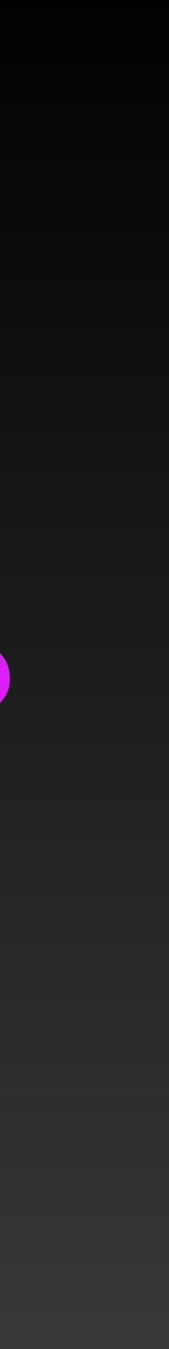


Thomas Rothenbacher 27.03.2024

Generated Code

What are this simple tasks?



Of course I used ChatGPT to generate the code

1:1 Mapping

public class CarEntity {

- 2 usages
- private int year;
- 2 usages
- private String brand;
- 2 usages
- private double price;
- 2 usages
- private String modelNumber;

public class CarDomain {

2 usages

private int year;

2 usages

private String brand;

2 usages

private double price;

2 usages

private String modelNumber;

Lets write the test

```
public class CarMapperTest {
```

@Test

public void testMapToDomain() { // Create a sample CarEntity object CarEntity entity = new CarEntity(); entity.setYear(2022); entity.setBrand("Toyota"); entity.setPrice(25000.0); entity.setModelNumber("Camry");

> // Instantiate the CarMapper CarMapper mapper = new CarMapper();

// Map the CarEntity to a CarDomain object CarDomain domain = mapper.mapToDomain(entity);

```
// Verify that the mapping was done correctly
assertNotNull(domain);
assertEquals(entity.getYear(), domain.getYear());
assertEquals(entity.getBrand(), domain.getBrand());
assertEquals(entity.getPrice(), domain.getPrice(), 0.001);
assertEquals(entity.getModelNumber(), domain.getModelNumber());
```

```
@Test
public void testMapToDomainWithNullEntity() {
   // Instantiate the CarMapper
   CarMapper mapper = new CarMapper();
    // Map a null CarEntity to a CarDomain object
   CarDomain domain = mapper.mapToDomain(null);
    // Verify that the result is null
    assertNull(domain);
}
@Test
public void testMapToEntity() {
    // Create a sample CarDomain object
   CarDomain domain = new CarDomain();
    domain.setYear(2022);
    domain.setBrand("Toyota");
    domain.setPrice(25000.0);
    domain.setModelNumber("Camry");
   // Instantiate the CarMapper
   CarMapper mapper = new CarMapper();
    // Map the CarDomain to a CarEntity object
   CarEntity entity = mapper.mapToEntity(domain);
    // Verify that the mapping \downarrow ; done correctly
    assertNotNull(entity);
```

So lets write the code Java... so of course it is not null safe

public class CarMapper {

}

// Method to map from Car entity to Car domain object public CarDomain mapToDomain(CarEntity entity) { CarDomain domain = new CarDomain(); domain.setYear(entity.getYear()); domain.setBrand(entity.getBrand()); domain.setPrice(entity.getPrice()); domain.setModelNumber(entity.getModelNumber()); return domain;

// Method to map from Car domain object to Car entity public CarEntity mapToEntity(CarDomain domain) { CarEntity entity = new CarEntity(); entity.setYear(domain.getYear()); entity.setBrand(domain.getBrand()); entity.setPrice(domain.getPrice()); entity.setModelNumber(domain.getModelNumber()); return entity;

So lets fix the code I asked ChatGPT to make it null safe

public class CarMapper {

// Method to map from Car entity to Car domain object public CarDomain mapToDomain(CarEntity entity) { if (entity == null) { return null;

}

CarDomain domain = new CarDomain(); domain.setYear(entity.getYear()); domain.setBrand(entity.getBrand()); domain.setPrice(entity.getPrice()); domain.setModelNumber(entity.getModelNumber()); return domain;

}

// Method to map from Car domain object to Car entity public CarEntity mapToEntity(CarDomain domain) { if (domain == null) { return null; } CarEntity entity = new CarEntity(); entity.setYear(domain.getYear()); entity.setBrand(domain.getBrand()); entity.setPrice(domain.getPrice()); entity.setModelNumber(domain.getModelNumber());

return entity;



Mapstruct Mapper The Interface

import org.mapstruct.Mapper; import org.mapstruct.Mapping; import org.mapstruct.factory.Mappers;

