Sample App Architecture

Topics

✤ Application Features

✤ Big Picture

✤ Student DB Utility

✤ Student Controller

✤ JSF Page
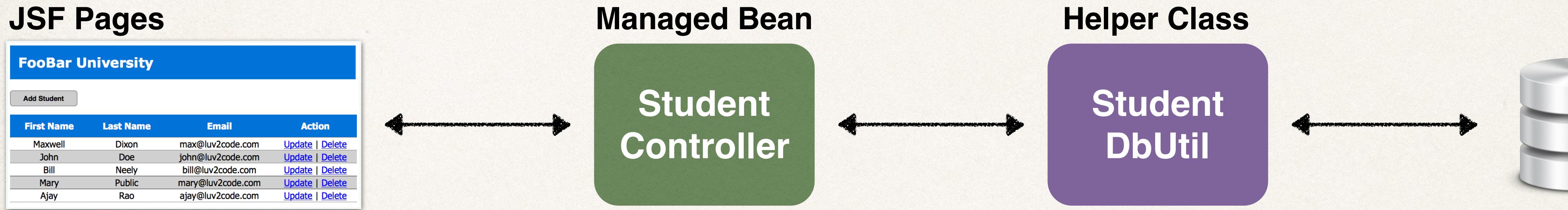
Sample App Features - Refresher

- List Students

- Add a new Student

- Update a Student

- Delete a Student

Big Picture

JSF Pages

FooBar University

Add Student

First Name	Last Name	Email	Action
Maxwell	Dixon	max@luv2code.com	Update | Delete
John	Doe	john@luv2code.com	Update | Delete
Bill	Neely	bill@luv2code.com	Update | Delete
Mary	Public	mary@luv2code.com	Update | Delete
Ajay	Rao	ajay@luv2code.com	Update | Delete

**Managed Bean**

Student Controller

Helper Class

Student DbUtil

Student DB Utility

✤ Responsible for interfacing with the database using JDBC code

✤ This is a common design pattern: **D**ata **A**ccessor **O**bject **(DAO)**

Helper Class

JSF Pages

FooBar University

Add Student

First Name	Last Name	Email	Action
Maxwell	Dixon	max@luv2code.com	Update	Delete
John	Doe	john@luv2code.com	Update	Delete
Bill	Neely	bill@luv2code.com	Update	Delete
Mary	Public	mary@luv2code.com	Update	Delete
Ajay	Rao	ajay@luv2code.com	Update	Delete

Managed Bean

Student Controller

Student DbUtil

Student DB Utility

Methods
getInstance()
getStudent(...)
getStudents()
addStudent(...)
updateStudent(...)
deleteStudent(...)
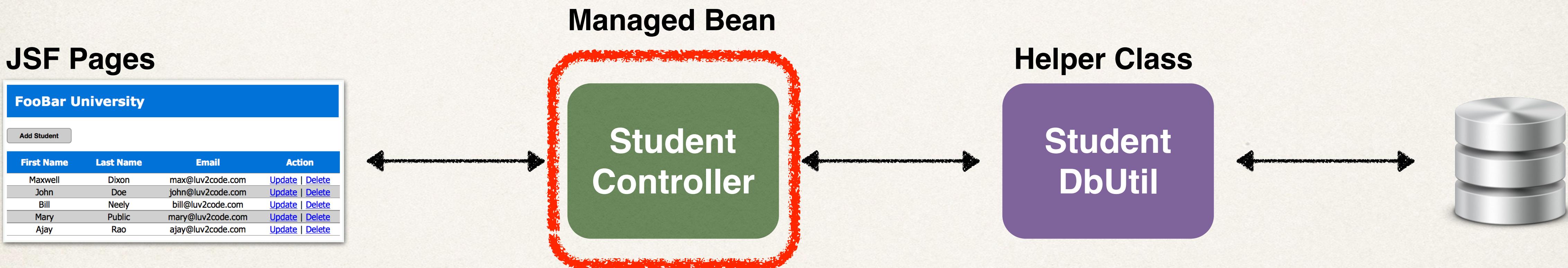
Student Controller

1. JSF Managed Bean

2. Interface between JSF pages and Student DB Utility

JSF Pages

Managed Bean

Helper Class

FooBar University			
Add Student			
First Name	**Last Name**	**Email**	**Action**
Maxwell	Dixon	max@luv2code.com	Update | Delete
John	Doe	john@luv2code.com	Update | Delete
Bill	Neely	bill@luv2code.com	Update | Delete
Mary	Public	mary@luv2code.com	Update | Delete
Ajay	Rao	ajay@luv2code.com	Update | Delete

