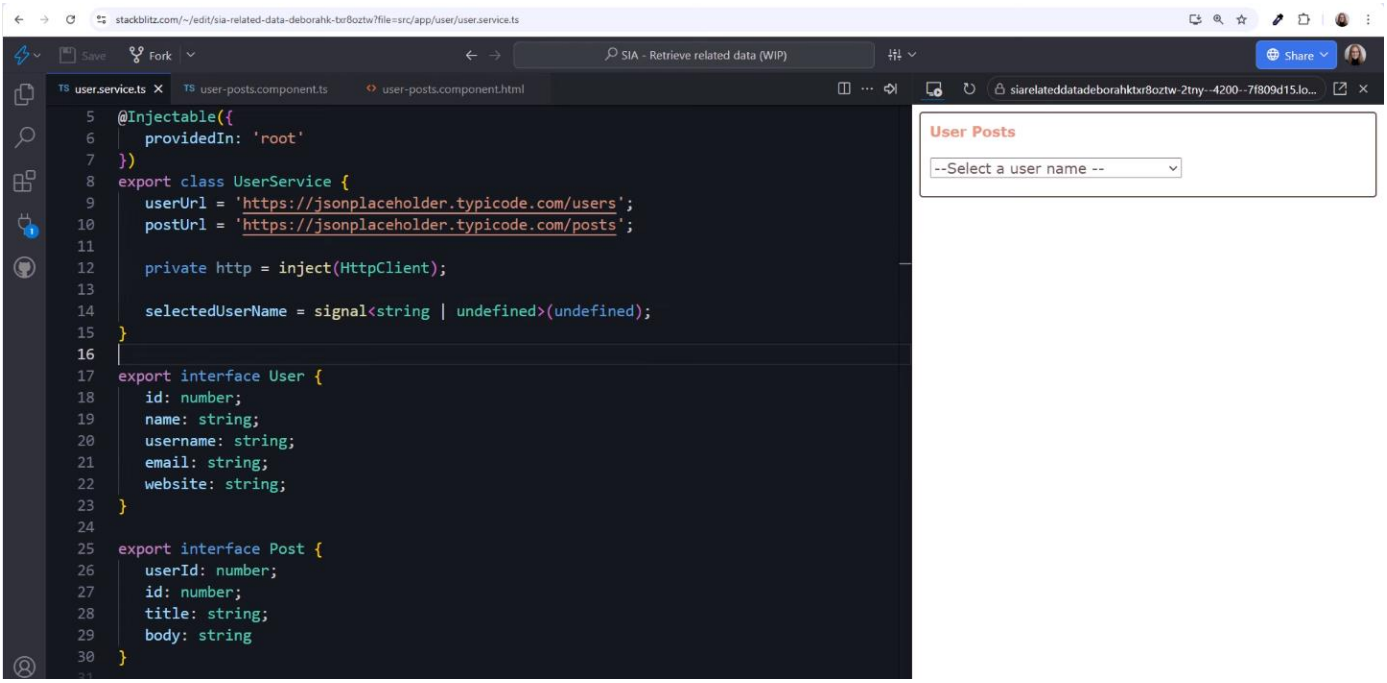
We will compare the new **Resource API** with the previous **RxJS** approach for getting related data



