Spring Data JPA in Spring Boot

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- Version 1: Use EntityManager but leverage native Hibernate API
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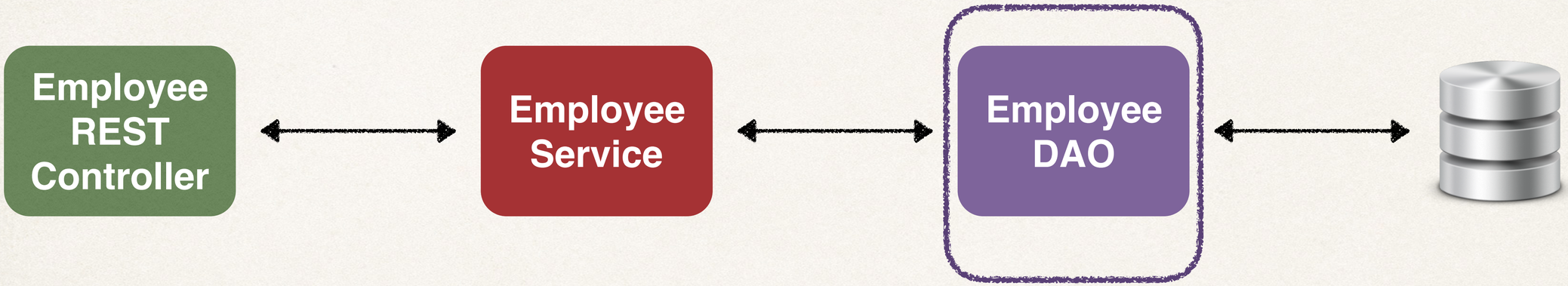
- Version 3: Spring Data JPA

Application Architecture



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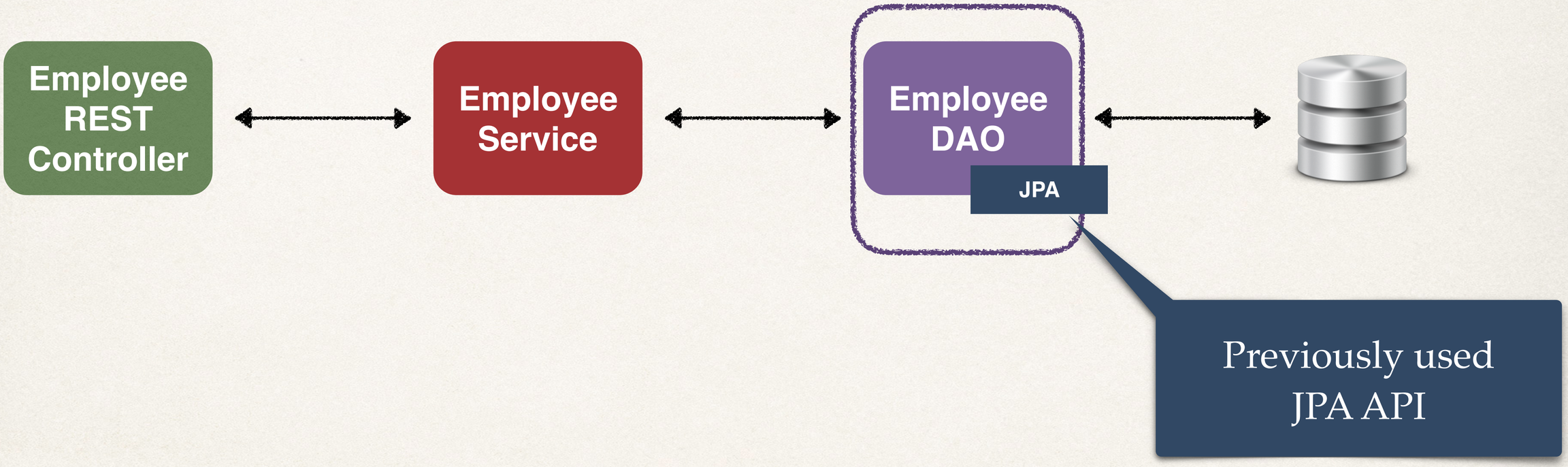

