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LAB#3 ORM

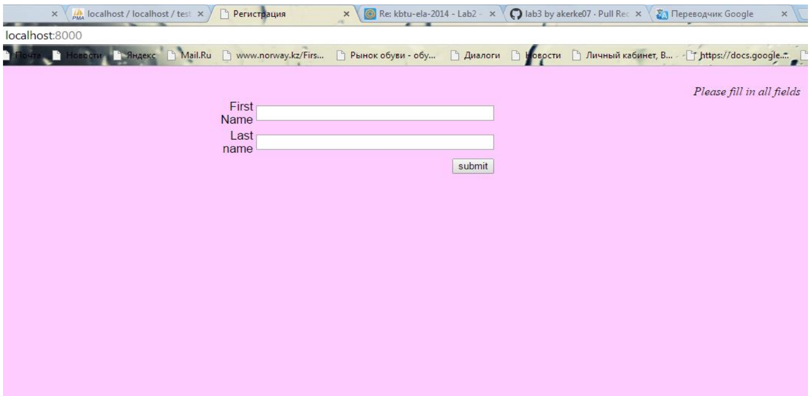
In this lab I have created web application that display list of students. For implementing my application I have used Hibernate ORM framework. It provides the access to database. As database I have used SQL database. Hibernate has simplified my work, so with it I can do not carry organizing database, writing sql-code; one problem only stays – is to connect with SQL Database. Thus it Hibernate help to be more concentrated on OOP.

To connect with database I have created two .xml documents: hibernate.cfg.xml and Student.hbm.xml.

As model for my application I have class Student, so instances of Student will be stored in the database. For presenting my application I have used Transform View (TransformData.java) where function viewStudents() represent useable view of every student from the list(data of them, *delete* and *update* bottons).

In class ListManage.java I have functions that response to contact with database(adding, deleting, updating and getting student by id).

So if go to the main page we see form to adding new students:

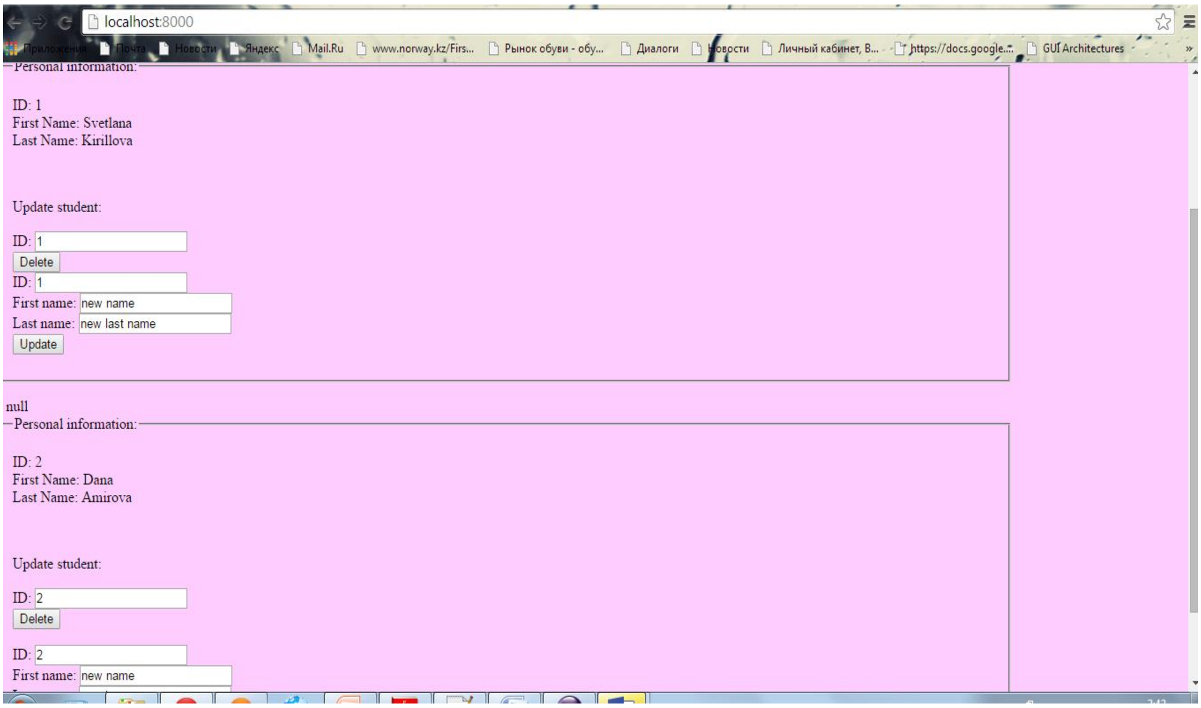


Please fill in all fields

First Name

Last name

We can add some new students, and they will appearance on the page if we restart our page:



Personal information:

ID: 1
First Name: Svetlana
Last Name: Kirillova

Update student:

ID: 1

ID: 1
First name: new name
Last name: new last name

null

Personal information:

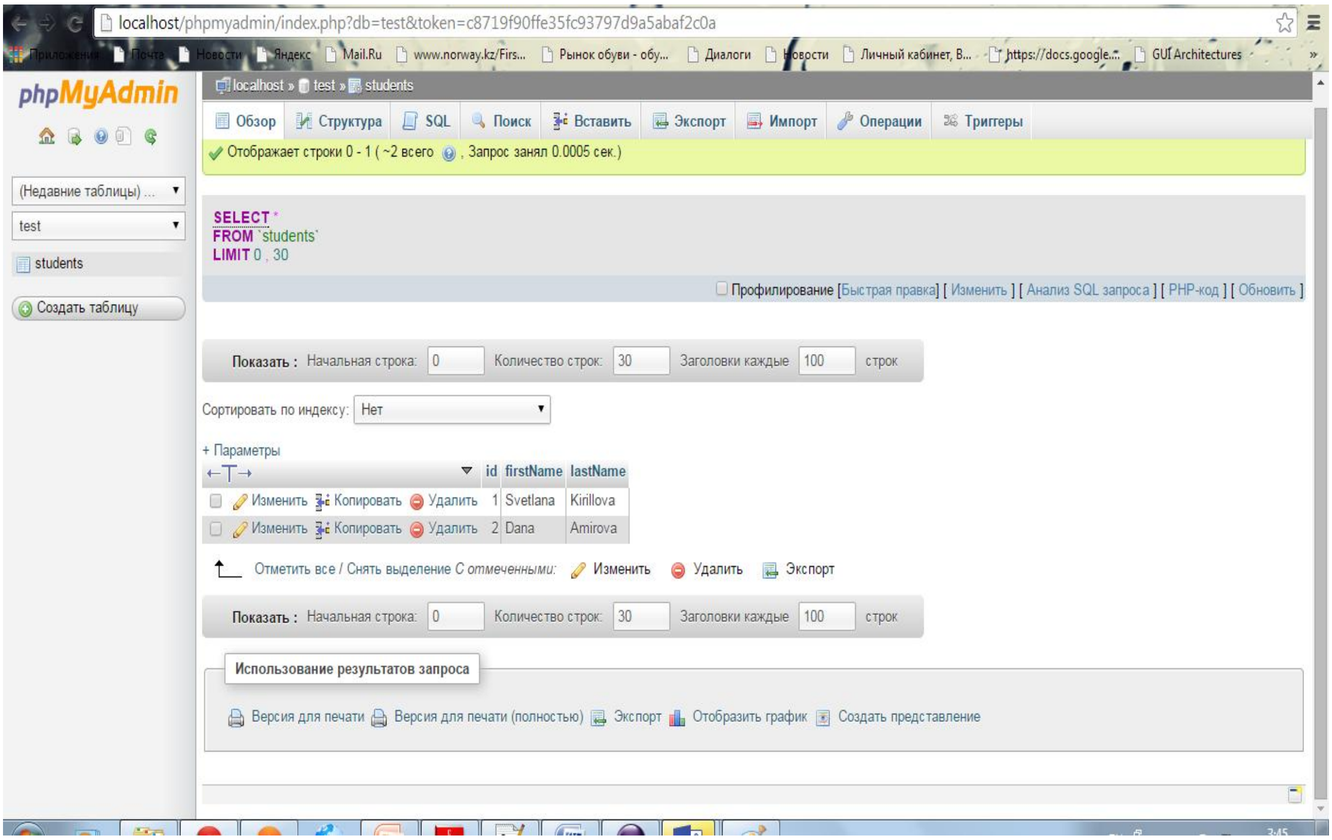
ID: 2
First Name: Dana
Last Name: Amirova