@Mapper

}

public interface CarMapper {

<u> </u>				
@Mappin	g(targ	jet	=	"model
@Mappin	g(targ	jet	=	"price
@Mappin	g(targ	jet	=	"brand
@Mappin	g(targ	jet	=	"year"

CarEntity	mapToE	Int	ity(Ca:
@Mapping(t	target	=	"model
@Mapping(t	target	=	"price
@Mapping(t	target	=	"brand
@Mapping(t	target	=	"year"

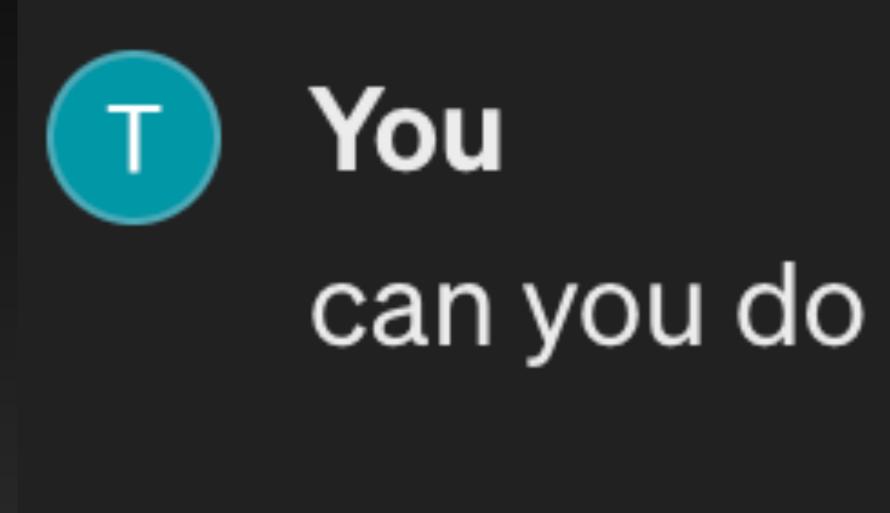
CarMapper INSTANCE = Mappers.getMapper(CarMapper.class);

```
source = "entity.year")
  source = "entity.brand")
  source = "entity.price")
Number", source = "entity.modelNumber")
```

```
CarDomain mapToDomain(CarEntity entity);
```

```
source = "domain.year")
  source = "domain.brand")
 , source = "domain.price")
Number", source = "domain.modelNumber")
rDomain domain);
```

The power of a Prompt Developer



can you do it with less code

Mapstruct Mapper The Interface

import org.mapstruct.Mapper;

@Mapper
public interface CarMapper {

CarDomain mapToDomain(CarEntity entity);

CarEntity mapToEntity(CarDomain domain);

Mapstruct Mapper The Class

@Generated(

```
value = "org.mapstruct.ap.MappingProcessor",
date = "2024-03-26T17:09:36+0100",
```

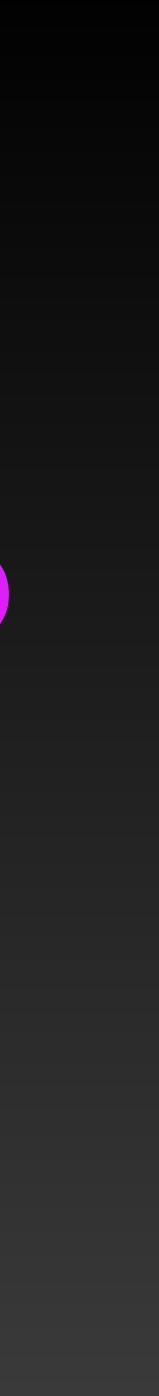
public class CarMapperImpl implements CarMapper {

```
no usages
@Override
public CarDomain mapToDomain(CarEntity entity) {
   if ( entity == null ) {
        return null;
   CarDomain carDomain = new CarDomain();
   carDomain.setYear( entity.getYear() );
   carDomain.setBrand( entity.getBrand() );
   carDomain.setPrice( entity.getPrice() );
   carDomain.setModelNumber( entity.getModelNumber() );
   return carDomain;
```

comments = "version: 1.5.5.Final, compiler: javac, environment: Java 17.0.9 (Eclipse Adoptium)"

```
no usages
@Override
public CarEntity mapToEntity(CarDomain domain) {
   if ( domain == null ) {
        return null;
    CarEntity carEntity = new CarEntity();
    carEntity.setYear( domain.getYear() );
    carEntity.setBrand( domain.getBrand() );
    carEntity.setPrice( domain.getPrice() );
    carEntity.setModelNumber( domain.getModelNumber() );
   return carEntity;
}
```







Automate simple



Conclusion



Thank you!



Any Questions?

Contact and Sources

- <u>https://github.com/trothenbacher</u>
- <u>https://www.xing.com/profile/Thomas_Rothenbacher</u>

• Sources:

- https://mapstruct.org/
- https://chat.openai.com/