

Java Bootcamp – Day 23 – Lab 6 – Validation Checklist Creation

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Description:

Sehhaty is a healthcare system that focuses on managing health data. The validation checklist makes sure the data is accurate, secure, and follows rules. Key items to check include correct patient information, health measurements in normal ranges, data protection, and compliance with privacy laws. If not validated, it could lead to wrong diagnoses, incorrect treatments, or legal problems. The checklist helps keep the system reliable, meets regulations, and protects sensitive data.

Model 1: Patient (المريض)

Patient Model has: fullName, dateOfBirth, phoneNumber, nationalId, gender, insuranceNumber.

Validation:

- fullName:
 - Cannot be empty.
 - Must contain only Arabic letters and spaces.
 - Minimum length: 2 characters.
 - Cannot contain numbers or special characters.
 - @Size(min = 3, message = "Full Name must be more than 2 characters")
 - @NotEmpty(message = "Full Name cannot be empty")
 - @Pattern(regex = "^[\\u0621-\\u064A\\s]+\$", message = "Full Name must contain only Arabic letters and spaces.")
- dateOfBirth:
 - Cannot be empty.
 - Must be in the past.
 - Must be in this format (YYYY-MM-DD).
 - @NotNull(message = "Date of Birth cannot be empty")
 - @Past(message = "Date of Birth must be in the past")
 - @JsonFormat(pattern = "yyyy-MM-dd")
- phoneNumber:
 - Cannot be empty.
 - Must start with "05".
 - Must be exactly 10 digits.

- @NotEmpty(message = "Phone number cannot be empty")
 - @Pattern(regexp = "^05\\d{8}\$", message = "Phone number must start with '05' and consist of exactly 10 digits")
- nationalID:
 - Cannot be empty.
 - Must be exactly 10 digits.
 - Must be unique.
 - @NotEmpty(message = "National ID cannot be empty")
 - @Pattern(regexp = "\\d{10}\$", message = "National ID must be exactly 10 digits.")
- gender:
 - Cannot be empty.
 - Must be 'انثى' or 'ذكر'.
 - @NotEmpty(message = "Gender cannot be empty")
 - @Pattern(regexp = "^(انثى|ذكر)\$", message = "Gender must be 'انثى' or 'ذكر'")
- insuranceNumber:
 - Must be alphanumeric and exactly 15 characters.
 - @Pattern(regexp = "[a-zA-Z0-9]{1,15}\$", message = "Insurance Number must be alphanumeric and up to 15 characters")

Model 2: Appointment (موعد)

Appointment Model has: appointmentDate, appointmentTime, doctorID, patientID and purposeOfVisit.

Validation:

- appointmentDate:
 - Cannot be empty.
 - Must be in the future.
 - Must be in this format (YYYY-MM-DD)
 - @NotNull(message = "Appointment Date cannot be empty")
 - @Future(message = "Appointment Date must be in the future")
 - @JsonFormat(pattern = "yyyy-MM-dd")
- appointmentTime
 - Cannot be empty.
 - Must be in this format (HH:MM).
 - @NotNull(message = "Appointment Time cannot be empty")
 - @Pattern(regexp = "^(\\d{2}[0-3]):[0-5]\\d\$", message = "Appointment Time must be in HH:mm format and valid")
- doctorId:
 - Cannot be empty.
 - Must be valid number.
 - @NotEmpty(message = "Doctor ID cannot be empty")
 - @Pattern(regexp = "[0-9]*\$", message = "Doctor ID must be valid number")
- patientID:
 - Cannot be empty.

- Must be valid number.
- @NotEmpty(message = "Patient ID cannot be empty")
- @Pattern(regex = "[0-9]*", message = "Patient ID must be valid number")
- purposeOfVisit:
 - Cannot be empty.
 - Must be up to 250 characters maximum.
 - Must contain only Arabic letters and spaces.
 - @NotEmpty(message = "Purpose of Visit cannot be empty")
 - @Size(min = 2, max = 250, message = "Purpose of Visit must be up to 250 characters maximum")
 - @Pattern(regex = "[\u0621-\u064A\s]+", message = "Purpose of Visit must contain only Arabic letters and spaces")

Model 3: MedicalRecord (السجل الطبي)

MedicalRecord Model has: recordId, patientId, diagnosis, medications and treatmentDate.

Validation:

- recordId:
 - Cannot be empty.
 - Must be valid number.
 - @NotEmpty(message = "Record ID cannot be empty")
 - @Pattern(regex = "[0-9]*", message = "Record ID must be valid number")
- patientId:
 - Cannot be empty.
 - Must be valid number.
 - @NotEmpty(message = "Doctor ID cannot be empty")
 - @Pattern(regex = "[0-9]*", message = "Doctor ID must be valid number")
- diagnosis:
 - Cannot be empty.
 - Must be up to 500 characters maximum.
 - Must contain only Arabic letters and spaces.
 - @NotEmpty(message = "Diagnosis cannot be empty")
 - @Size(min = 2, max = 500, message = "Diagnosis must be up to 500 characters maximum")
 - @Pattern(regex = "[\u0621-\u064A\s]+", message = "Diagnosis must contain only Arabic letters and spaces.")
- medications:
 - Cannot be empty.
 - Must be up to 200 characters maximum.
 - @NotEmpty(message = "Medications cannot be empty")
 - @Size(min = 2, max = 200, message = "Medications must be up to 200 characters maximum")
- treatmentDate:
 - Cannot be empty.
 - Must be in the past.

- Must be in this format (YYYY-MM-DD).
- `@NotNull(message = "Treatment Date cannot be empty")`
- `@Past(message = "Treatment Date must be in the past")`
- `@JsonFormat(pattern = "yyyy-MM-dd")`