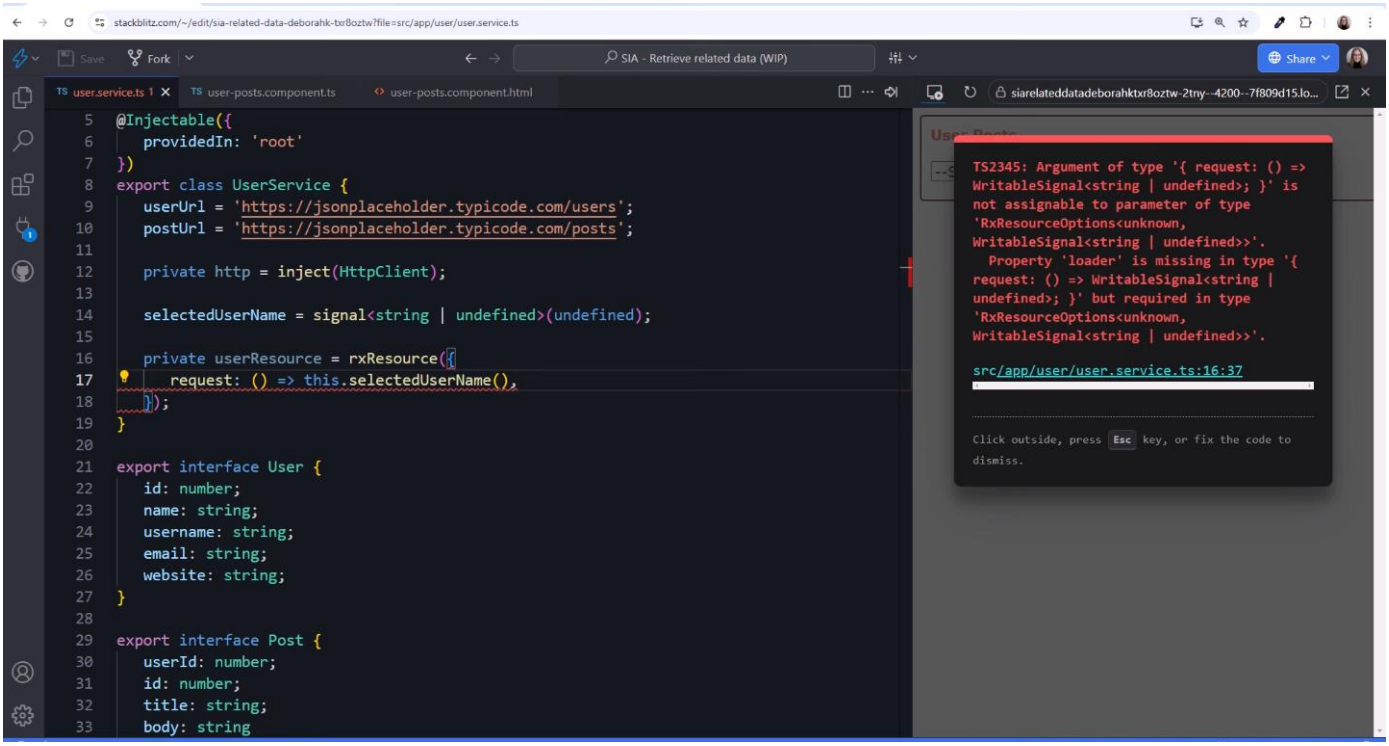

stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user.service.ts
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
@Injectable({
providedIn: 'root'
})
export class UserService {
userUrl = 'https://jsonplaceholo
postUrl = 'https://jsonplaceholo
private http = inject(HttpClient
}
export interface User {
id: number;
name: string;
username: string;
email: string;
website: string;
}
export interface Post {
userId: number;
id: number;
title: string;
body: string
}
User Posts
Kamren
Name: Chelsey Dietrich
Title
Post
non est facere...
molestias id nostrum...
commodi ullam sint e...
odio fugit voluptatu...
eligendi iste nostru...
similique fugit est ...
optio dolor molestia...
temporibus est conse...
ut numquam possimus ...
est natus reiciendis...
aut quo modi neque n...
voluptatem quisquam ...
quibusdam cumque rem...
voluptatem assumenda...
ut voluptatem illum ...
voluptates quo volup...
laborum non sunt aut...
inventore ab sint na...
repellendus qui recu...
error suscipit maxim...
User Posts
--Select a user name --


stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user-posts/user-posts.component.ts
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
@Component({
selector: 'app-user-posts',
imports: [FormsModule],
templateUrl: './user-posts.component.html',
styleUrl: './user-posts.component.css'
})
export class UserPostsComponent {
pageTitle = "User Posts";
userService = inject(UserService);
// Hard-coded for this sample to ensure only an existing
// username is entered/selected
userNames: string[] = ['Bret', 'Antonette', 'Samantha', 'Kamren', 'Delphine', 'NoData'
// Hard-code variables so template compiles
selectedUserName = signal<string | undefined>(undefined);
user = signal<User | undefined>(undefined);
posts = signal<Post[]>([]);
}
User Posts
--Select a user name --

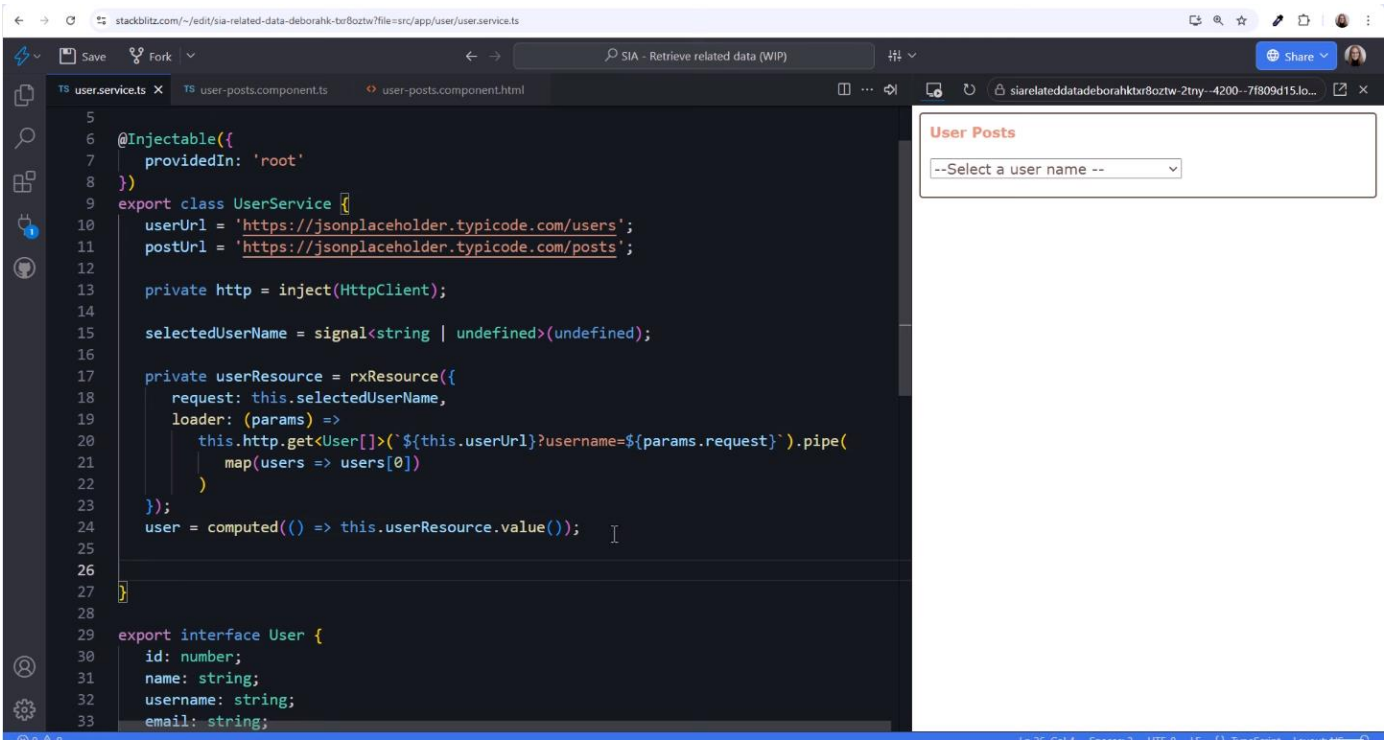

stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user.service.ts
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
@Injectable({
providedIn: 'root'
})
export class UserService {
userUrl = 'https://jsonplaceholder.typicode.com/users';
postUrl = 'https://jsonplaceholder.typicode.com/posts';
private http = inject(HttpClient);
}
export interface User {
id: number;
name: string;
username: string;
email: string;
website: string;
}
export interface Post {
userId: number;
id: number;
title: string;
body: string
}
User Posts
--Select a user name --



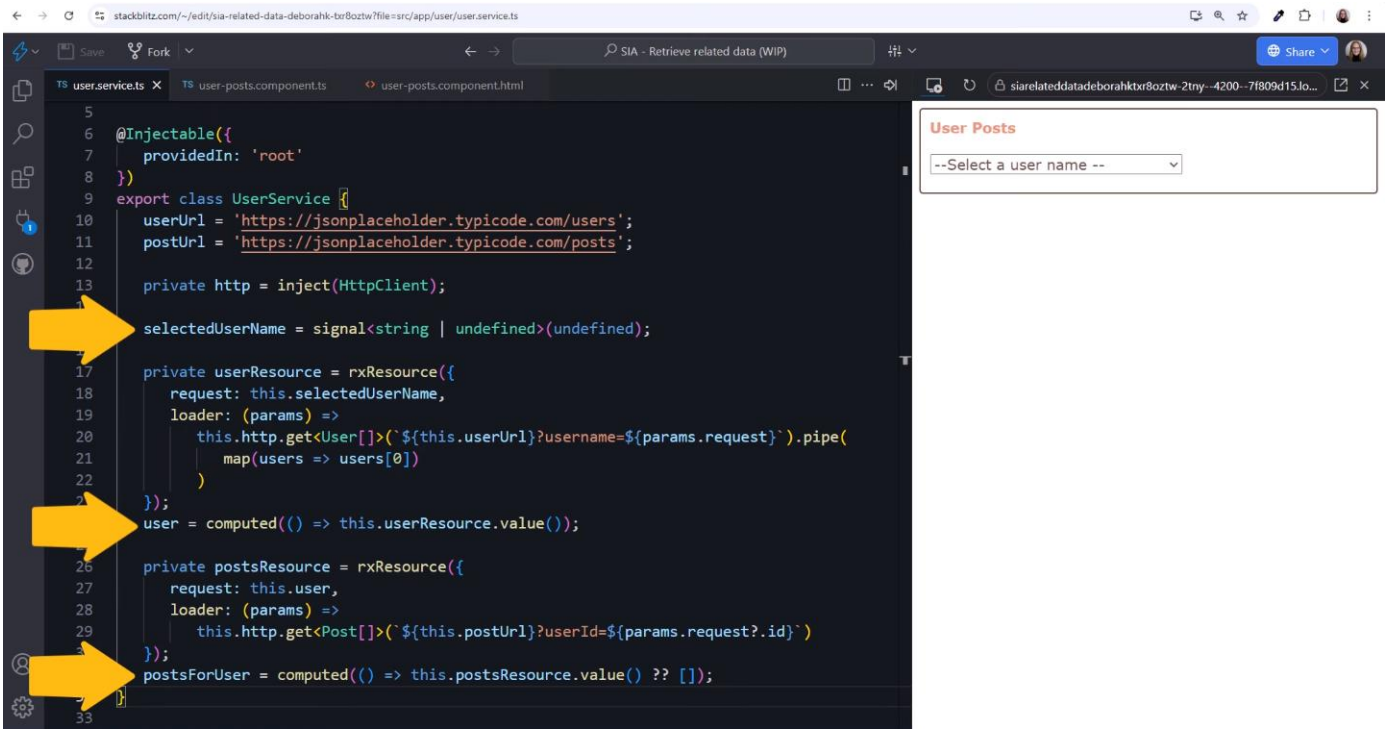
Next, let us get the user data using the resource API as below



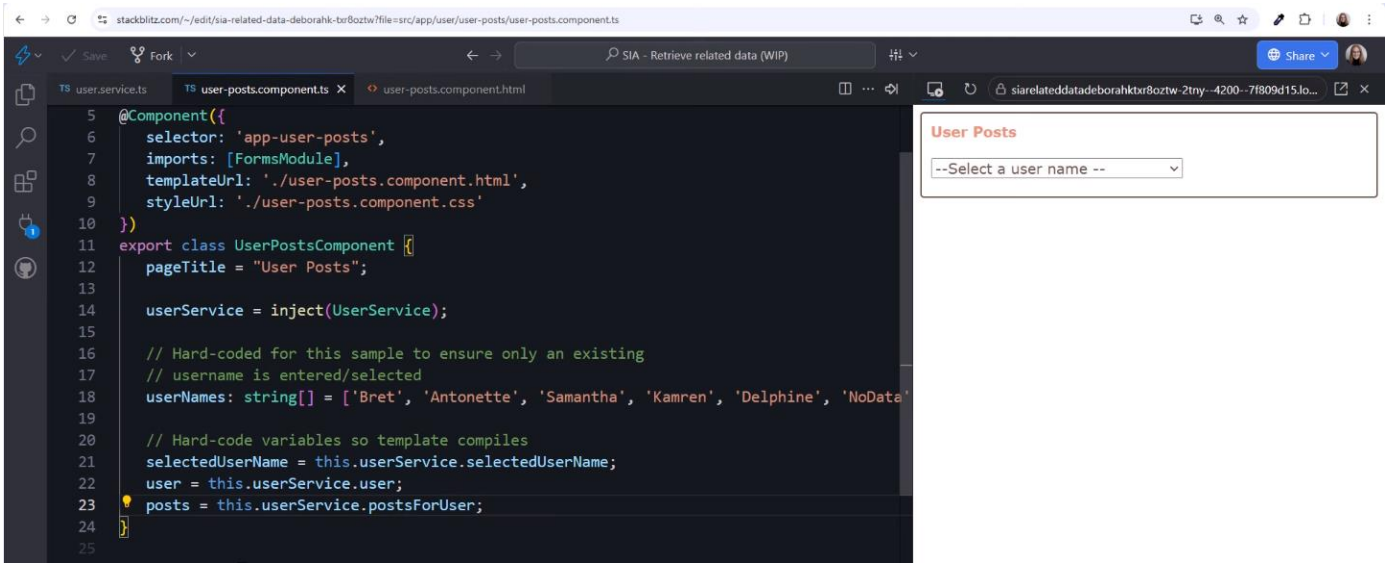
We want to get the data anytime the user changes

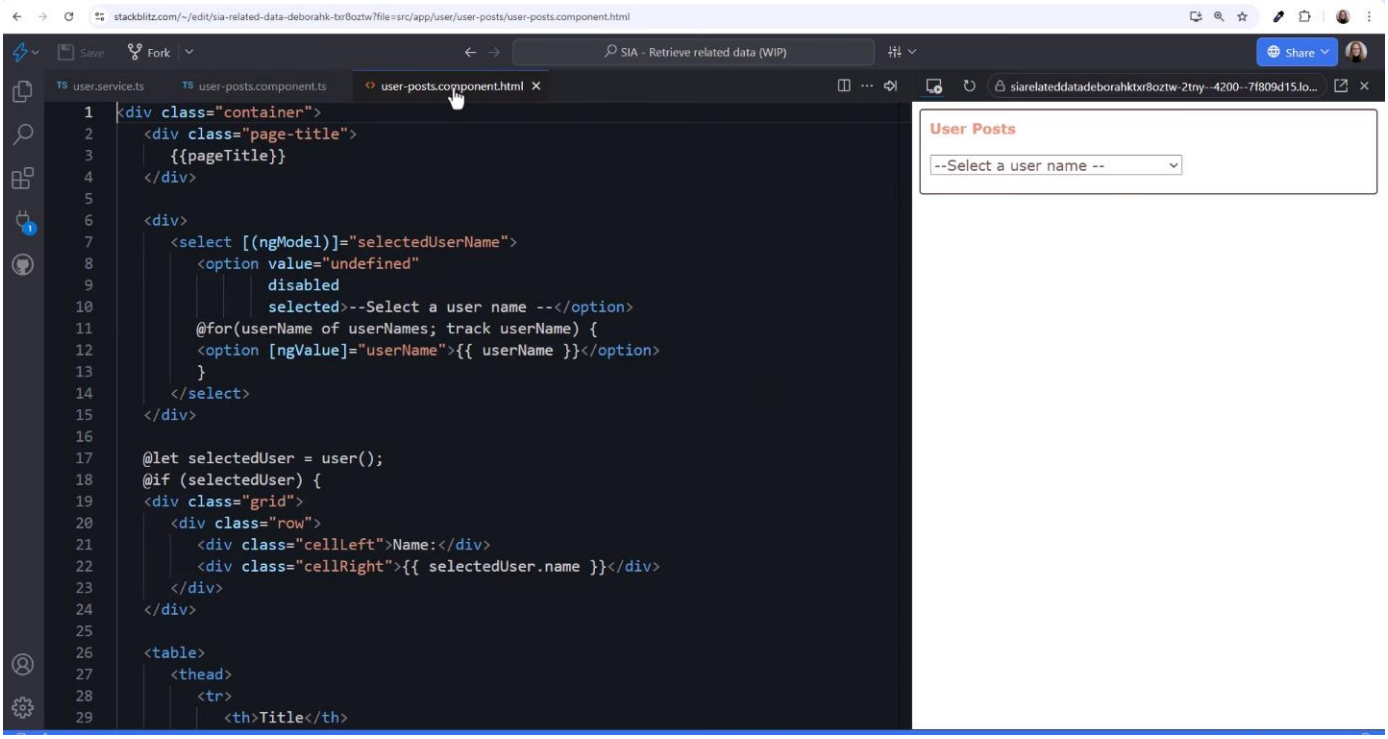


Since we have the user data, we can retrieve the related posts for that user using the resource API as below



Next, let us reference these signals from the component as below


stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user-posts/user-posts.component.ts
Save
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
siarelateddatadeborahktxr8oztw-2tny--4200--7f809d15.lo...
@Component({
selector: 'app-user-posts',
imports: [FormsModule],
templateUrl: './user-posts.component.html',
styleUrl: './user-posts.component.css'
})
export class UserPostsComponent {
pageTitle = "User Posts";
userService = inject(UserService);
// Hard-coded for this sample to ensure only an existing
// username is entered/selected
userNames: string[] = ['Bret', 'Antonette', 'Samantha', 'Kamren', 'Delphine', 'NoData'
// Hard-code variables so template compiles
selectedUserName = this.userService.selectedUserName;
user = this.userService.user;
posts = this.userService.postsForUser;
}
User Posts
--Select a user name --


stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user-posts/user-posts.component.html
Save
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
siarelateddatadeborahktxr8oztw-2tny--4200--7f809d15.lo...

