

CS 564

Database Management Systems

University of Wisconsin - Madison

Madison, WI 53706

Project Stage #5

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Submitted to:

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Date Due: Apr 24, 2015

• Platforms & Languages:

We used SQLite as our relational database. Struts including jsp, java, xml is used as our web application.

Database Tables:

We have ten tables in total. Here is one sample of creating a table: CREATE TABLE COMMMAPSDEV.food_user (USER_ID VARCHAR2(16) NOT NULL, USER PASSWORD VARCHAR2(16) NOT NULL, NICKNAME VARCHAR2(16) NOT NULL, AVERAGE RATINGS NUMBER (2,1), MEMBER_SINCE DATE DEFAULT (sysdate), PRIMARY KEY (USER ID)); The ten tables are shown in the following screenshot: E- FOOD_ATTENDS 🔶 desci - 🌲 index count select insert FOOD_EVENT 🗄 📲 FOOD_FOOD FOOD_FRIEND ÷... ÷… FOOD_LIKES 🗄 -- 🏊 FOOD_OWNS FOOD_RESTAURANT FOOD_REVIEWS ÷... 🗄 📲 FOOD_USER VIEW (H) Here is the interface looks like:

Welcome to Online Food Paradise!

To get started, you need to enter your details to enroll with us. Or login to access your details, if you are already enrolled.



Here is the codes look like (Struts was used as MVC.):

🎦 Project Explorer 🙁 😪 Navigator 🛛 🗖 🗖	📄 index.jsp	🗈 searchsucce	📄 reviewedit.jsp	🚺 ReviewAction	🚺 reviews.java	🔊 ReviewEditAc 🔀	🚺 CheckinActi	»3 – 🗆
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 ▷ ② events.java ▷ ③ FriendAction.java ▷ ③ HelloWorldAction.java 		sql = ("SELECT ps = conn.prepa System. <i>out</i> .prin	* FROM COMMMAPSDEV reStatement(sql); :ln(sql);	.FOOD_REVIEWS WHERE	RESTAURANT_ID =	"+restauranttemp+	" AND USER_ID =	"+useridt:
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 ▶ MayaScript Kesources >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	<pre>}else{ sql = ("INSERT INTO COMMMAPSDEV.FOOD_REVIEWS (USER_ID_RESTAURANT_ID_RATINGS, REVIEW_DATE, COMMENTS) VALUES ' sql ++ ("("+useridtemp+"', "+restauranttemp+"', "+ratings+"', TO_DATE("+dateFormat.format(date)+"', 'yyyy, ps.=.com.prepareStatement(sql); System.out.println(sql); ps.executeUpdate(); totalrating = (totalrating*totalnum+Double.parseDouble(ratings))/(totalnum+1); totalnum +=1; sql = ("UPDATE COMMAPSDEV.FOOD_RESTAURANT_SET RESTAURANT_RATING = ""+totalrating+"', RESTAURANT_RATING_N ps = com.prepareStatement(sql); </pre>							LUES "); 'yyyy/mr/da ING_NUM =
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Its absolutely quick!

Fill all the information in the f	orm		
UserId: jinruan			
Password: jinruan			
Nickname: <mark>jin</mark>			
Signup			

After filling the signup form, the codes will read the information in the frontend and translates it into the SQL insert query, here is the screenshot of the codes and the sql query it translated:

Ъ Project Explorer 🔀 🐁 Navigator 👘		🔝 index.jsp	📓 searchsucce	🔝 reviewedit.jsp	🚺 ReviewAction	🚺 reviews.java	🔊 ReviewEditAc 🔀	🚺 CheckinActi	»₃ ⊏	° 🗆	3 "1	
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 ▲			<pre>sql = ("SELECT * ps = conn.prepar System.out.print rs = ps.executeQ</pre>	<pre>FROM CONVEMPSDEV eStatement(sql); ln(sql); uery();</pre>	.FOOD_REVIEWS WHERE	E RESTAURANT_ID =	"+restauranttemp+	"' AND USER_ID =	"+useridt	•	⊿ 🥵	} com.ti Reviev • ra
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 ▶ ↓ UnfriendAction.java ▶ ↓ users.java ▶ ➡ Libraries ▶ ➡ JavaScript Resources 		&	<pre>}else{ sql = ("INSE sql += ("(''' ps = conn.pr Sustem out p</pre>	RT INTO COMMMAPSD +useridtemp+"','"- epareStatement(sg	EV.FOOD_REVIEWS (US +restauranttemp+"'; 1);	ER_ID,RESTAURANT ,""+ratings+"',TO	ID,RATINGS,REVIEW_ DATE('"+dateFormat	DATE,COMMENTS) VAI .format(date)+"',	LUES "); 'yyyy/mm/d	¢ •		
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۲. III I	F	•										- F

