Some User-Level Transactions:  
**1 Sign up on the Web site**

**(SignupS.java)**

query1 = SELECT USERID FROM USERREGISTER

query2 = INSERT INTO USERREGISTER (USERNAME, PASSWORD, USERID) VALUES ('" + username + "', '" + password + "', '" + userid + "')

query3 = INSERT INTO USER (USERID, FIRSTNAME, LASTNAME, SEX, EMAIL, DOB, ADDRESS, CITY, STATE, ZIPCODE, TELEPHONE) VALUES ('" + userid + "', '" + firstname + "', '" + lastname + "', '" + sex + "', '" + email + "', TO\_DATE('" + month + "/" + date + "/" + year + "', 'mm/dd/yyyy'), '" + address + "', '" + city + "', '" + state + "', '" + zipcode + "', '" + telephone + "')  
**2 Create/delete circles**

**(Create: CreateCircleS.java)**

query1 = SELECT CIRCLEID FROM CIRCLE

query2 = INSERT INTO CIRCLE (CIRCLEID, CIRCLENAME, OWNERID) VALUES ('" + circleid\_db + "', '" + circlename + "', '" + ownerid + "')

**(Delete: CircleListS.java)**

query1 = DELETE FROM CIRCLEMEMBER WHERE (CIRCLEID = '" + circleid + "')

query2 = DELETE FROM CIRCLE WHERE (CIRCLEID = '" + circleid + "')  
**3 Search for a user ask for friendship**

**(Search: SearchFriendS.java)**

query1 = SELECT \* FROM USER

**(Ask: SearchResultSFriend.java)**

query1 = SELECT FRIENDREQUESTID FROM FRIENDREQUEST

query2 = INSERT INTO FRIENDREQUEST (FRIENDREQUESTID, SENDERID, RECEIVERID) VALUES ('" + friendrequestid\_db + "', '" + senderid + "', '" + receiverid + "')  
**4 Accept a friendship request / Delete a friend**

**(Accept: ConfirmFriendS.java)**

query1 = SELECT FRIENDID FROM FRIEND

query2 = INSERT INTO FRIEND (FRIENDID, OWNERID, OWNERFRIENDID) VALUES ('" + friendid\_db + "', '" + senderid + "', '" + hostid + "')

query3 = INSERT INTO FRIEND (FRIENDID, OWNERID, OWNERFRIENDID) VALUES ('" + friendid\_db + "', '" + hostid + "', '" + senderid + "')

query4 = DELETE FROM FRIENDREQUEST WHERE (SENDERID = '" + senderid + "' AND RECEIVERID = '" + hostid + "')

**(Delete: ConfirmFriendS.java)**

query 1 = DELETE FROM FRIENDREQUEST WHERE (SENDERID = '" + senderid + "' AND RECEIVERID = '" + hostid + "')  
**5 Add/remove friends to/from circles**

**(Add: FriendListS.java)**

query1 = SELECT CIRCLEMEMBERID FROM CIRCLEMEMBER

query2 = INSERT INTO CIRCLEMEMBER (CIRCLEMEMBERID, CIRCLEID, CIRCLEMEMBERUSERID) VALUES ('" + circlememberid\_db + "', '" + circleid + "', '" + friendid + "')

**(Remove: SearchResultSCircleFriend.java)**

query1 = "DELETE FROM CIRCLEMEMBER WHERE (CIRCLEMEMBERUSERID = '" + friendid\_choose + "')  
**6 Make/remove/modify posts**

**(Make: CreatePostS.java)**

query1 = SELECT POSTPAGEID FROM POSTPAGE

**(Remove: PostListS.java)**

query2 = INSERT INTO POSTPAGE (POSTPAGEID, OWNERID) VALUES ('" + postpageid\_db + "', '" + page\_ownerid + "')

query3 = SELECT POSTID FROM POST

query4 = INSERT INTO POST (POSTID, OWNERID, CONTENT, DATETIME, POSTPAGEID) VALUES ('" + postid\_db + "', '" + post\_ownerid + "', '" + content + "', '" + datetime + "', '" + postpageid\_db + "')

**(Modify: ModifyPostS.java)**

query1 = UPDATE POST SET CONTENT = '" + content +"' WHERE POSTID = '" + postid + "'

query2 = UPDATE POST SET DATETIME = '" + datetime + "' WHERE POSTID = '" + postid + "'  
**7 Comment on posts**