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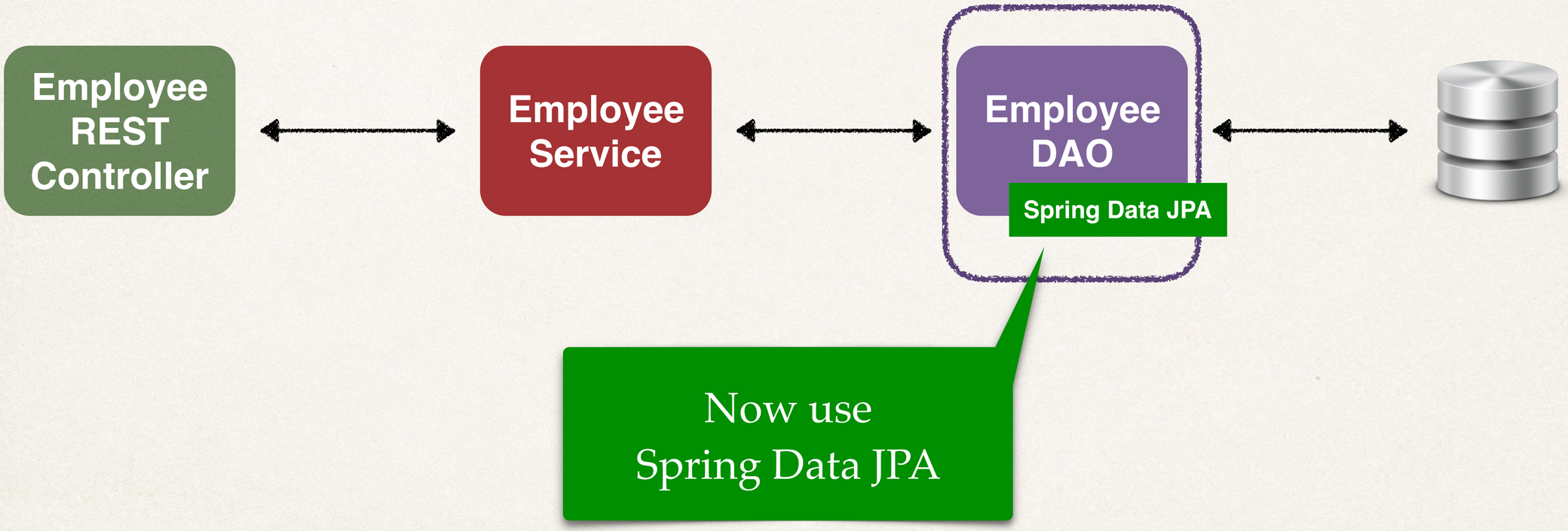

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- What if we need to create a DAO for another entity?
  - **`Customer`**, **`Student`**, **`Product`**, **`Book`** ...
- Do we have to repeat all of the same code again???

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My Wish

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- I wish we could tell Spring:

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Create a DAO for me

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Plug in my entity type and primary key

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Give me all of the basic CRUD features for free

