## Using Spring Boot 3 with Spring Security 6

#### Migration and Clean up

- 1. Spring boot version 3.0.x and Java 17 or later
- 2. Change package name from javax to jakarta
- 3. Change the Hibernate dialect
- 4. Drop and create new database
- 5. Insert records in posts and comments table

## Adding Spring Security to Spring Boot and Exploring Spring Security Auto Configuration

#### Spring Security 6 with Spring Boot 3

- 1. Spring Security is a framework that provides authentication, authorization, and protection against common attacks. With first class support for securing both web and reactive applications, it is the de-facto standard for securing Spring-based applications.
- 2. Spring Boot provides a **spring-boot-starter-security** starter that aggregates Spring Security-related dependencies together.
- 3. Removed deprecated APIs/Classes/Annotations:
- WebSecurityConfigurerAdapter
- EnableGlobalMethodSecurity
- antMatchers
- authorizeRequests

#### Spring Boot Auto Configuration for Spring Security

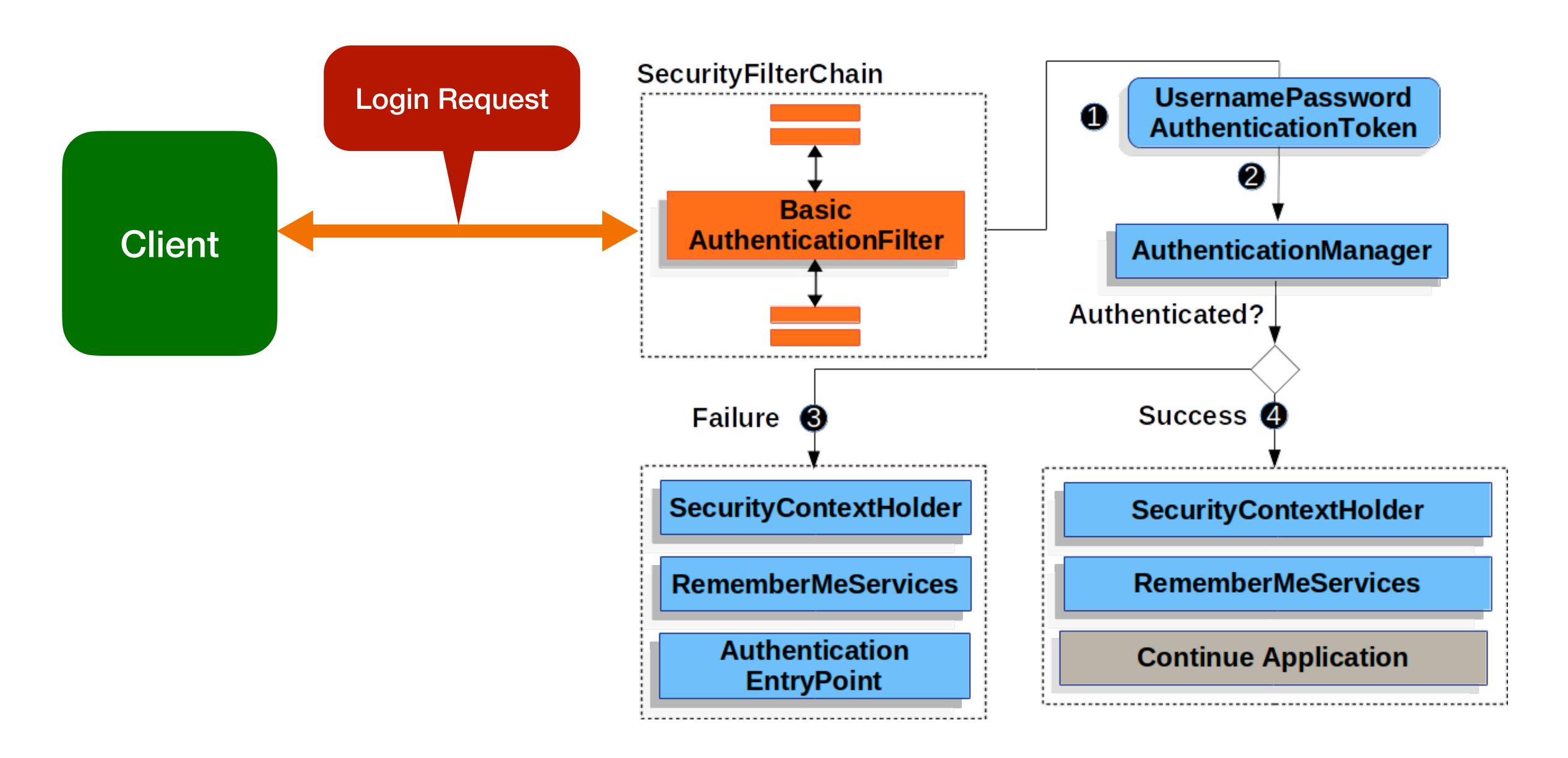
Spring Boot auto configures below features:

- spring-boot-starter-security starter that aggregates Spring Security-related dependencies together.
- Enables Spring Security's default configuration, which creates a servlet Filter as a bean named **springSecurityFilterChain**. Provides default login form for you.
- Creates default user with a username as **user** and a randomly generated password that is logged to the console (Ex: 8e557245-73e2-4286-969a-ff57fe326336).
- Spring boot provides properties to cusomize default user's username and password
- Protects the password storage with **BCrypt** algorithm
- Lets the user log out (default logout feature)
- CSRF attack prevention (enabled by default)
- If Spring Security is on the classpath, Spring Boot automatically secures all HTTP endpoints with "basic" authentication.

