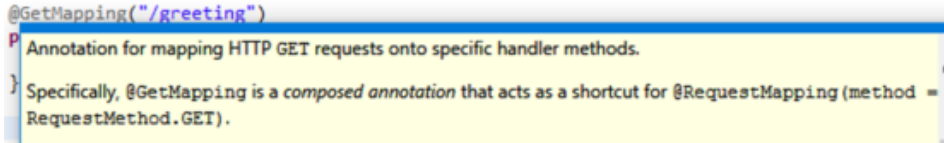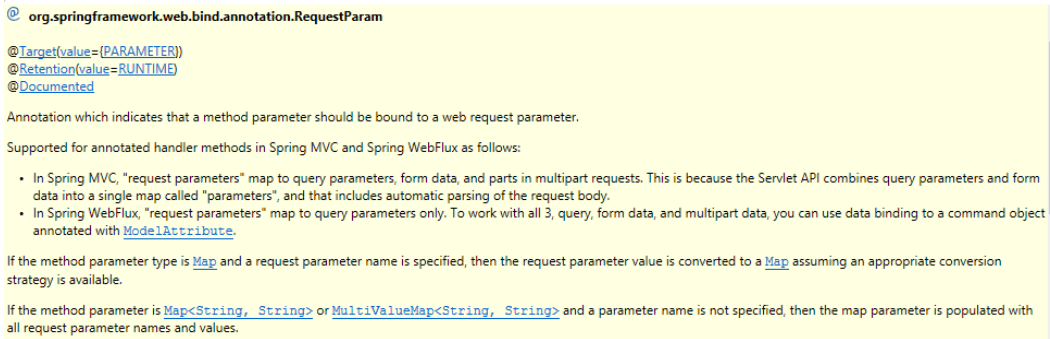# Appendix 01 Glossary

Description: This document contains a glossary of terminology commonly used through documents published for educational purposes in this folder.

Appendix: Glossary

Term	Definition
.gitgnore	This file is related to using Git Hub. This file tells Git which files to ignore when committing your project to the GitHub repository.
.md	MARKDOWN file extension. MD files are saved in plain text format that uses Markdown language which also includes inline text symbols, defining how a text can be formatted such as indentations, table formatting, fonts, and headers. MD files can be converted to HTML with a program called Markdown.
.mvn Folder	Containing the Maven wrapper files. Inside another subfolder "wrapper" is an executable jar file which will contain an Apache Tomcat server which Spring Boot application will run on. The Tomcat server inside the IDE will not be used in a Spring Boot application.
@Entity	The @Entity annotation specifies that the class is an entity and is mapped to a database table. The @Table annotation specifies the name of the database table to be used for mapping.
@GeneratedValue	Provides for the specification of generation strategies for the values of primary keys.
@GetMapping	Maps HTTP GET requests onto specific handler methods. @GetMapping("/greeting") Annotation for mapping HTTP GET requests onto specific handler methods. Specifically, @GetMapping is a *composed annotation* that acts as a shortcut for @RequestMapping(method = RequestMethod.GET).
@Id	Specifies the primary key of an entity.
@RequestParam	Spring annotation used to bind a web request parameter to a method parameter. @ org.springframework.web.bind.annotation.RequestParam @Target(value={PARAMETER}) @Retention(value=RUNTIME) @Documented Annotation which indicates that a method parameter should be bound to a web request parameter. Supported for annotated handler methods in Spring MVC and Spring WebFlux as follows: • In Spring MVC, "request parameters" map to query parameters, form data, and parts in multipart requests. This is because the Servlet API combines query parameters and form data into a single map called "parameters", and that includes automatic parsing of the request body. • In Spring WebFlux, "request parameters" map to query parameters only. To work with all 3, query, form data, and multipart data, you can use data binding to a command object annotated with ModelAttribute. If the method parameter type is Map and a request parameter name is specified, then the request parameter value is converted to a Map assuming an appropriate conversion strategy is available. If the method parameter is Map<String, String> or MultiValueMap<String, String> and a parameter name is not specified, then the map parameter is populated with all request parameter names and values.
@RestController	Used for making restful web services. This annotation is used at the class level and allows the class to handle the requests made by the client.

