

Spring Boot Annotations Cheat Sheet

Core Annotations

@SpringBootApplication: Combines **@Configuration**, **@EnableAutoConfiguration**, and **@ComponentScan**. Entry point of the app.

@ComponentScan: Scans packages for Spring components.

@Configuration: Marks class as source of bean definitions.

@Bean: Declares a bean to be managed by Spring container.

Web / REST

@RestController: Combines **@Controller** and **@ResponseBody**, used for RESTful APIs.

@GetMapping, **@PostMapping**, etc.: Shortcut for **@RequestMapping** with specific HTTP method.

@RequestParam: Binds request parameters to method arguments.

@PathVariable: Binds URI template variables to method arguments.

@RequestBody: Binds HTTP request body to a method parameter.

@ResponseBody: Binds return value to HTTP response body.

Dependency Injection

@Autowired: Injects dependency by type.

@Qualifier: Used with **@Autowired** to specify the bean to inject.

@Component: Generic stereotype for any Spring-managed component.

@Service: Marks a class as a service layer component.

@Repository: Marks a class as a data repository. Enables exception translation.

Persistence (Spring Data JPA)

@Entity: Marks a class as a JPA entity.

@Table: Specifies the table for the entity.

@Id: Specifies the primary key.

@GeneratedValue: Auto-generates ID values.

@Column: Maps a field to a column.

@Repository: Indicates data access component.

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Other Useful Annotations

@Value: Injects values from properties file.

@PropertySource: Loads properties file.

@EnableAutoConfiguration: Tells Spring Boot to auto-configure beans.

@EnableScheduling: Enables scheduled tasks.

@Scheduled: Schedules a method to run at fixed intervals.