Student Controller

Student DbUtil

luv2code

Student Controller

Methods
loadStudents(…)
getStudents()
…
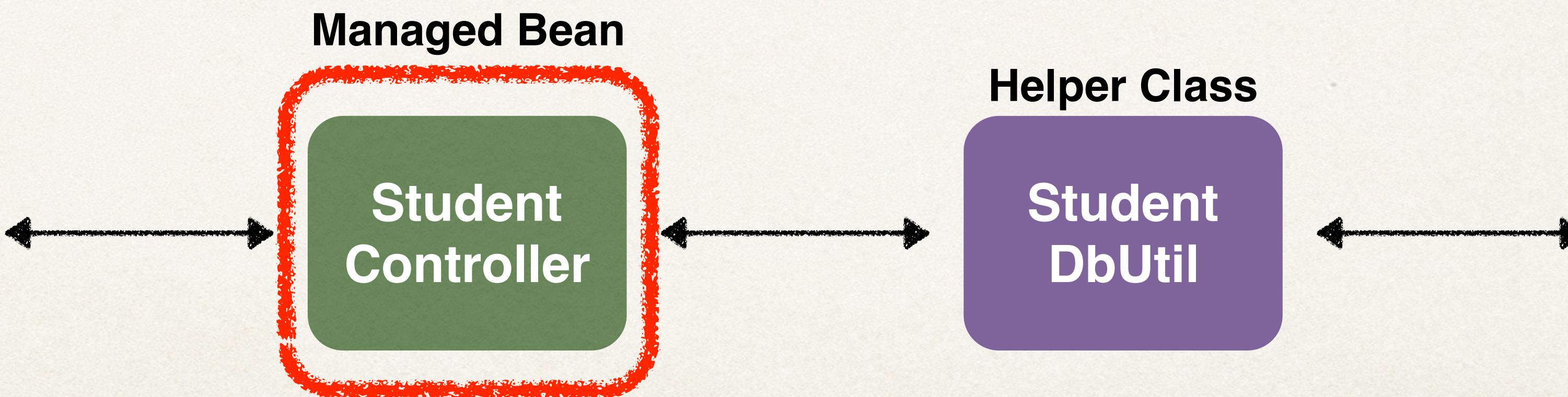
Managed Bean

JSF Pages

FooBar University

Add Student

First Name	Last Name	Email	Action
Maxwell	Dixon	max@luv2code.com	Update | Delete
John	Doe	john@luv2code.com	Update | Delete
Bill	Neely	bill@luv2code.com	Update | Delete
Mary	Public	mary@luv2code.com	Update | Delete
Ajay	Rao	ajay@luv2code.com	Update | Delete

Student Controller

Helper Class

Student DbUtil

JSF Page - Display Students

File: WebContent/test/test-db.xhtml
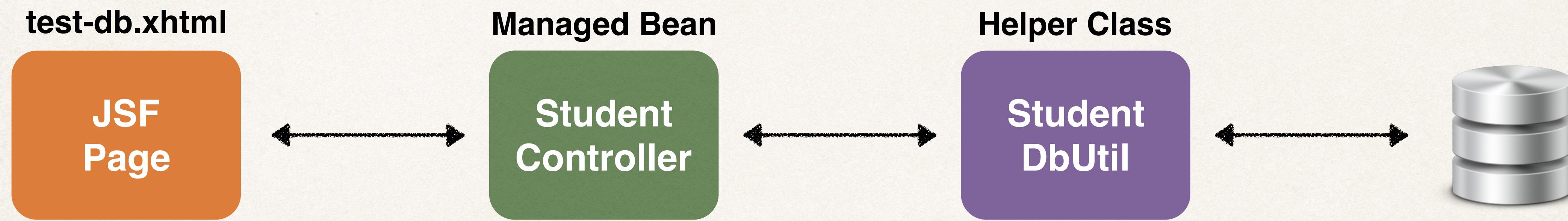
```xml
<f:metadata>
  <f:event   type="preRenderView"
             listener="#{studentController.LoadStudents()}"/>
</f:metadata>

<h:body>
    <h3>Database Test</h3>

    The data: #{studentController.students}

    <h:messages />
</h:body>
```

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Pulling It All Together

test-db.xhtml

JSF Page

Managed Bean

Student Controller

Helper Class

Student DbUtil

Summary

✤ Application Features

✤ Big Picture

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Sample App Architecture