Term	Definition
	@RestController A convenience annotation that is itself annotated with @Controller and @ResponseBody. Types that carry this annotation are treated as controllers where @RequestMapping methods assume @ResponseBody semantics by default. NOTE: @RestController is processed if an appropriate HandlerMapping-HandlerAdapter pair is configured such as the RequestMappingHandlerMapping-RequestMappingHandlerAdapter pair which are the default in the MVC Java config and the MVC namespace.
API	An application programming interface is a connection between computers or between computer programs. It is a type of software interface, offering a service to other pieces of software.
application.properties	This file contains the different configuration which is required to run the application in a different environment, and each environment will have a different property defined by it. It can contain database related properties such as connection string, username, password, and other properties.
CRUD	Create, Read, Update, and Delete methods as it relates to data stored in a database.
Endpoint	An API endpoint is a point at which an API -- the code that allows two software programs to communicate with each other -- connects with the software program. APIs work by sending requests for information from a web application or web server and receiving a response.
H2 Database	Provides a fast in-memory database that supports JDBC API and R2DBC access, with a small (2mb) footprint. Supports embedded and server modes as well as a browser based console application.
H2 Database	Provides a fast in-memory database that supports JDBC API and R2DBC access, with a small (2mb) footprint. Supports embedded and server modes as well as a browser based console application.
HATEOAS	Hypermedia as the Engine of Application State. "Hypermedia as the Engine of Application State is a constraint of the REST application architecture that distinguishes it from other network application architectures. With HATEOAS, a client interacts with a network application whose application servers provide information dynamically through hypermedia." -- Wikipedia
IDE	Integrated Development Environment - is a software application that provides comprehensive facilities to computer programmers for software development. An IDE normally consists of at least a source code editor, build automation tools and a debugger.
JAR	Java ARchive. It's a file format based on the ZIP file format and is used for aggregating many files into one.
JDK	Java Development Kit - a distribution of Java Technology by Oracle Corporation. It implements the Java Language Specification and the Java Virtual Machine Specification and provides the Standard Edition of the Java Application Programming Interface.
JPA	Java Persistence API. "Jakarta Persistence is a Jakarta EE application programming interface specification that describes the management of relational data in enterprise Java applications." – Wikipedia "Spring Data JPA, part of the larger Spring Data family, makes it easy to easily implement JPA based repositories. This module deals with enhanced support for JPA based data access layers. It makes it easier to build Spring-powered applications that use data access technologies." -- Spring Data JPA

Term	Definition
Maven	Maven is a build automation tool used primarily for Java projects. Maven can also be used to build and manage projects written in C#, Ruby, Scala, and other languages. The Maven project is hosted by the Apache Software Foundation, where it was formerly part of the Jakarta Project.
MS	Microsoft Corporation is an American multinational technology corporation which produces computer software, consumer electronics, personal computers, and related services headquartered at the Microsoft Redmond campus located in Redmond, Washington, United States. -- Wikipedia
mvnw	This file is an executable Unix shell script used in place of a fully installed Maven. This calls the executable jar in the **.mvn\wrapper** folder.
mvnw.cmd	This file is for Windows environment. This calls the executable jar in the .mvn\wrapper folder.
O/S	Operating System - the software that supports a computer's basic functions, such as scheduling tasks, executing applications, and controlling peripherals.
POJOs	Plain Old Java Objects - In software engineering, a plain old Java object is an ordinary Java object, not bound by any special restriction. Wikipedia
pom.xml	A Project Object Model or POM is the fundamental unit of work in Maven. It is an XML file that contains information about the project and configuration details used by Maven to build the project. It contains default values for most projects.
Rest Repositories	Exposing Spring Data repositories over REST via Spring Data REST.
RESTful	"Representational state transfer is a software architectural style that describes a uniform interface between physically separate components, often across the Internet in a Client-Server architecture." – Wikipedia
RPC	Remote Procedure Call
Spring Boot	An open source, micro service-based Java web framework. The Spring Boot framework creates a fully production-ready environment that is completely configurable using its prebuilt code within its own codebase
Spring Data JPA	Persist data in SQL stores with Java Persistence API using Spring Data and Hibernate.
Spring HATEOAS	Spring HATEOAS provides some APIs to ease creating REST representations that follow the HATEOAS principle when working with Spring and especially Spring MVC. The core problem it tries to address is link creation and representation assembly. -- Spring HATEOAS
Spring Initializr	"Spring Initializr provides an extensible API to generate JVM-based projects, and to inspect the metadata used to generate projects, for instance to list the available dependencies and versions." -- Spring Initializr Reference Guide
STS	Spring Tool Suite
Zip File	ZIP is an archive file format that supports lossless data compression. A ZIP file may contain one or more files or directories that may have been compressed.