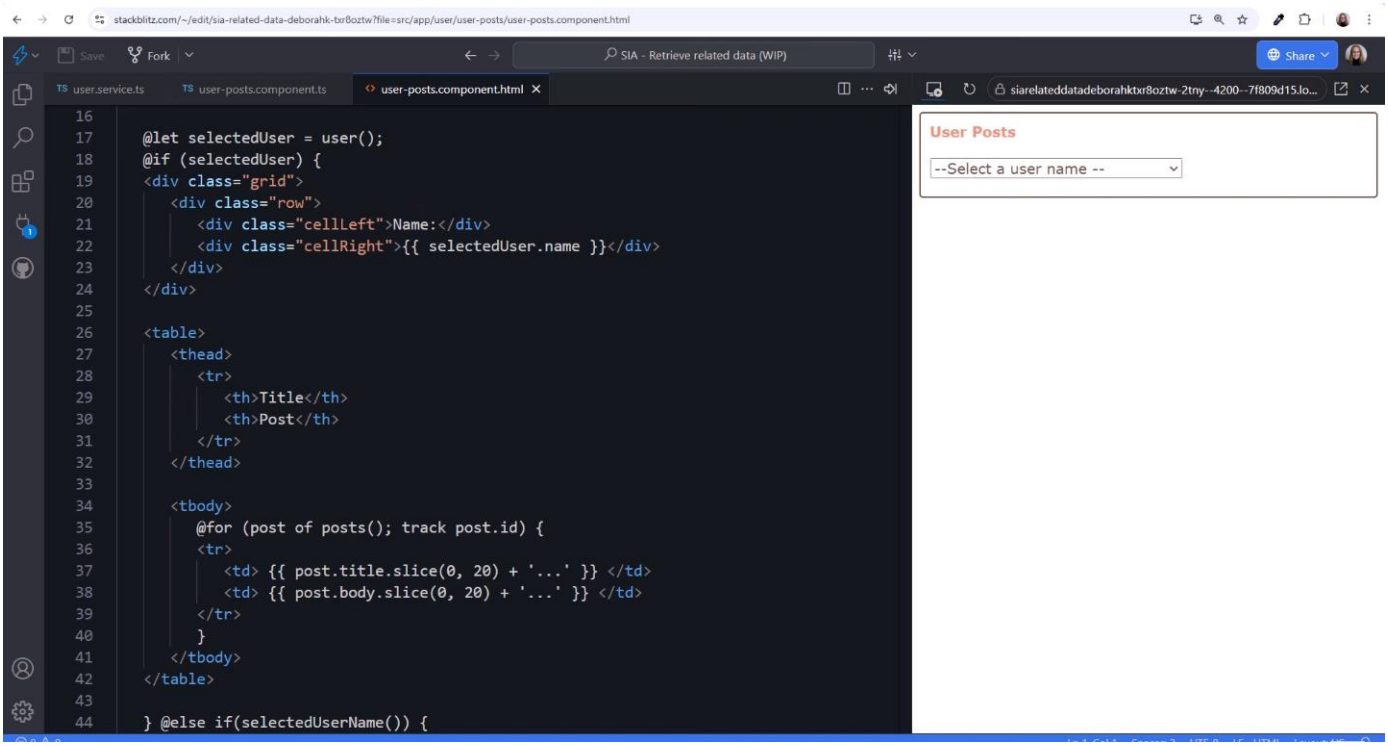
{{pageTitle}}

<select [(ngModel)]="selectedUserName">
<option value="undefined"
disabled
selected>--Select a user name --</option>
@for(userName of userNames; track userName) {
<option [ngValue]="userName">{{ userName }}</option>
}
</select>

