Angular TS – Environment Configurations Dev and Prod

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Great! Let's move on to the next Angular Task:

**✅ Task: Environment Configurations (Prod and Dev)**

**📚 Chapter: Environment-Specific Setup in Angular 18**

**1. 🎯 Purpose**

To manage different settings for development and production environments (like API base URLs, debug flags, etc.) using Angular’s built-in environment configuration system.

**2. 📖 Theory**

Angular CLI provides an environment.ts file for development and an environment.prod.ts for production. During build time, Angular replaces the default environment.ts file with environment.prod.ts when using the --configuration=production flag.

This helps:

* Use different API endpoints
* Toggle features (debug, logging)
* Secure production settings

**3. 🧰 Prerequisites**

* Angular project initialized (standalone Angular 18)
* angular.json configured with file replacements

**4. 🛠️ Code Example (Step-by-Step)**

**✅ Step 1: Add environment.ts and environment.prod.ts**

📁 src/environments/environment.ts

export const environment = {

production: false,

apiBaseUrl: 'http://localhost:3000/api',

enableDebug: true

};

📁 src/environments/environment.prod.ts

export const environment = {

production: true,

apiBaseUrl: 'https://yourdomain.com/api',

enableDebug: false

};

**✅ Step 2: Update angular.json File Replacements**

Locate "fileReplacements" under projects -> architect -> build -> configurations -> production in angular.json and ensure this exists:

"fileReplacements": [

{

"replace": "src/environments/environment.ts",

"with": "src/environments/environment.prod.ts"

}

]

**✅ Step 3: Use Environment Variables in Code**

📄 app/student/student.service.ts (or any service)

import { Injectable } from '@angular/core';

import { HttpClient } from '@angular/common/http';

import { environment } from '../../environments/environment';

@Injectable({ providedIn: 'root' })

export class StudentService {

private apiUrl = environment.apiBaseUrl;

constructor(private http: HttpClient) {}

getStudents() {

return this.http.get(`${this.apiUrl}/students`);

}

}

**✅ Step 4: Build for Production**

To build using production configuration:

ng build --configuration=production

To serve production build locally:

ng serve --configuration=production

**5. 🧾 Project Structure Snapshot**

📁 src/

├── 📁 environments/

│ ├── environment.ts

│ └── environment.prod.ts

├── 📁 app/

│ └── student/

│ └── student.service.ts

└── angular.json

**6. 🧩 Summary**

* environment.ts handles dev-specific values.
* environment.prod.ts handles prod-specific values.
* Angular CLI replaces files automatically during build.
* Makes switching environments simple and organized.