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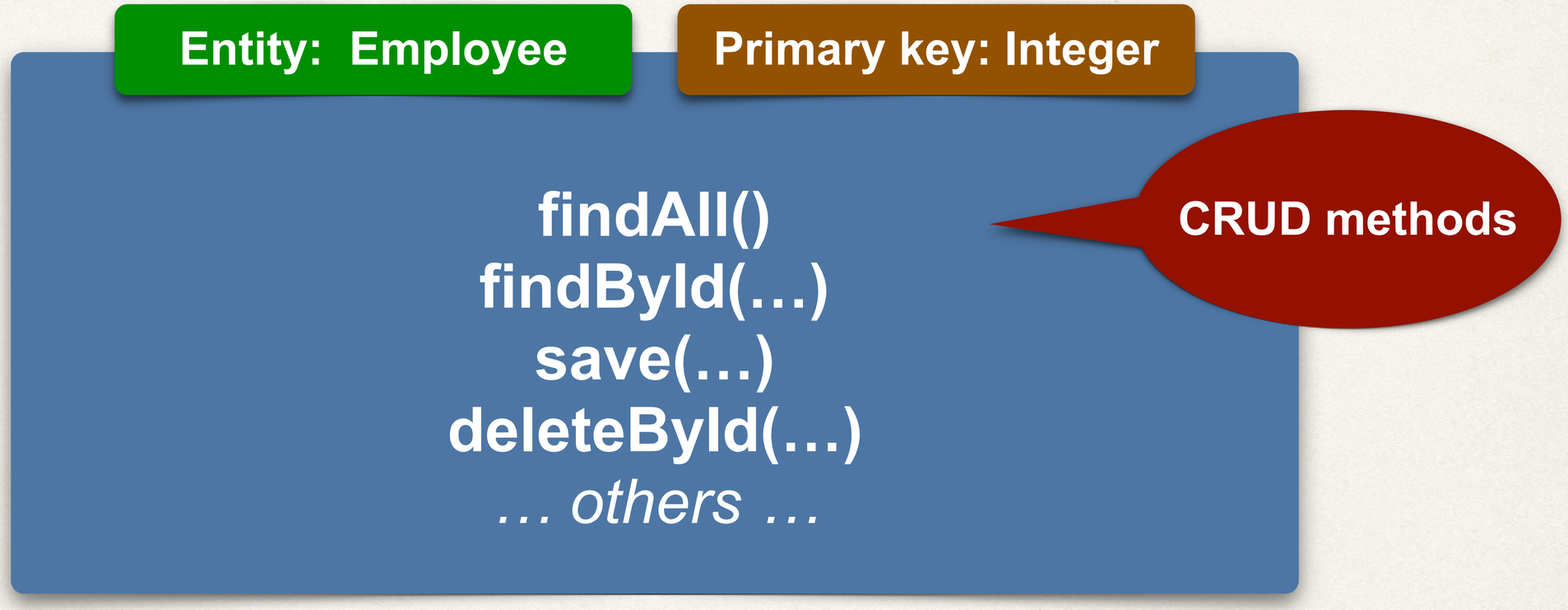

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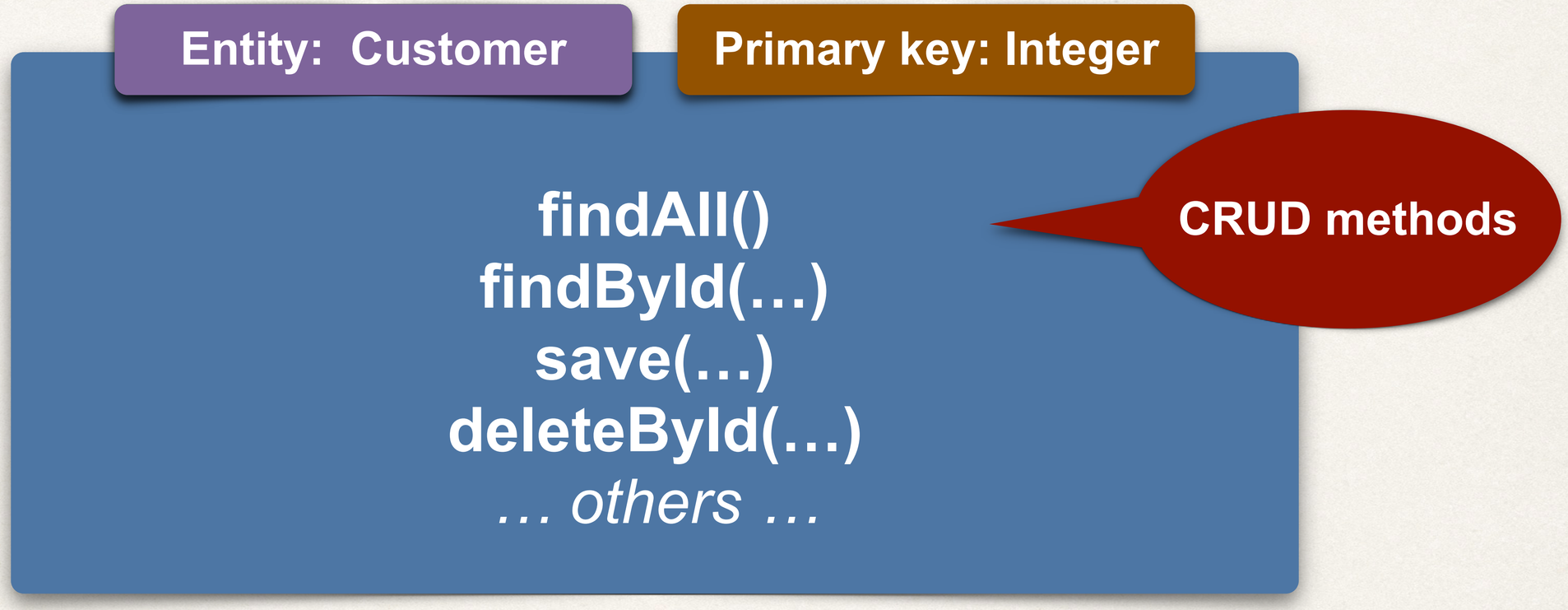