@let selectedUser = user();
@if (selectedUser) {

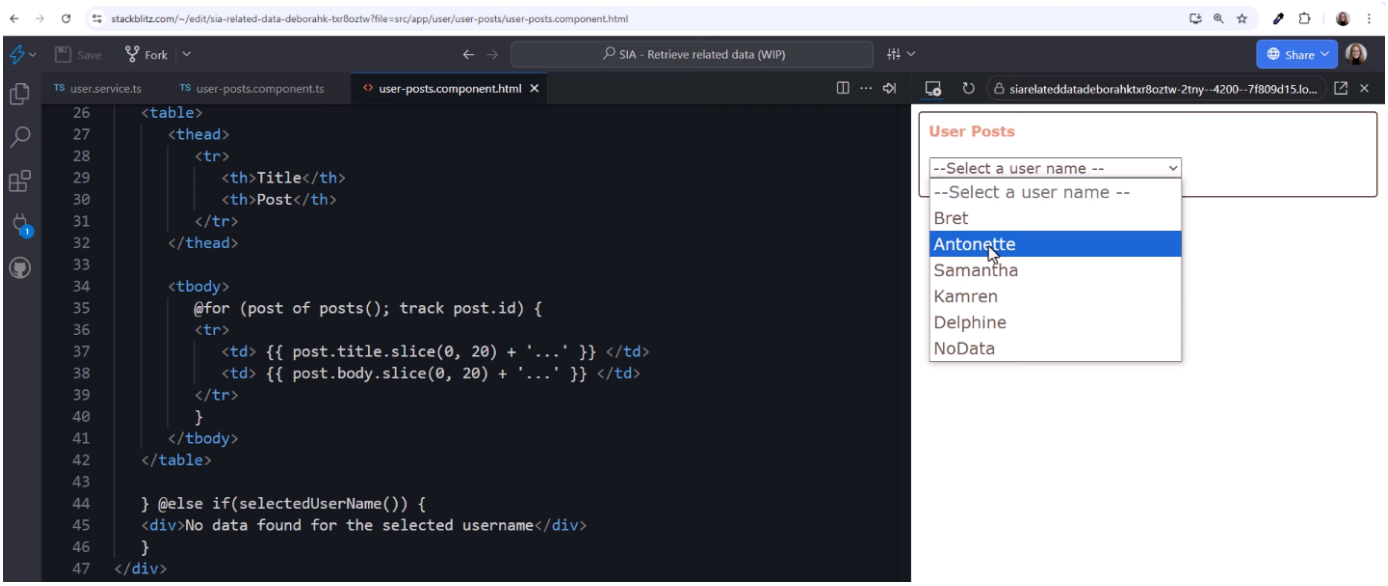
Name:
{{ selectedUser.name }}

<table>
<thead>
<tr>
<th>Title</th>
User Posts
--Select a user name --

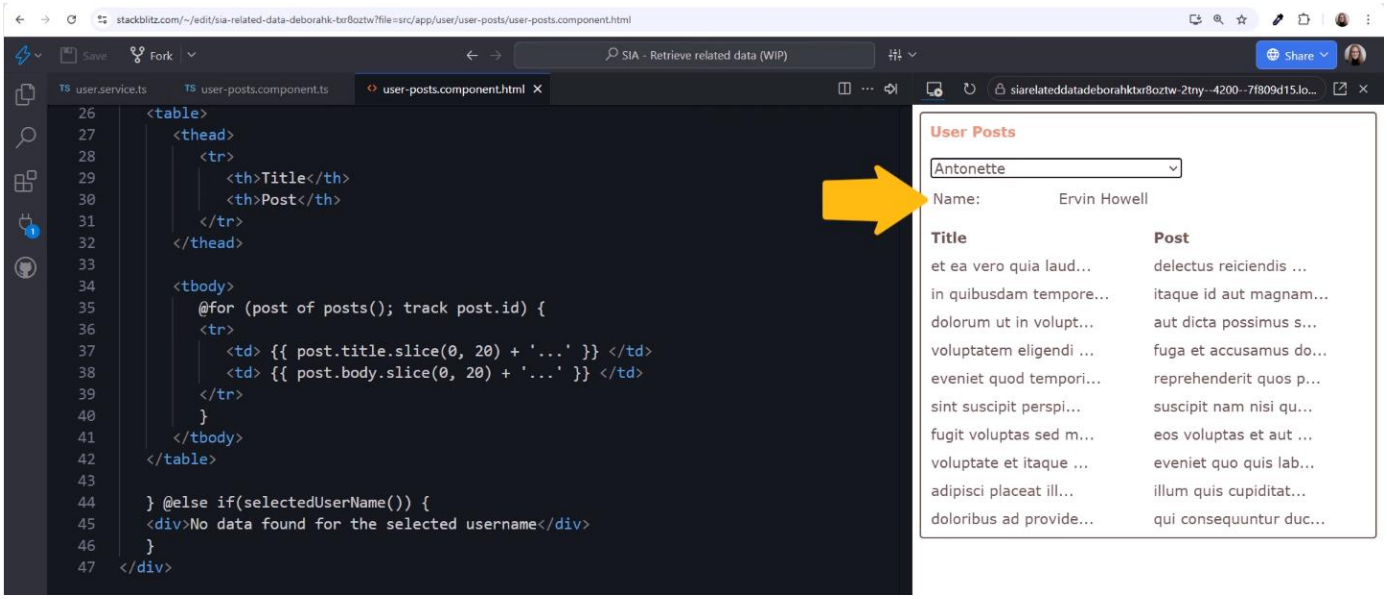

stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user-posts/user-posts.component.html
Save
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
siarelateddatadeborahktxr8oztw-2tny--4200--7f809d15.lo...
16
@let selectedUser = user();
@if (selectedUser) {

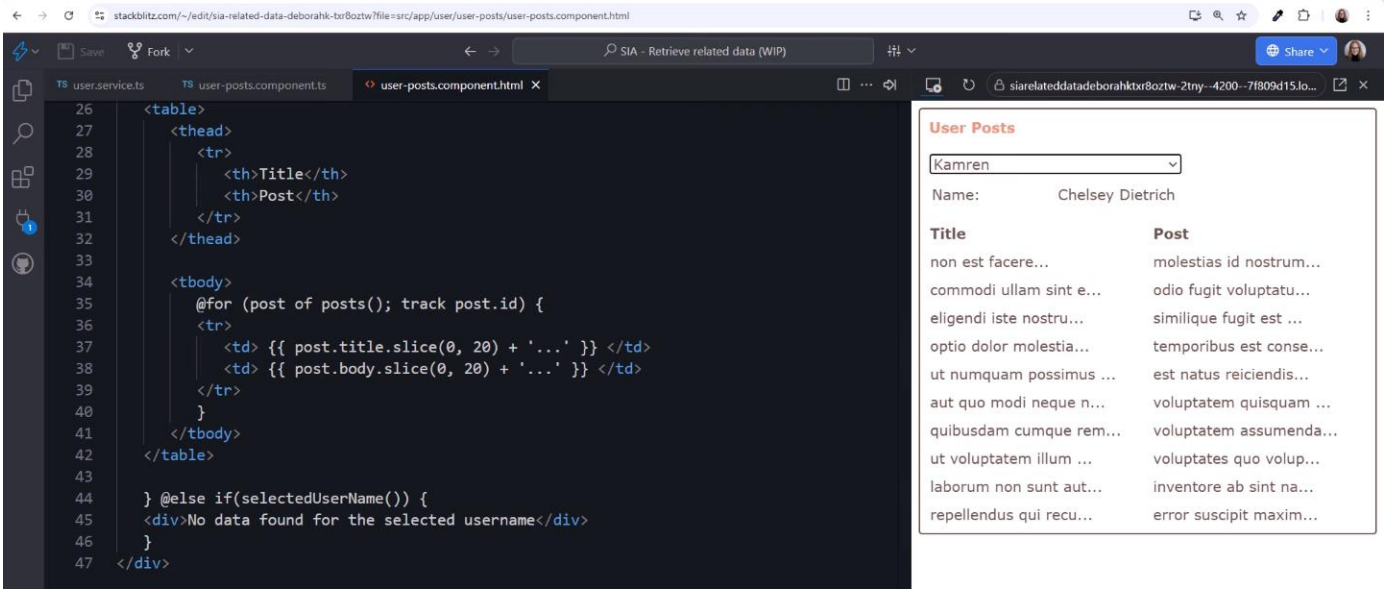
Name:
{{ selectedUser.name }}

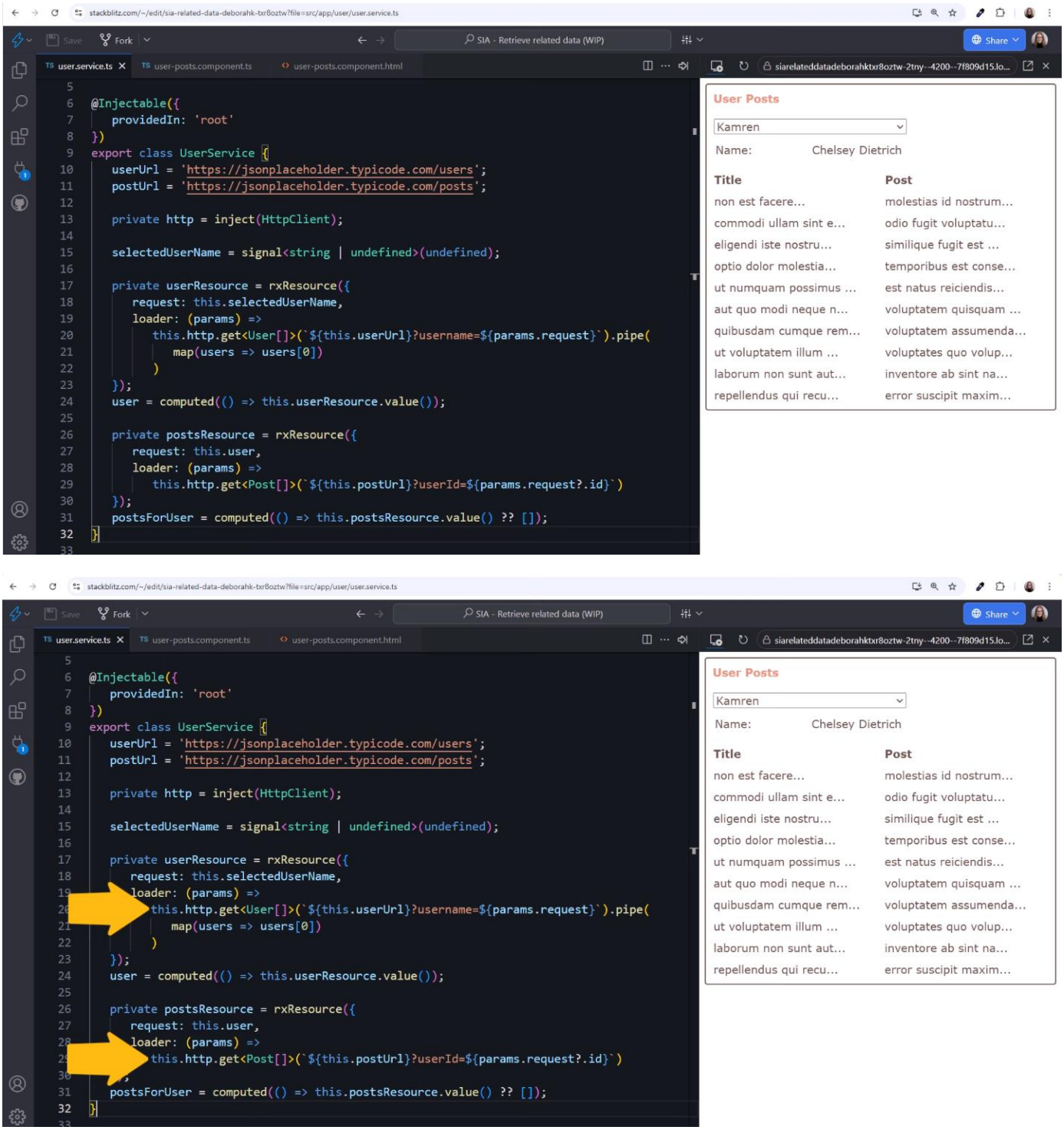
<table>
<thead>
<tr>
<th>Title</th>
<th>Post</th>
</tr>
</thead>
<tbody>
@for (post of posts(); track post.id) {
<tr>
<td> {{ post.title.slice(0, 20) + '...' }} </td>
<td> {{ post.body.slice(0, 20) + '...' }} </td>
</tr>
}
</tbody>
</table>
} @else if(selectedUserName()) {
User Posts
--Select a user name --


stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user-posts/user-posts.component.html
Save
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
siarelateddatadeborahktxr8oztw-2tny--4200--7f809d15.lo...
<table>
<thead>
<tr>
<th>Title</th>
<th>Post</th>
</tr>
</thead>
<tbody>
@for (post of posts(); track post.id) {
<tr>
<td> {{ post.title.slice(0, 20) + '...' }} </td>
<td> {{ post.body.slice(0, 20) + '...' }} </td>
</tr>
}
</tbody>
</table>
} @else if(selectedUserName()) {
No data found for the selected username
}

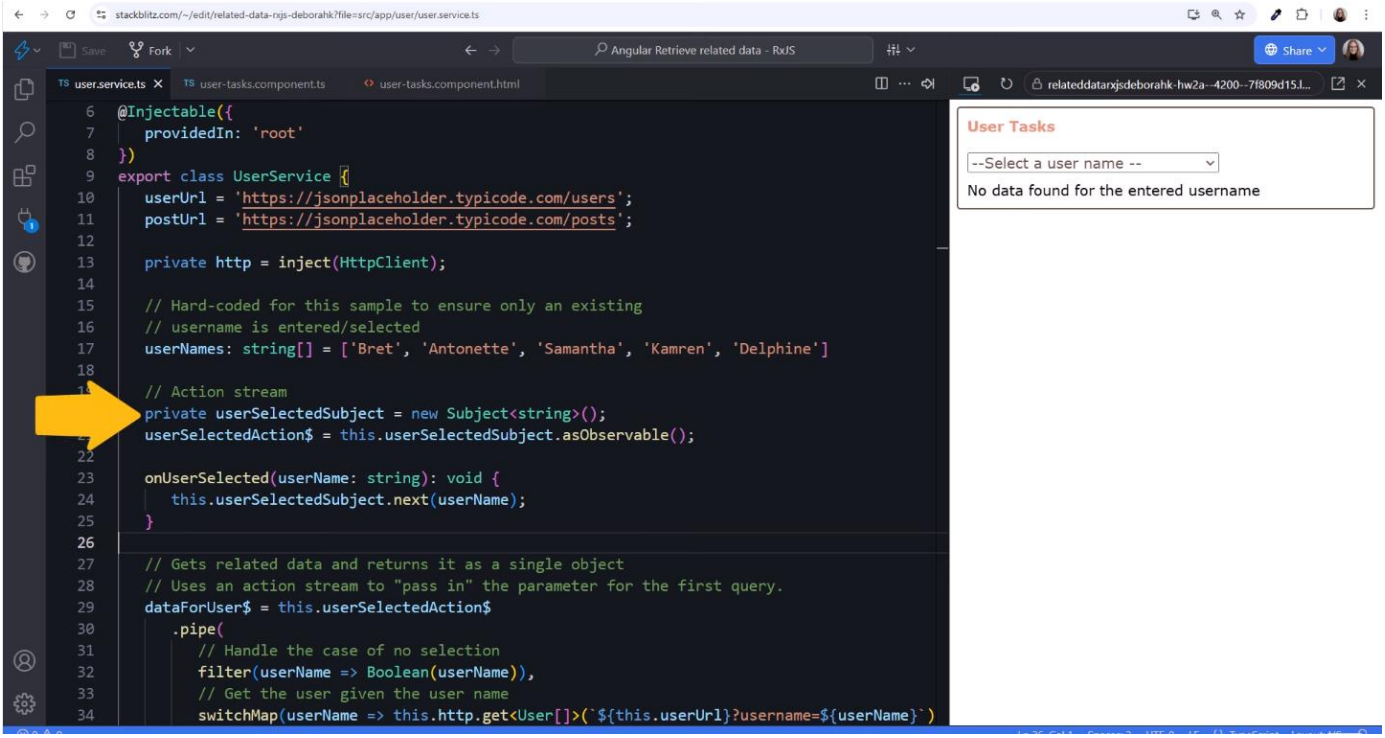
User Posts
--Select a user name --
--Select a user name --
Bret
Antonette
Samantha
Kamren
Delphine
NoData