Update student:

ID: 2

ID: 2
First name: new name

So we can see these two students in our table *students* of *test database:*



localhost/phpmyadmin/index.php?db=test&token=c8719f90ffe35fc93797d9a5abaf2c0a

localhost » test » students

✓ Отображает строки 0 - 1 (~2 всего , Запрос занял 0.0005 сек.)

```
SELECT *
FROM `students`
LIMIT 0 , 30
```

□ Профилирование [Быстрая правка] [Изменить] [Анализ SQL запроса] [PHP-код] [Обновить]

Показать : Начальная строка: 0 Количество строк: 30 Заголовки каждые 100 строк

Сортировать по индексу: Нет

+ Параметры

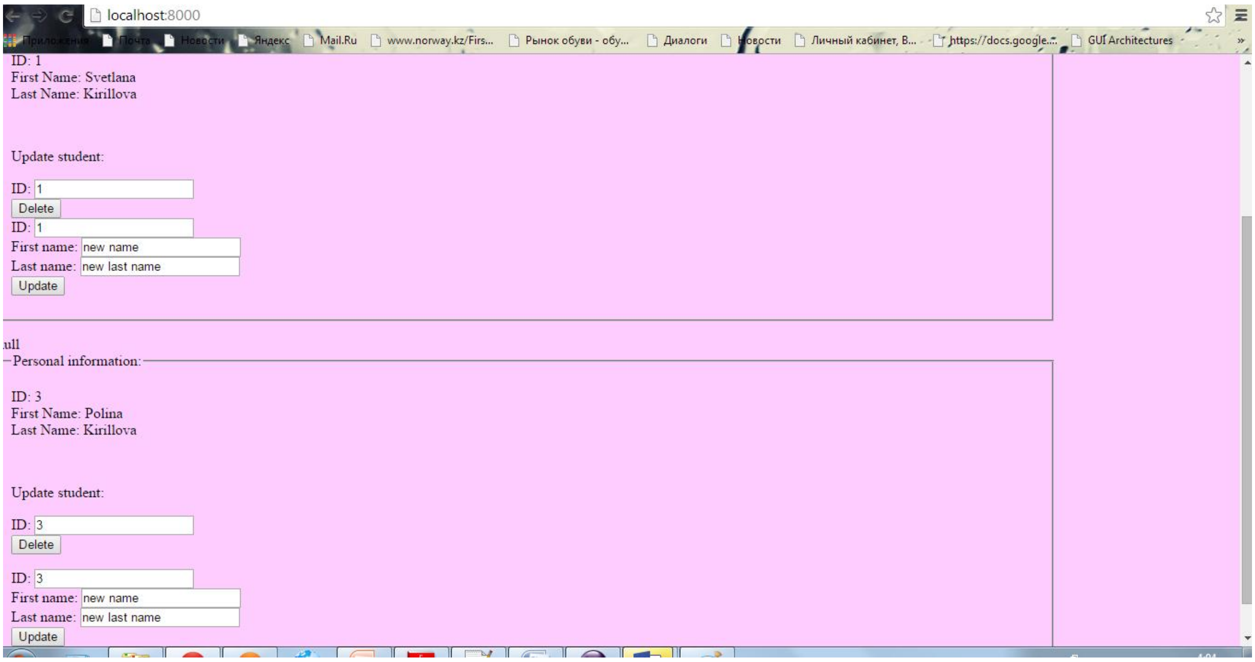
	id	firstName	lastName
□ Изменить Копировать Удалить	1	Svetlana	Kirillova
□ Изменить Копировать Удалить	2	Dana	Amirova

Отметить все / Снять выделение С отмеченными: Изменить Удалить Экспорт

Показать : Начальная строка: 0 Количество строк: 30 Заголовки каждые 100 строк

Использование результатов запроса

Also we can delete this user by pushing on *delete* button is near with respective student(the info about students(id) is sent with request that is used to find this student in database); and if we add new student again(after deleting) hi will have id=3(not 2) as we used auto increment for it:



localhost:8000

ID: 1
First Name: Svetlana
Last Name: Kirillova

Update student:

ID: 1
Delete
ID: 1
First name: new name
Last name: new last name
Update

ull
Personal information:

ID: 3
First Name: Polina
Last Name: Kirillova

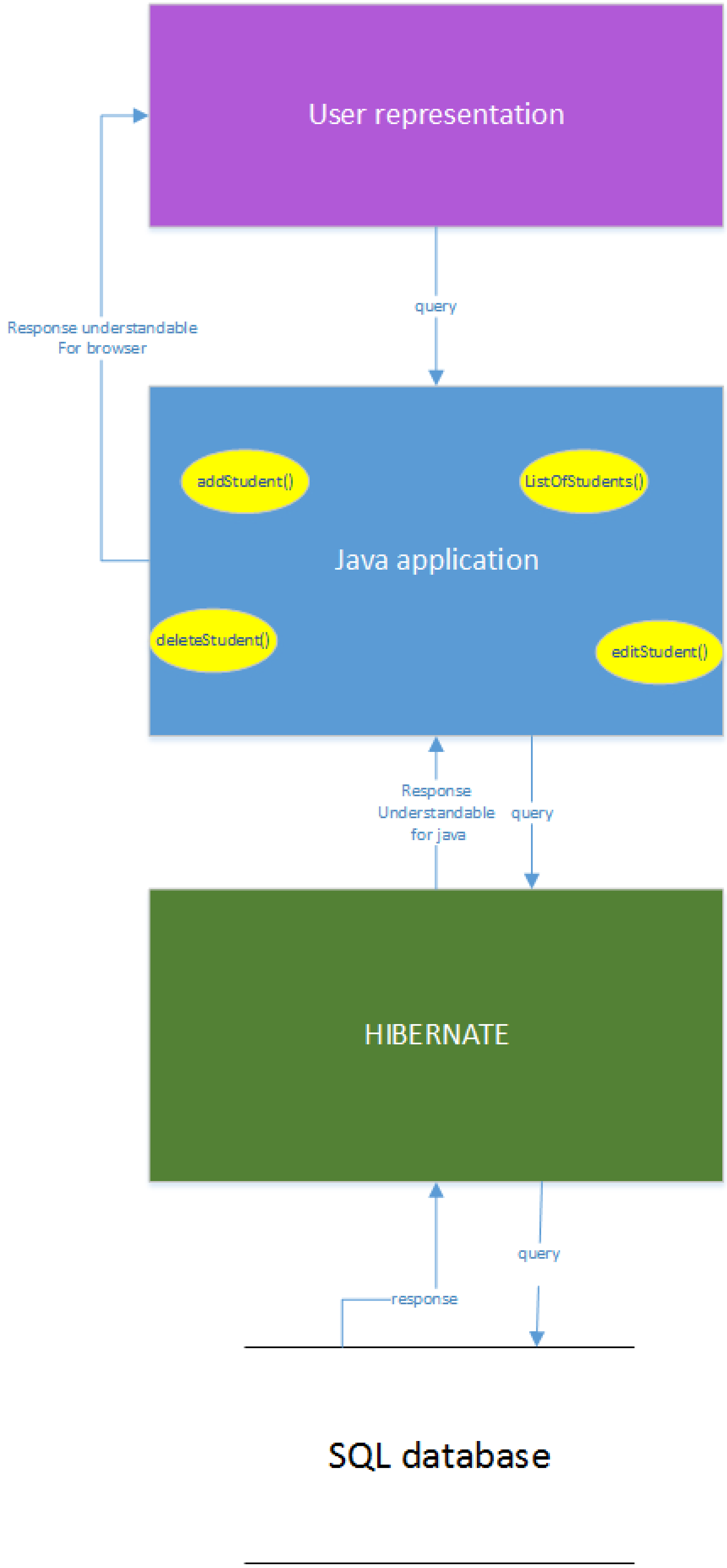
Update student:

ID: 3
Delete

ID: 3
First name: new name
Last name: new last name
Update

Unfortunately I cannot do working my delete button.

Following scheme shows how query move from user to database and return back:


User representation
query
Response understandable
For browser
addStudent()
ListOfStudents()
Java application
deleteStudent()
editStudent()
Response
Understandable
for java
query
HIBERNATE
query
response
SQL database