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More than 70% reduction in code … depending on use case

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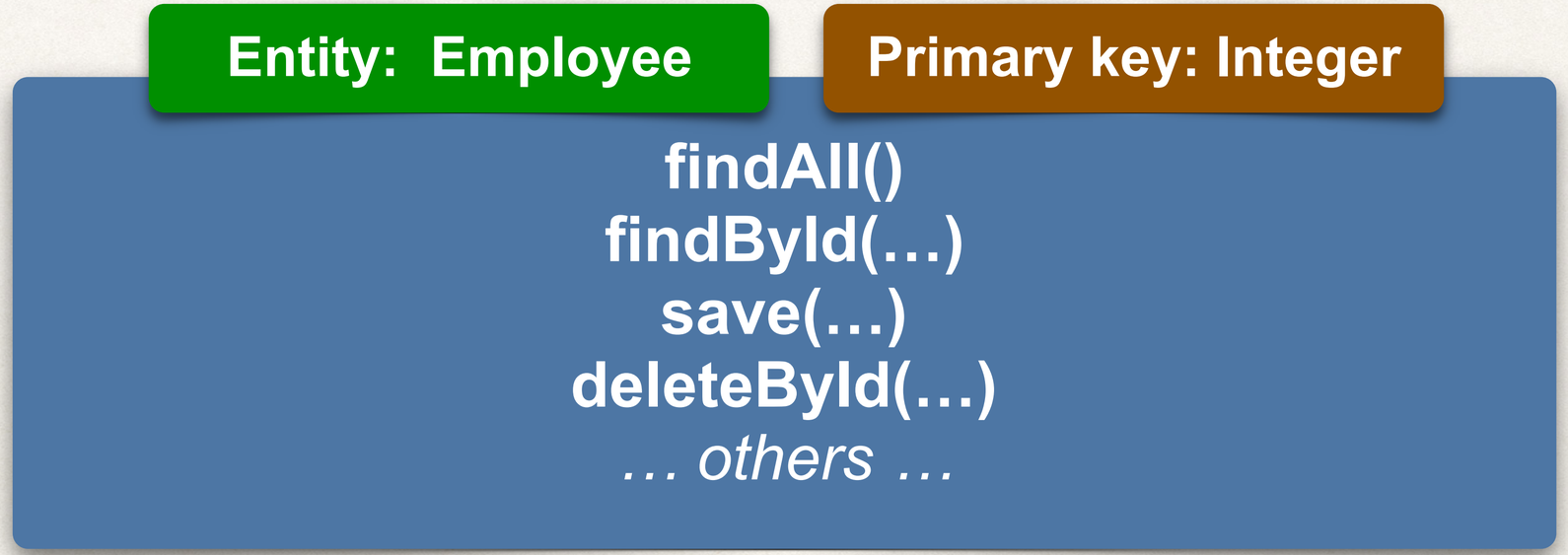

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Step-By-Step

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2. Use your Repository in your app