**(CreateCommentS.java)**

query1 = SELECT COMMENTID FROM COMMENT

query2 = INSERT INTO COMMENT (COMMENTID, OWNERID, CONTENT, DATETIME, POSTID) VALUES ('" + commentid\_db + "', '" + comment\_ownerid + "', '" + content + "', '" + datetime + "', '" + postid + "')  
**8 Search/Join SIPs**

**(Search: SearchSipS.java)**

query1 = SELECT SIPID, SIPNAME FROM SIP

**(Join: SearchResultSSip.java)**

query1 = SELECT SIPREQUESTMEMBERID FROM SIPREQUESTMEMBER

query2 = INSERT INTO SIPREQUESTMEMBER (SIPREQUESTMEMBERID, SIPID, SENDERID) VALUES ('" + siprequestmemberid\_db + "', '" + sipid\_choose + "', '" + hostid + "') **9 Moderate SIPs**

**(Accept member application: AppmemberlistS.java)**

query1 = SELECT SIPMEMBERID FROM SIPMEMBER

query2 = INSERT INTO SIPMEMBER (SIPMEMBERID, SIPID, MEMBERID) VALUES ('" + sipmemberid\_db + "', '" + sipid\_choose + "', '" + senderid\_choose + "')

query3 = DELETE FROM SIPREQUESTMEMBER WHERE (SENDERID = '" + senderid\_choose + "' AND SIPID = '" + sipid\_choose + "')

**(Deny member application: AppmemberlistS.java)**

query1 = DELETE FROM SIPREQUESTMEMBER WHERE (SENDERID = '" + senderid\_choose + "' AND SIPID = '" + sipid\_choose + "')

**(Accept moderator application: AppmoderatorlistS.java)**

query1 = SELECT SIPMODERATORID FROM SIPMODERATOR

query2 = INSERT INTO SIPMODERATOR (SIPMODERATORID, SIPID, MODERATORID) VALUES ('" + sipmoderatorid\_db + "', '" + sipid\_choose + "', '" + senderid\_choose + "')

query3 = DELETE FROM SIPREQUESTMODERATOR WHERE (SENDERID = '" + senderid\_choose + "' AND SIPID = '" + sipid\_choose + "')

**(Deny moderator application: AppmoderatorlistS.java)**

query1 = DELETE FROM SIPREQUESTMODERATOR WHERE (SENDERID = '" + senderid\_choose + "' AND SIPID = '" + sipid\_choose + "')

**(Send invitation: CreateInvitationS.java)**

query1 = SELECT SIPREQUESTINVITATIONID FROM SIPREQUESTINVITATION

query2 = INSERT INTO SIPREQUESTINVITATION (SIPREQUESTINVITATIONID, SENDERID, SIPID, RECEIVERID, CONTENT) VALUES ('" + siprequestinvitationid\_db + "', '" + senderid + "', '" + sipid + "', '" + receiverid\_db + "', '" + content + "') **10 Make/remove/modify own SIP posts**

**(Make: CreatePostSSip.java)**

query1 = SELECT SIPPOSTID FROM SIPPOST

query2 = INSERT INTO SIPPOST (SIPPOSTID, OWNERID, CONTENT, DATETIME, SIPID) VALUES ('" + sippostid\_db + "', '" + post\_ownerid + "', '" + content + "', '" + datetime + "', '" + sipid\_choose + "')

**(Remove: PostListSSip.java)**

query1 = DELETE FROM SIPCOMMENT WHERE (SIPPOSTID = '" + postid\_choose + "')

query2 = DELETE FROM SIPPOST WHERE (SIPPOSTID = '" + postid\_choose + "')

**(Modify: ModifyPostSSip.java)**

query1 = UPDATE SIPPOST SET CONTENT = '" + content +"' WHERE SIPPOSTID = '" + postid + "'

query2 = UPDATE SIPPOST SET DATETIME = '" + datetime + "' WHERE SIPPOSTID = '" + postid + "' **11 Comment on SIP posts**

**(CreateCommentSSip.java)**

query1 = SELECT SIPCOMMENTID FROM SIPCOMMENT

query2 = INSERT INTO SIPCOMMENT (SIPCOMMENTID, OWNERID, CONTENT, DATETIME, SIPPOSTID) VALUES ('" + commentid\_db + "', '" + comment\_ownerid + "', '" + content + "', '" + datetime + "', '" + postid + "') **12 Send / Receive / Delete messages**

