

# Project Lombok – One Page Cheat Sheet (Spring Boot)

## What is Lombok?

Reduces boilerplate Java code using annotations (compile-time).

## Core Annotations

- 1 @Getter – Generates getters
- 2 @Setter – Generates setters (avoid on entities)
- 3 @ToString – Generates toString() (exclude LAZY fields)
- 4 @EqualsAndHashCode – Generates equals/hashCode (use id only)
- 5 @Data – Combines all above (use ONLY for DTOs)

## Constructor Annotations

- 1 @NoArgsConstructor – Required for JPA
- 2 @AllArgsConstructor – Constructor with all fields
- 3 @RequiredArgsConstructor – For final/@NonNull fields (Best for DI)

## Logging

@Slf4j – Auto creates SLF4J logger

## Advanced

- 1 @Builder – Builder pattern
- 2 @Value – Immutable DTO
- 3 @NonNull – Null check
- 4 @SneakyThrows – Avoid checked exceptions (use carefully)
- 5 @Cleanup – Auto close resources

## Best Practices

- 1 ✓ Use @Getter, @RequiredArgsConstructor, @Slf4j
- 2 ■ Avoid @Data on JPA Entities
- 3 ✓ Use @Data freely on DTOs
- 4 ■ Avoid @Setter everywhere

## Golden Rule

Entities ≠ DTOs