# Spring Boot Web and MVC

# Homework

# Recap

1. Spring Boot Web and MVC Architecture
2. Presentation Layer
3. Persistence Layer
4. Service Layer
5. Exception Handling in Spring Boot MVC
6. Input Validation Annotations

# Homework

1. Make a list of all the annotations we have seen so far in the Spring Web Framework.
2. Create the following REST endpoints for the following Entity

Department
- id
- title
-  isActive
-  createdAt

REST APIs:

GET: /departments
POST: /departments
PUT: /departments
DELETE: /departments
GET: /departments/{id}

# Homework

3. Write Exception Handling logic for the Department Entity.

4. Add the appropriate fields in the Department and Employee Entities so that the following validations can be added:
*@Null, @NotNull, @AssertTrue, @AssertFalse, @Min, @Max, @DecimalMin, @DecimalMax, @Negative, @NegativeOrZero, @Positive, @PositiveOrZero, @Size, @Digits, @Past, @PastOrPresent, @Future, @FutureOrPresent, @Pattern, @Email, @NotEmpty, @NotBlank, @Length, @Range, @CreditCardNumber, @URL*

# Homework

5. Create custom Annotation to handle a Prime number input
6. Create custom Annotation to check if the Password String field satisfies the following criteria:
    a. contains one uppercase letter
    b. contains one lowercase letter
    c. contains one special character
    d. minimum length is 10 characters