
****Updated Angular Frontend Prompts****

1. Prompt: Separation of Concerns (SRP)

****Goal:****

Analyze the `dashboard.component.ts` file to determine if it adheres to the SRP.

****Context:****

You are an Angular architecture review agent. A "lean" component should contain only UI logic and delegate business logic to services.

****Source Code to Analyze:****

```typescript

// src/app/features/dashboard/dashboard.component.ts

#### **Expectations:**

1. **Verdict:** `Pass` or `Fail`.
2. **Score (1-10):** Rate the component's adherence to SRP.
3. **Evidence:** Provide a code snippet that shows business logic being handled directly within the component (Fail).
4. **Suggestion:** If `Fail`, recommend refactoring the identified business logic into a dedicated service (e.g., `DashboardService`).

#### **\*\*2. Prompt: Naming Conventions\*\***

```markdown

****Goal:****

Audit the `dashboard` feature's file and symbol names for adherence to the official Angular style guide.

****Context:****

You are a code consistency agent. The Angular style guide prescribes specific naming conventions:

- File names must be lowercase and use kebab-case (e.g., `dashboard.component.ts`).
- Class and symbol names should follow the `[Feature].[Type]` pattern and use PascalCase with the correct suffix (e.g., `DashboardComponent`, `AuthGuard`).

****Source Code to Analyze:****

Please review the following file names and the class names within them:

- `src/app/features/dashboard/dashboard.component.ts`
- `src/app/features/dashboard/dashboard.component.html`
- `src/app/features/dashboard/dashboard.component.scss`
- `src/app/features/dashboard/dashboard.routes.ts`

****Expectations:****

1. ****Verdict:**** `Pass` or `Fail`.
2. ****Score (1-10):**** Rate the overall consistency of naming conventions.
3. ****Evidence:**** List any file or class names that violate the conventions.
4. ****Suggestion:**** Provide a specific list of files or classes that need to be renamed to conform to the style guide.

3. Prompt: Template Cleanliness (No Logic)

****Goal:****

Review the `dashboard.component.html` template to ensure it is purely declarative.

****Context:****

You are a template review agent. Angular templates should be simple and declarative.

****Source Code to Analyze:****

```html

// src/app/features/dashboard/dashboard.component.html

#### Expectations:

1. **Verdict:** `Pass` or `Fail`.
2. **Score (1-10):** Rate the cleanliness of the template.
3. **Evidence:** Quote a line from the template that contains complex logic.
4. **Suggestion:** If `Fail`, recommend moving the logic into a new method or property on the component's `.ts` file.

#### **\*\*4. Prompt: RxJS and Memory Management\*\***

```markdown

****Goal:****

Audit the `dashboard.component.ts` for potential memory leaks by checking

for unmanaged RxJS subscriptions.

****Context:****

You are a memory management agent. Manually subscribing to an Observable (`.subscribe(...)`) without a proper teardown mechanism (like `takeUntil`) is a common source of memory leaks. The best practice is to use the `async` pipe in the template.

****Source Code to Analyze:****

````typescript`

`// src/app/features/dashboard/dashboard.component.ts`

### Expectations:

1. **Verdict:** `Pass` or `Fail`.
2. **Score (1-10):** Rate the safety of the RxJS subscription handling.
3. **Evidence:** Provide a code snippet showing a `.subscribe()` call that is not properly unsubscribed in `ngOnDestroy`.
4. **Suggestion:** If a potential leak is found, recommend implementing the `takeUntil(this.destroy$)` pattern.

#### **\*\*5. Prompt: Immutability & Change Detection\*\***

````markdown`

****Goal:****

Verify that a presentational component from your `shared` folder uses `ChangeDetectionStrategy.OnPush` and treats data inputs as immutable.

****Context:****

You are a performance optimization agent. For better performance, presentational components (like a generic card or button) should use the `OnPush` change detection strategy. This requires that all `@Input()` data is treated as immutable.

****Source Code to Analyze:****

````typescript`

`// src/app/shared/components/card/card.component.ts`

### Expectations:

1. **Verdict:** `Pass` or `Fail`.

2. **Score (1-10):** Rate the implementation of `OnPush` and immutability.
3. **Evidence:** Quote the `@Component` decorator.
4. **Suggestion:** If not present, recommend adding `changeDetection: ChangeDetectionStrategy.OnPush` to the component decorator.

#### \*\*6. Prompt: Performance Optimizations (`trackBy`)\*\*

```markdown

Goal:

Check if the `dashboard.component.html` template uses the `trackBy` function for any `*ngFor` loops that iterate over lists of objects.

