

Angular Interview Deep-Dive: Real-World Scenarios 💡

Today's technical discussion was a reminder that being a developer is more than syntax — it's about solving real-world problems with scalable, user-friendly solutions. Here are some interesting Angular-focused challenges we discussed:

1 Infinite Scrolling in Angular

Use `cdk-virtual-scroll-viewport` from Angular CDK.

Apply `debounce`/`throttle` with RxJS operators to avoid excessive API calls.

2 Search with Live Filtering

Implement with Reactive Forms + RxJS `debounceTime` to reduce API hits.

Manage state with `BehaviorSubject` or `NgRx` for scalable filtering.

3 Dynamic Form Fields

Use `FormArray` with Reactive Forms.

Validation handled with Angular's form validators. Controlled approach ensures data consistency.

4 Multi-Step Form State Management

Share state across steps using a service or `NgRx` store.

Each step validates independently before proceeding.

5 Real-Time Notification System

Implement via Angular services + RxJS Subjects.

Support multiple types (success, error, info) with Material `SnackBar` or custom toast components.

6 Drag-and-Drop File Upload

Leverage Angular CDK `DragDrop` or custom directive.

Validate type/size, track state (pending, uploading, success, error) in a service.

7 Reusable Data Table

Build with Angular Material Table + custom directives.

Support server-side pagination & filtering with query params.

8 Modal/Dialog System

Use Angular Material Dialog or custom overlay.

Manage focus & accessibility with Angular CDK a11y utilities.

9 Real-Time Chat Application


Use WebSockets with RxJS Subject.

Manage messages, user presence, and infinite scroll for history with cdk-virtual-scroll.

10 Virtualized Lists for Large Datasets

Again, Angular CDK's virtual-scroll helps render only visible items.

Handle dynamic heights with AutosizeVirtualScrollStrategy.

 Key Takeaway: Angular + RxJS + CDK provides powerful building blocks for scalable UI/UX, but it's the developer's design thinking that makes the real difference.