You will insert the information into the database and it will show up in the database:



• Search query will ask queries over database:

		Home	jin	Log Out	Explore •	Search
Welcome to Food Parac Let's have a tour of the local rest	dise, jin aurants, special events, and make so	ome friends.				
	t Sea	ırch				
restaurants@ events@ user@						

Then since you selected restaurants, events, and users, it will ask all the matched restaurants, events, and restaurants. The query here involves **joint operator**. The SQL query the codes made will be:

SELECT * FROM COMMMAPSDEV.FOOD_EVENT, COMMMAPSDEV.FOOD_RESTAURANT WHEREEVENT_NAME LIKE '%t%' AND COMMMAPSDEV.FOOD_RESTAURANT.RESTAURANT_ID =COMMMAPSDEV.FOOD_EVENT.RESTAURANT_ID AND ROWNUM < 10</td>SELECTUSER_ID,NICKNAME,AVERAGE_RATINGS,MEMBER_SINCECOMMMAPSDEV.FOOD_USER WHERE NICKNAME LIKE '%t%' AND ROWNUM < 10</td>The returned tuples will show up in the webpage:

Matched Restaurants

Name	Address	Latitude	Longitude	Rating	Rating_Number	Review	Check In
test1	test1	80	80	2.1	12	Review	Check In
test2	test2	1	1	5	1	Review	Check In

Matched Events

Name	Restaurant	Time	Event Cost	Description	Attend
party	test1	2015-04-23 16:36:59.0			Attend

Matched Users

Nickname	Average Rating	Member_Since	Friend	Unfriend	
test		2015-04-23 16:29:18.0	Friend	Unfriend	
test		2015-04-23 15:57:32.0	Friend	Unfriend	

As you can see from the above screenshot, you can check in or review a restaurant, attend a event, friend or unfriend other users.

For the friend, attend and checkin, after you clicking the button, it will add a record into the specific table in the database.



test2

testl

johnlee

5	johnlee	testl	23-Apr-2015 19:5	59:25	
	ANT	elect * from COMMMAPSDEV.F	:00D_EVENT		
EVENT_ID E	VENT_NAME	RESTAURANT_ID	EVENT_TIMESTAMP	EVENT_COST	DESCRIPTION
john na	an tar	testl	23-1nr-2015 16.36.59		

23-Apr-2015 20:02:33

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Image: Constraint of the section of the sectin of the section of the section of the section of the section of	D URANT WS [COMMMAPSDEV]	▼ Search ▼ History	select * from COI
USER1_ID	USER2_ID		
jinruan	test2		

• **Review function will query, insert, and update record in the database** When you click the review button, it will firstly check if the review was already in the database. If it was, the previous review will return and enable you to edit it.

Welcome to Food Paradise, jin						
Make a review.						
Restaurant: test1 Rating: 1	Comments: It is horrible					
Save Review a	& Return					

After you change the previous review, it will do the modification query, which will update the original value.

```
UPDATE COMMMAPSDEV.FOOD_REVIEWS SET RATINGS = 2 WHERE RESTAURANT_ID = 'test1' AND USER_ID = 'jinruan'
```

UPDATE COMMMAPSDEV.FOOD_RESTAURANT SET RESTAURANT_RATING = '2.076923076923077' WHERE RESTAURANT ID = 'test1'

If the user didn't make a review before, after user submit the review, it will insert a review into the database.

For the unfriend button, it will delete the record that is in the friend table.

For other functions like login, it will do the select query to ask the database to return the records satisfying conditions.