Context:

You are a DOM performance agent. When an array is modified, Angular re-renders the entire DOM list by default. Providing a `trackBy` function tells Angular how to track each item, which is a critical performance optimization for lists.

Source Code to Analyze:

```html

// src/app/features/dashboard/dashboard.component.html

### Expectations:

1. **Verdict:** `Pass` or `Fail`.
2. **Score (1-10):** Rate the usage of `trackBy`.
3. **Evidence:** Quote an `*ngFor` loop that is missing a `trackBy` function.
4. **Suggestion:** If `trackBy` is missing, provide a sample `trackBy` function for the `dashboard.component.ts` class and show how to add it to the `*ngFor` expression.

#### \*\*7. Prompt: TypeScript Type Safety\*\*

```markdown

Goal:

Audit the project's models and `tsconfig.json` to ensure strict type safety and avoidance of the `any` type.

Context:

You are a type safety agent. The `any` type disables TypeScript's static type checking. The project should have `strict: true` enabled in `tsconfig.json`, and all models should be strongly typed using interfaces.

****Source Code to Analyze:****

```typescript

// src/app/core/models/models.ts

// ALSO, Check tsconfig.json FILE.

### Expectations:

1. **Verdict:** `Pass` or `Fail`.
2. **Score (1-10):** Rate the overall type safety.
3. **Evidence:** Provide an example of `any` being used or point out if `strict` mode is disabled in `tsconfig.json`.
4. **Suggestion:** Recommend replacing `any` with a specific `interface` or `type`.

#### **\*\*8. Prompt: Code Structure & DRY\*\***

```markdown

****Goal:****

Analyze the project's folder structure and identify any duplicated code between the ``dashboard`` and ``payment`` features.

****Context:****

You are a code organization agent. A well-structured project groups files by feature. Duplicated logic (e.g., the same user data formatting in two different components) should be extracted into a reusable service or pipe in the ``shared`` folder.

****Source Code to Analyze:****

```typescript

// src/app/features/dashboard/dashboard.component.ts

// AND

// src/app/features/payment/payment.component.ts

### Expectations:

1. **Verdict:** `Pass` or `Fail`.
2. **Score (1-10):** Rate adherence to DRY principles.
3. **Evidence:** Provide examples of duplicated code blocks found in both files.
4. **Suggestion:** Recommend extracting the duplicated logic into a shared service or pipe.

#### \*\*9. Prompt: Function and Line Limits\*\*

```markdown

Goal:

Review the `payment.component.ts` file for functions that are excessively long, indicating they may have too many responsibilities.

Context:

You are a code readability agent. For maintainability, functions should be concise and focused (e.g., under 75 lines). Large functions should be broken down into smaller, private helper methods. A payment component often has complex logic that is a good candidate for this review.

Source Code to Analyze:

```typescript

// src/app/features/payment/payment.component.ts

### Expectations:

1. **Verdict:** Pass or Fail.
2. **Score (1-10):** Rate the conciseness of the code.
3. **Evidence:** Identify a function (e.g., a form submission handler) that is overly long and provide its line count.
4. **Suggestion:** Recommend specific logic to be extracted from the long function into smaller, well-named private methods.

#### \*\*10. Prompt: Dependency Injection Scope\*\*

```markdown

Goal:

Verify that services are provided at the correct scope, focusing on the `auth` feature.

Context:

You are a dependency injection agent. In modern Angular, services intended to be application-wide singletons should be decorated with `@Injectable({ providedIn: 'root' })`. This is tree-shakable and preferred over adding services to a module's `providers` array.

Source Code to Analyze:

```typescript

```
// src/app/features/auth/auth.service.ts
```

### Expectations:

1. **Verdict:** `Pass` or `Fail`.
2. **Score (1-10):** Rate the correctness of the service provider scoping.
3. **Evidence:** Quote the `@Injectable` decorator from the service class.
4. **Suggestion:** If the service is a singleton and not using `providedIn: 'root'`, recommend changing it.

### **\*\*10. Prompt: Agent mode Changes \*\***

can you do this changes and rerun the above prompt and check the scores

<!-- end list -->