

MongoRepository<T, ID> - Explanation

What is T?

T is a generic type parameter that represents the Entity (Document) class you're working with.

Explanation of MongoRepository:

MongoRepository<T, ID> is an interface provided by Spring Data MongoDB.

- T: Type of the document (your model class)
- ID: Type of the primary key (usually ObjectId for MongoDB)

Example from your project:

```
public interface BatchEntryRepository extends MongoRepository<BatchEntry, ObjectId>
```

Here:

- T = BatchEntry (your document)
- ID = ObjectId (MongoDB default _id type)

What it enables:

Because of MongoRepository<BatchEntry, ObjectId>, you can use:

- findById(ObjectId id)
- save(BatchEntry entity)
- deleteById(ObjectId id)

- findAll()

...and many more without writing their implementation.

Why use T?

Generics like T allow code reuse for any type of entity. Spring only needs to write MongoRepository once, and it works for all document classes.

Extra Tip:

You can also write custom finder methods like:

```
List<BatchEntry> findByName(String name);
```