# Implementing Basic Authentication using Spring Security

## How Basic Authentication Works in Spring Security

#### How Basic Authentication Works



## Securing REST API's with In memory Authentication

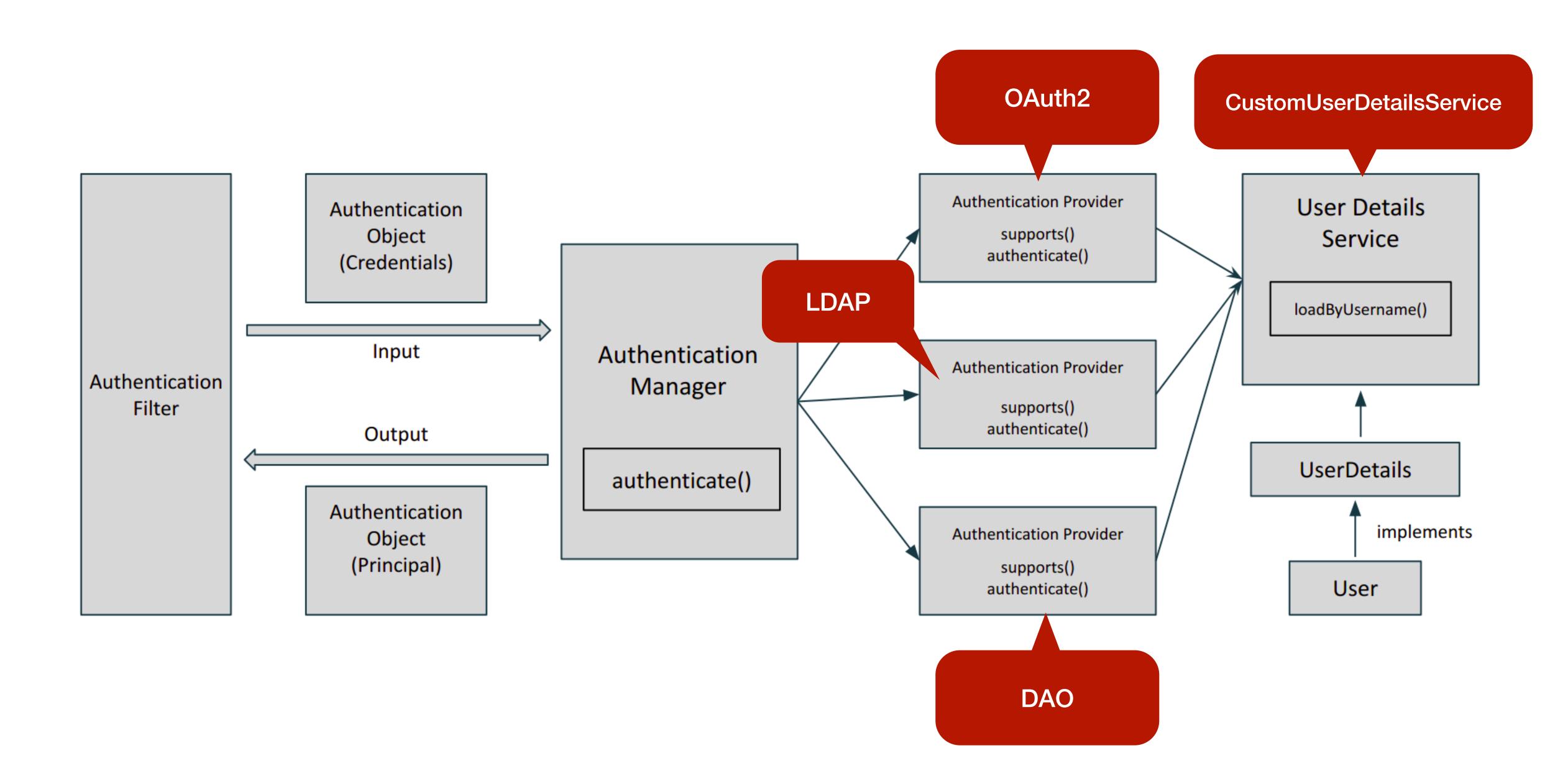
### Create JPA Entities User and Role (Many to Many Mapping)

## Creating JPA Repositories UserRepository and RoleRepository

# UserDetailsService Interface Implementation to Load User from Database

### How Spring Security Database Authentication Works

#### How Database Authentication Works



### Securing REST API's with Database Authentication