DATE: 24 July 25

DAY: Thursday, Day: #4

AGENDA (If Any):

- Code
- Videos

CONCEPT 1:

✿ @Data – from Project Lombok

When you slap @Data on a class, you're telling Lombok:

"Hey, I'm lazy. Generate all the usual boilerplate junk I'd otherwise be forced to write manually."

It **automatically generates**:

1. @Getter – for **all fields**
2. @Setter – for **all non-final fields**
3. @ToString() – includes all fields in the toString() output
4. @EqualsAndHashCode() – based on all fields (careful with JPA!)
5. @RequiredArgsConstructor() – constructor for final fields and fields marked @NonNull

Lombok + JPA: Using @Data is convenient, but **JPA prefers explicit equals()/hashCode() and toString() to avoid lazy-loading** landmines.

BUT in JPA land...

Why people caution against @Data in entities:

- @ToString() might trigger lazy-loaded relations (e.g., endless recursion or LazyInitializationException)
- @EqualsAndHashCode() might cause *weird behavior* with proxy classes and IDs not yet assigned (especially if used before @Id is populated)

CONCEPT 2:

CONCEPT 3: