



NANYANG
TECHNOLOGICAL
UNIVERSITY
SINGAPORE

Module 3 - Project Brief

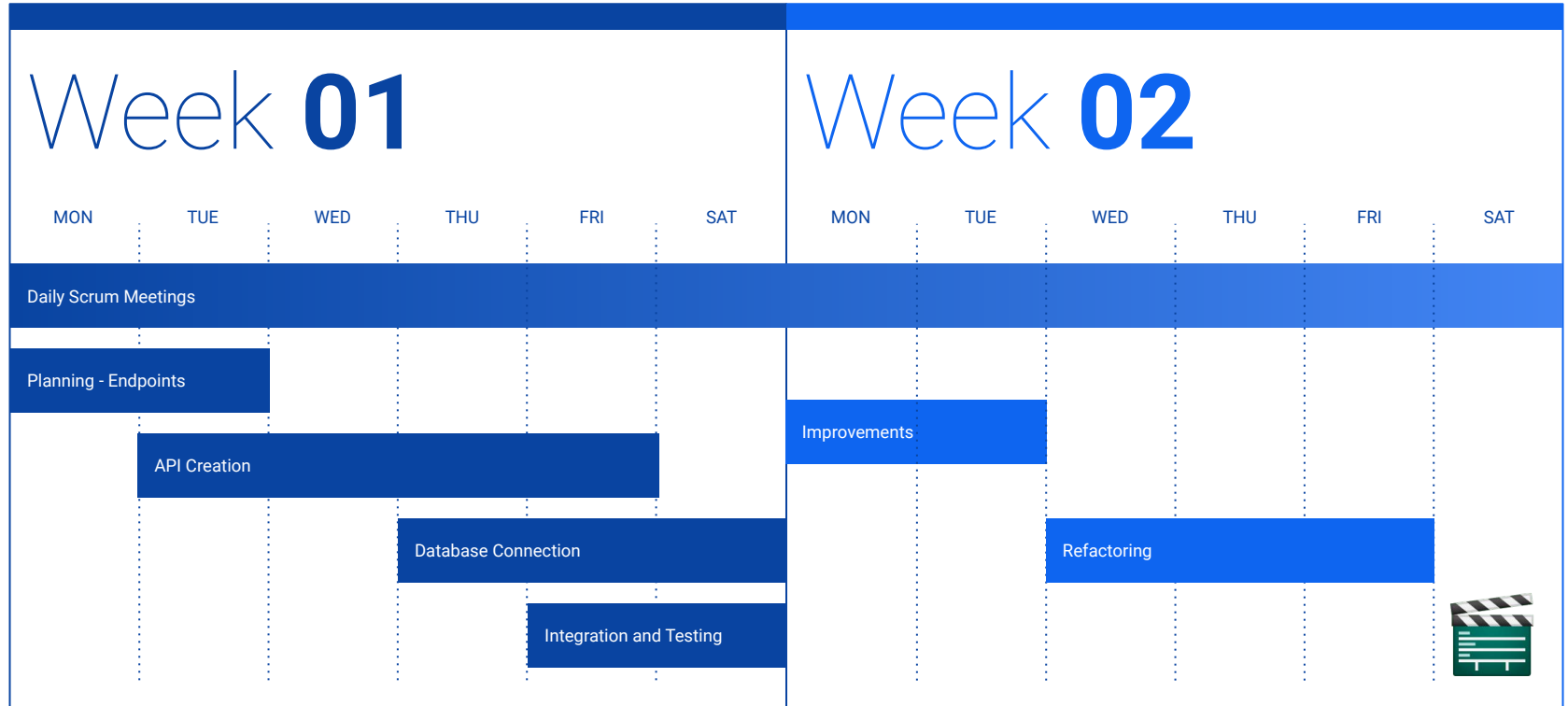
Project Specifications

- Create a Spring Boot REST API backend application connected to a H2 or PostgreSQL database.
- Use the concepts learned in the module to create the backend server
- Spring Boot REST API
- Dependency Injection
- Spring Data JPA with PostgreSQL
 - Many To One / One To Many Relationships
- Exception Handling
 - Global Exception Handler
 - Validation Exceptions
 - Custom Exceptions
 - General Exceptions
- Validation
- Logging of info and errors using SLF4J and Logback
- Testing
 - Unit Tests of Service Layer
 - Integration Test

Project Specifications

- For those who want to explore further, you can try:
 - Other relationships types such as One to One and Many to Many
 - Spring Security Basic Authentication (username/password) to protect endpoints
 - Sidenote: You can create experimental branches to try out new features so as not to break your main code
- A frontend client is optional; Postman can be used to demonstrate the endpoints.

Project Timeline (Proposed)



Scenario - Booking API

- ❖ The API will allow users to book seats based on the availability
- ❖ Users can create an account for booking purposes
- ❖ Users can view different events, as well as details of each event
- ❖ Users can choose a time and a seat of an event based on the availability
- ❖ Users can view their bookings and modify as needed

Scenario - Booking API

- ❖ Identify the endpoints
 - GET /users
 - GET /events
 - GET /event/:id
 - POST /users
 - DELETE /events
- ❖ Store the necessary information in the database
- ❖ Store the log files in separate files
- ❖ Implement validation as needed

Project Presentation



Agenda

1. Briefing
2. Group Presentations
3. Closing Remarks
4. Survey



Project Presentation Guidelines

Each Group would be given 15 minutes to present their project and the time will be divided as follows:

- 5 mins for the demonstration of the project
- 5 mins of learnings from each member of the group
- 5 mins QA and feedback from the class

Presentation Tips

Prepare your demonstration

- Test your application
- *Show*, don't tell.
- Imagine you are selling your product to prospective customers.
- Team members to show different functionalities of the application

Share Your Learning

- What challenges did you and your team face?
- How did you overcome these challenges?
- What can you improve on the project?