No need for implementation class

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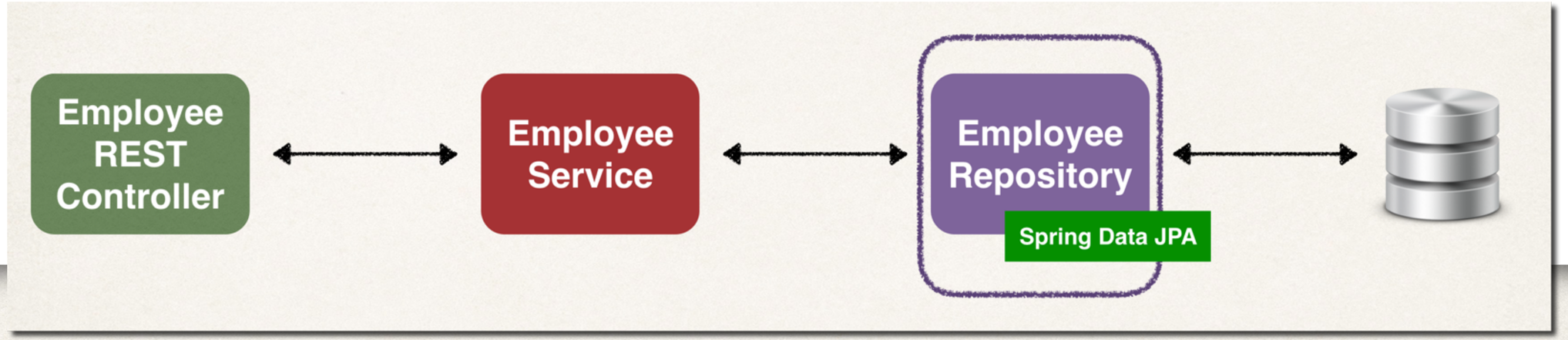

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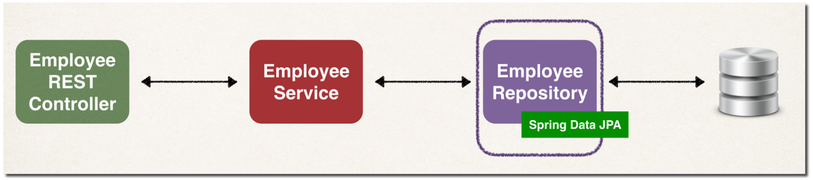

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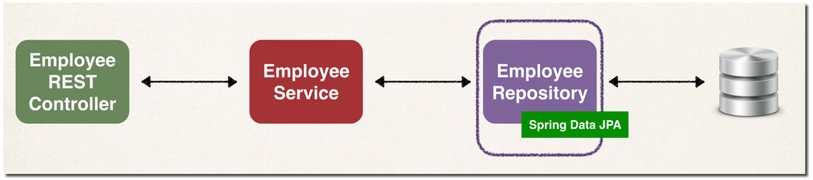

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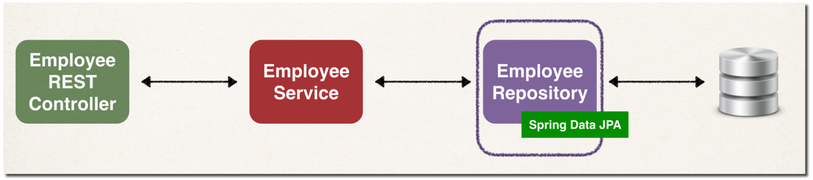

Magic method that is available via repository

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```

2 Files
30+ lines of code

After Spring Data JPA

```
public interface EmployeeRepository extends JpaRepository<Employee, Integer> {

    // that's it ... no need to write any code LOL!

}
```

1 File
3 lines of code!

No need for implementation class

Minimized Boilerplate Code

Before Spring Data JPA

```
public interface EmployeeDAO {

    public List<Employee> findAll();

    public Emplo      yId(int theId);

    public void       ee theEmployee

    public void d     theId)

}
```

```
@Repository
public class Employee

    private EntityManag

    @Autowired
    public EmployeeDAOJpa      yManager) {
        entityManager = th
    }

    @Override
    public List<Empl

        // create
        TypedQue                    loyee.class);

        //
        L          = theQ

    }

    @Ov
    publ          dById(int theId) {

        // get
        Employe      eEmployee =
                entityManager.find(Employee.class, theId);

        // return employee
        return theEmployee;
    }
```

2 Files
30+ lines of code

After Spring Data JPA

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www.luv2code.com/spring-data-jpa-defining-custom-queries