| **Learning Objectives** | * Build a REST API application using Java. * Complete a Spring project. * Build a feature that works well with testing. |
| --- | --- |
| **Assessment** | * **Project**: Complete the assessment criteria in the [project rubric.](https://docs.google.com/spreadsheets/d/1iWcpLhZWJiAGdgtLCKdkv4pF5f0GPPDOAPQZ48rka7w/edit?usp=sharing) |

| **Time** | **Activity** |
| --- | --- |
| (3 min) | **OPENING** |
| (3 hours 35 min) | **Project: Spring Boot Project**   * [To do Application](https://www.geeksforgeeks.org/how-to-create-todo-list-api-using-spring-boot-and-mysql/) |
| (20 min) | **DEBRIEF** |
| (2 min) | **CLOSING** |

| **OPENING (3 min)** |
| --- |

| **Activity Type** | Reading |
| --- | --- |
| **Framing Text** | Welcome to the course assessment for the Java & Spring Boot for Web Development module!  In this session, you will complete a project about creating a Todo list.  By the end of this session, you will be able to:   * Build a REST API application using Java. * Complete a Spring project. * Build a feature that works well. |
| **Assets** | * n/a |

| **Java Spring Boot MVC App (3 hours 45 min)** |
| --- |

| **Activity Type** | External Content |
| --- | --- |
| **Framing Text** | We will develop a step by step Spring MVC Todo management web application using Spring Boot, JPA and MySQL as a database. The following tutorial will walk you through how to create a REST API application from scratch.  Remember to review the [assessment requirements](https://docs.google.com/spreadsheets/d/1iWcpLhZWJiAGdgtLCKdkv4pF5f0GPPDOAPQZ48rka7w/edit?usp=sharing) to know how you will be graded on this project.  This will take you approximately **3 hours 35 min** to complete.  Part 1)  Complete the Spring MVC tutorial here:   * [To do Application](https://www.geeksforgeeks.org/how-to-create-todo-list-api-using-spring-boot-and-mysql/)   Part 2)  Select 1 feature to build   * **Finish Todo features:**   + Be able to perform CRUD operations, including add, update, remove and update tasks (completed). * **Exception handling:** Implement exception handling effectively in this Todo Application project   + Use [Spring Boot 2 Exception Handling for REST APIs](http://www.javaguides.net/2018/09/spring-boot-2-exception-handling-for-rest-apis.html) as a guide. * **Validation:** Implement validation effectively in this Todo Application project   + Use [Spring Boot CRUD REST APIs Validation Example](http://www.javaguides.net/2018/09/spring-boot-crud-rest-apis-validation-example.html) as a guide.   Happy coding!   | **Note**: Please reach out to instructors asking for help if you get stuck with this content. | | --- | |
| **Assets** | * [To do Application](https://www.geeksforgeeks.org/how-to-create-todo-list-api-using-spring-boot-and-mysql/) |

| **DEBRIEF (20 min)** |
| --- |

| **Activity Type** | Discussion Forum |
| --- | --- |
| **Framing Text** | Now that you have completed the assessment, you are ready to show your instructor and your peers what you made!  **Directions:**   * **Send** a link to your repository to your instructor. * **Post** a link to your Github pageto your peers. * **Share** your solutions to the question by posting in this discussion forum.   Once you have posted to the discussion forum, **take** time to review your fellow participants’ answers and **leave** a comment on at least one of them.  **Questions:**   * **What did you like about this project?** * **What did you struggle with in this project?** * **What would make your experience with this assessment better?** * **Which feature did you select to build and why?** |
| **Assets** | * n/a |

| **CLOSING (2 min)** |
| --- |

| **Activity Type:** | Reading |
| --- | --- |
| **Framing Text:** | Thank you for working through this Course Assessment session.  By now you should be able to:   * Build a REST API application using Java. * Complete a Spring project. * Build a feature that works well with testing.   In the next session, you will get back together synchronously with your instructor to debrief your learning experience.  We look forward to seeing you soon! |
| **Assets:** | * n/a |