The flow of an Angular (Angular 2+) project when you run it can be broken down into several key phases. Here's a simplified step-by-step explanation of what happens under the hood when you run an Angular application:

**🔧 1. Build & Serve Phase**

When you run:

ng serve

Angular CLI does the following:

* Compiles TypeScript to JavaScript using Webpack.
* Bundles all modules and dependencies.
* Watches for changes to rebuild on the fly.
* Starts a development server (typically at http://localhost:4200).

**⚙️ 2. Application Bootstrapping**

**In main.ts (entry point of the app):**

platformBrowserDynamic().bootstrapModule(AppModule);

This line bootstraps the **root module** (AppModule), which starts the Angular app.

**🧩 3. AppModule Initialization**

AppModule is loaded:

* Angular constructs a dependency injection tree.
* Loads services, pipes, and components declared in the module.
* Sets up the root component (AppComponent) to be rendered in the DOM element like <app-root>.

**🖼 4. Component Rendering**

* AppComponent is rendered first.
* The template and associated logic are processed.
* Child components are recursively created and rendered.

**🧠 5. Change Detection Cycle**

Angular sets up **Change Detection**:

* It keeps track of bindings and expressions.
* Runs periodically (e.g., after events, HTTP calls) to update the DOM when data changes.

**🔄 6. Routing (if configured)**

If using Angular Router:

* RouterModule checks the browser's URL.
* Loads the associated components for the active route (<router-outlet>).
* Handles navigation and lazy-loading (if set up).

**🌐 7. Service Calls (HTTP / APIs)**

When a component or service makes an API call:

* Angular uses HttpClient service.
* Calls are asynchronous and use Observables.
* Responses trigger UI updates via change detection.

**♻️ 8. Ongoing Updates**

* User interactions (clicks, inputs) trigger events.
* Data-binding ensures model updates the view, and vice versa (two-way binding).
* Angular’s zone.js watches these events to trigger change detection.

**📦 Summary Diagram (Simplified)**

main.ts --> AppModule --> AppComponent

↓

Angular Router (optional)

↓

Other Components + Services

↓

API calls / Data binding / Events

↓

Change Detection updates the DOM