

1. Spring Boot Exception Handling.
2. Create a custom exception class that extends the **RuntimeException** class. For example, you can create a **CustomerAlreadyExistsException** class and a **NoSuchCustomerExistsException** class
3. Create a **@ControllerAdvice** class to handle exceptions globally. This class should have methods annotated with **@ExceptionHandler** to handle specific exceptions.
4. Use the **@ResponseStatus** annotation to set the HTTP status code for the response.
5. Use the **ResponseEntityExceptionHandler** class to handle exceptions and return a custom error message.

2. Create a project to Consume a RESTful web service

1. Create an empty web API project.
2. Test the application.
3. Add a controller.
4. Add a model.
5. Create a list of employees.
6. Write the two methods.
7. Modify the WebApiConfig.cs file.
8. Test the API.

3. Create a project to upload and download a file in Spring Boot.

```
@RestController
public class FileController {

    @PostMapping("/upload")
    public String uploadFile(@RequestParam("file") MultipartFile file) {
        // Save the file to disk
        return "File uploaded successfully!";
    }

    @GetMapping("/download")
    public ResponseEntity<Resource> downloadFile() throws IOException {
        // Load the file from disk
        Path path = Paths.get("path/to/file");
        ByteArrayResource resource = new
        ByteArrayResource(Files.readAllBytes(path));

        // Return the file as a download
        return ResponseEntity.ok()
            .header(HttpHeaders.CONTENT_DISPOSITION, "attachment;
filename=\"\" + path.getFileName() + \"\"")
            .body(resource);
    }
}
```

4. Create a project to enable HTTPS and display in browser.

Here are the steps to follow:

1. Install **Node.js** and **npm** on your computer.
2. Open a terminal window and run the following command to install **Create React App**:
3. `npx create-react-app my-app`
4. Navigate to the project directory:
5. `cd my-app`
6. Start the development server with HTTPS enabled:
7. `set HTTPS=true&&npm start.`
8. Open your web browser and navigate to `https://localhost:3000` to view your project.