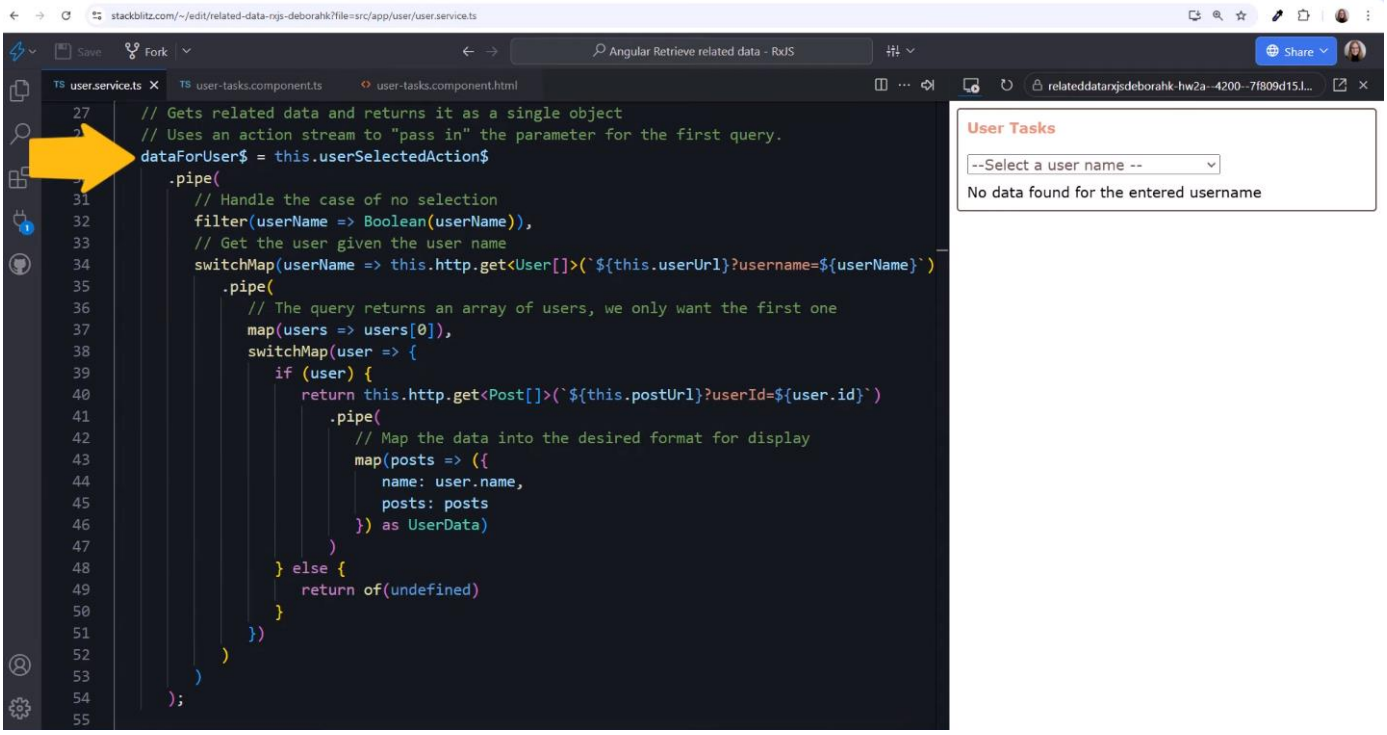

stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user-posts/user-posts.component.html
Save
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
siarelateddatadeborahktxr8oztw-2tny--4200--7f809d15.lo...
26 <table>
27 <thead>
28 <tr>
29 <th>Title</th>
30 <th>Post</th>
31 </tr>
32 </thead>
33
34 <tbody>
35 @for (post of posts(); track post.id) {
36 <tr>
37 <td> {{ post.title.slice(0, 20) + '...' }} </td>
38 <td> {{ post.body.slice(0, 20) + '...' }} </td>
39 </tr>
40 }
41 </tbody>
42 </table>
43
44 } @else if(selectedUserName()) {
45 No data found for the selected username
46 }
47
User Posts
Antonette
Name: Ervin Howell
Title
Post
et ea vero quia laud...
delectus reiciendis ...
in quibusdam tempore...
itaque id aut magnam...
dolorum ut in volupt...
aut dicta possimus s...
voluptatem eligendi ...
fuga et accusamus do...
eveniet quod tempori...
reprehenderit quos p...
sint suscipit perspi...
suscipit nam nisi qu...
fugit voluptas sed m...
eos voluptas et aut ...
voluptate et itaque ...
eveniet quo quis lab...
adipisci placeat ill...
illum quis cupiditat...
doloribus ad provide...
qui consequuntur duc...


stackblitz.com/~/edit/sia-related-data-deborahk-txr8oztw?file=src/app/user/user-posts/user-posts.component.html
Save
Fork
SIA - Retrieve related data (WIP)
Share
user.service.ts
user-posts.component.ts
user-posts.component.html
siarelateddatadeborahktxr8oztw-2tny--4200--7f809d15.lo...
26 <table>
27 <thead>
28 <tr>
29 <th>Title</th>
30 <th>Post</th>
31 </tr>
32 </thead>
33
34 <tbody>
35 @for (post of posts(); track post.id) {
36 <tr>
37 <td> {{ post.title.slice(0, 20) + '...' }} </td>
38 <td> {{ post.body.slice(0, 20) + '...' }} </td>
39 </tr>
40 }
41 </tbody>
42 </table>
43
44 } @else if(selectedUserName()) {
45 No data found for the selected username
46 }
47
User Posts
Kamren
Name: Chelsey Dietrich
Title
Post
non est facere...
molestias id nostrum...
commodi ullam sint e...
odio fugit voluptatu...
eligendi iste nostru...
similique fugit est ...
optio dolor molestia...
temporibus est conse...
ut numquam possimus ...
est natus reiciendis...
aut quo modi neque n...
voluptatem quisquam ...
quibusdam cumque rem...
voluptatem assumenda...
ut voluptatem illum ...
voluptates quo volup...
laborum non sunt aut...
inventore ab sint na...
repellendus qui recu...
error suscipit maxim...



These 2 HTTP requests are tied together through reactivity. We can also see what this code will look like without using the new Resource API as below





This is more complicated.