**(Send: CreateMessageS.java)**

query1 = SELECT SUBJECTID FROM SUBJECT

query2 = INSERT INTO SUBJECT (SUBJECTID, SUBJECTNAME) VALUES ('" + subjectid\_db + "', '" + subjectname + "')

query3 = SELECT SUBJECTID FROM SUBJECT WHERE SUBJECTNAME = '" + subjectname + "'

query4 = SELECT MESSAGEID FROM MESSAGE

query5 = INSERT INTO MESSAGE (MESSAGEID, SUBJECTID, CONTENT, SENDERID, DATETIME) VALUES ('" + messageid\_db + "', '" + subjectid\_db + "', '" + content + "', '" + senderid + "', '" + datetime + "')

query6 = SELECT MESSAGERECEIVERID FROM MESSAGERECEIVER

query7 = INSERT INTO MESSAGERECEIVER (MESSAGERECEIVERID, RECEIVERID, MESSAGEID) VALUES ('" + messagereceiverid\_db + "', '" + receiverid\_db + "', '" + messageid\_db + "')

query8 = SELECT MESSAGERECEIVERID FROM MESSAGERECEIVER

query9 = INSERT INTO MESSAGERECEIVER (MESSAGERECEIVERID, RECEIVERID, MESSAGEID) VALUES ('" + messagereceiverid\_db + "', '" + senderid + "', '" + messageid\_db + "')

**(Receive: MessageS.java + SubjectListS.java)**

query1 = SELECT MESSAGEID FROM MESSAGERECEIVER WHERE RECEIVERID = '" + hostid + "'

query2 = SELECT SUBJECTID FROM MESSAGE WHERE MESSAGEID = '" + messageid\_db + "'

query3 = SELECT SUBJECTNAME FROM SUBJECT WHERE SUBJECTID = '" + subjectid\_db + "'

query1 = SELECT MESSAGEID FROM MESSAGERECEIVER WHERE RECEIVERID = '" + hostid + "'

query2 = SELECT CONTENT, SENDERID, DATETIME FROM MESSAGE WHERE (MESSAGEID = '" + messageid\_db + "' AND SUBJECTID = '" + subjectid\_choose + "')

query3 = SELECT FIRSTNAME, LASTNAME FROM USER WHERE (USERID = '" + senderid1\_db + "')

**(Delete: MessageListS.java)**

query1 = DELETE FROM MESSAGERECEIVER WHERE (MESSAGEID = '" + messageid\_choose + "')

query2 = DELETE FROM MESSAGE WHERE (MESSAGEID = '" + messageid\_choose + "') **13 Purchase one or more copies of an advertised item**

**(PurchaseS.java)**  
query1 = SELECT TRANSACTIONID FROM TRANSACTION

query2 = INSERT INTO TRANSACTION (TRANSACTIONID, DATETIME, ADVERTISEMENTID, NUMBER\_OF\_UNITS, USERID) VALUES ('" + transactionid\_db + "', '" + datetime + "', '" + advertisementid\_choose + "', '" + numberofunit + "', '" + hostid + "')  
**Web Site Manager-Level Transactions: a separate Web site for site managers should allow managers to:  
  
1 Create/delete an advertisement**

**(Create: CreateAdvtSM.java)**

query1 = SELECT ADVERTISEMENTID FROM ADVERTISEMENT

query2 = INSERT INTO ADVERTISEMENT (ADVERTISEMENTID, TYPE, DATE, COMPANY, ITEMNAME, UNITPRICE, NUMBER\_OF\_AVAILABLE\_UNITS) VALUES ('" + advertisementid\_db + "', '" + type + "', '" + date + "', '" + company + "', '" + itemname + "', '" + unitprice + "', '" + numberofavailableunits + "')

**(Delete: AdvtListSM.java)**

query1 = DELETE FROM ADVERTISEMENT WHERE (ADVERTISEMENTID = '" + advertisementid\_choose + "')

query2 = DELETE FROM TRANSACTION WHERE (ADVERTISEMENTID = '" + advertisementid\_choose + "') **2 List the sales report for a particular month**

**(TLMonthListSM.java)**

query1 = SELECT TRANSACTIONID, DATETIME, ADVERTISEMENTID, NUMBER\_OF\_UNITS, USERID FROM TRANSACTION

query2 = SELECT FIRSTNAME, LASTNAME FROM USER WHERE USERID = '" + userid\_db + "'

query3 = SELECT TYPE, COMPANY, ITEMNAME, UNITPRICE FROM ADVERTISEMENT WHERE ADVERTISEMENTID = '" + advertisementid\_db + "' **3 Produce a comprehensive listing of all items being advertised on the site**

