Lecture 18: HttpClient & Interceptors

What is Angular HttpClient?

- A service in Angular for making HTTP requests to APIs

- Benefits:

  - Simplifies HTTP operations

  - Built-in support for observables

  - Handles JSON data by default

Key Features

- Modern HTTP Features:

    - GET, POST, PUT, DELETE requests

    - Query parameters and headers

    - Response type configuration

- Automatic JSON parsing
- Support for Interceptors

Setting up HttpClient

```
constructor(private http: HttpClient) {}

getData() {
   this.http.get('/api/data').subscribe(response => console.log(response))
}
```

What are Interceptors?

- Middleware for HTTP requests and responses in Angular

- Benefits:

  - Modify requests or responses globally

  - Add headers (e.g. authentication tokens)

  - Handle errors consistently

Creating Interceptors

```
export class AuthInterceptor implements HttpInterceptor {
  intercept(req: HttpRequest<any>, next: HttpHandler) {
    const cloned = req.clone({
      setHeaders: { Authorization: 'Bearer TOKEN' },
    });
    return next.handle(cloned);
  }
}
```

Registering Interceptors

```
@NgModule({
  providers: [
    { provide: HTTP_INTERCEPTORS, useClass: AuthInterceptor, multi: true },
  ],
})
export class AppModule {}
```

Error Handling

```
export class ErrorInterceptor implements HttpInterceptor {
  intercept(req: HttpRequest<any>, next: HttpHandler) {
    return next.handle(req).pipe(
      catchError((error: HttpErrorResponse) => {
        console.error('HTTP Error:', error);
        return throwError(() => new Error(error.message));
      })
    );
  }
}
```