**(AdvtSM.java)**

query1 = SELECT \* FROM ADVERTISEMENT **4 Produce a list of transactions by item name or by customer name**

**(By item name: TransactionListSM + TLItemListSM.java)**

query1 = SELECT ADVERTISEMENTID, ITEMNAME FROM ADVERTISEMENT

query1 = SELECT TRANSACTIONID, DATETIME, NUMBER\_OF\_UNITS, USERID FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "'

query2 = SELECT FIRSTNAME, LASTNAME FROM USER WHERE USERID = '" + userid\_db + "'

**(By customer name: TransactionListSM + TLCustomerListSM.java)**

query1 = SELECT TRANSACTIONID, USERID FROM TRANSACTION

query2 = SELECT FIRSTNAME, LASTNAME FROM USER WHERE USERID = '" + userid\_db + "'

query1 = SELECT TRANSACTIONID, DATETIME, NUMBER\_OF\_UNITS FROM TRANSACTION WHERE TRANSACTIONID = '" + transactionid\_choose + "' **5 Produce a summary listing of revenue generated by a particular item, item type, or customer**

**(By item: RLItemListSM.java)**

query1 = SELECT ADVERTISEMENTID, ITEMNAME, UNITPRICE FROM ADVERTISEMENT

query2 = SELECT TRANSACTIONID, NUMBER\_OF\_UNITS, FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "'

**(By itemtype: RLTypeListSM.java)**

query1 = SELECT ADVERTISEMENTID, TYPE, UNITPRICE FROM ADVERTISEMENT

query2 = SELECT TRANSACTIONID, NUMBER\_OF\_UNITS FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "'

**(By customer: RLCustomorListSM.java)**

query1 = SELECT ADVERTISEMENTID, UNITPRICE FROM ADVERTISEMENT

query1 = SELECT TRANSACTIONID, NUMBER\_OF\_UNITS, USERID FROM TRANSACTION WHERE TRANSACTIONID = '" + transactionid\_choose + "'

query2 = SELECT FIRSTNAME, LASTNAME FROM USER WHERE USERID = '" + userid\_db + "' **6 Determine which customer generated most total revenue**

**(AnalysisCustomerMS.java)**

query1 = SELECT ADVERTISEMENTID, UNITPRICE FROM ADVERTISEMENT

query2 = SELECT TRANSACTIONID, NUMBER\_OF\_UNITS, USERID FROM TRANSACTION WHERE TRANSACTIONID = '" + transactionid\_choose + "'

query3 = SELECT FIRSTNAME, LASTNAME FROM USER WHERE USERID = '" + userid\_db + "' **7 Determine which product (ad/item) generated most total revenue**

**(AnalysisItemMS.java)**

query1 = SELECT ADVERTISEMENTID, ITEMNAME, UNITPRICE FROM ADVERTISEMENT

query2 = SELECT TRANSACTIONID, NUMBER\_OF\_UNITS, FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "' **8 Produce a sorted list of sold items by number of units sold**

**(AnalysisCompanySM.java)**

query1 = SELECT ADVERTISEMENTID, ITEMNAME, UNITPRICE FROM ADVERTISEMENT

query2 = SELECT TRANSACTIONID, NUMBER\_OF\_UNITS, FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "' **9 Produce a list of all customers who have purchased a particular item**

**(TLILCustomerListSM.java)**

query1 = SELECT ADVERTISEMENTID, ITEMNAME, UNITPRICE FROM ADVERTISEMENT

query2 = SELECT TRANSACTIONID, USERID FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "'

query3 = SELECT FIRSTNAME, LASTNAME FROM USER WHERE USERID = '" + userid\_db + "' **10 Produce a list of all items for a given company sorted by number of units sold**

**(AnalysisCompanySM.java)**

query1 = SELECT ADVERTISEMENTID, COMPANY FROM ADVERTISEMENT

query2 = SELECT TRANSACTIONID, NUMBER\_OF\_UNITS FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "' **11 Produce customer mailing lists for a given product**

**(AdvtListSM.java)**

query1 = SELECT USERID FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "'

query2 = SELECT EMAIL FROM USER WHERE USERID = '" + userid\_db + "' **12 Produce a list of item suggestions for a given customer (based on that customer's past transactions) – items of the same types**

**(CustomerListSM.java)**

query1 = SELECT ADVERTISEMENTID, TYPE, ITEMNAME FROM ADVERTISEMENT

query2 = SELECT TRANSACTIONID, USER FROM TRANSACTION WHERE ADVERTISEMENTID = '" + advertisementid\_choose + "'