**Test Data:**

INSERT INTO COURSE(ID, TITLE) VALUES(425,'Database Organization');

INSERT INTO COURSE(ID, TITLE) VALUES(522,'Advanced Data Mining');

INSERT INTO COURSE(ID, TITLE) VALUES(536,'Science of Programming');

INSERT INTO COURSE(ID, TITLE) VALUES(550,'Advanced Operating System');

INSERT INTO COURSE(ID, TITLE) VALUES(587,'Software Project Management');

INSERT INTO COURSE(ID, TITLE) VALUES(445,'Object Oriented Design and Programming');

INSERT INTO COURSE(ID, TITLE) VALUES(525,'Advanced Database Organization');

INSERT INTO COURSE(ID, TITLE) VALUES(442,'Mobile Application Development');

INSERT INTO COURSE(ID, TITLE) VALUES(586,'Software System Architecture');

INSERT INTO COURSE(ID, TITLE) VALUES(579,'Online Social Network Analysis');

--Insert into User\_

INSERT INTO USER\_

(userid, email, name, username, password)

VALUES

(1,'rdatta1@hawk.iit.edu','Rittick Datta','RittickDatta2015','RittickDatta55');

INSERT INTO USER\_

(userid, email, name, username, password)

VALUES

(2,'agupta98@hawk.iit.edu','Anshul Gupta','AnshulGupta2016','AnshulGupta54');

INSERT INTO USER\_

(userid, email, name, username, password)

VALUES

(3,'pvinay@hawk.iit.edu','Pavithra Vinay','PavithraVinay2016','PavithraVinay53');

INSERT INTO USER\_

(userid, email, name, username, password)

VALUES

(4,'fleung@hawk.iit.edu','Francis Leung','FrancisLeung2001','FrancisLeung99');

INSERT INTO USER\_

(userid, email, name, username, password)

VALUES

(5,'abader@hawk.iit.edu','Atef Bader','AtefBader2005','AtefBader45');

--Insert into Student

INSERT INTO STUDENT

(STUDENTID, YEAR, SEMESTER, GPA, DEGREESTATUS, DEGREETYPE, JOBS,BONUSCREDIT,NUMOFCOURSES, SHOWGPA, SHOWGROUPCLUB, SHOWCOURSEINTERESTGROUP)

VALUES

(1,2015,'Fall',4,'On­Going','GRADUATE','RA',0,3,'N','Y','Y');

INSERT INTO STUDENT

(STUDENTID, YEAR, SEMESTER, GPA, DEGREESTATUS, DEGREETYPE, JOBS,BONUSCREDIT,NUMOFCOURSES, SHOWGPA, SHOWGROUPCLUB, SHOWCOURSEINTERESTGROUP)

VALUES

(2,2016,'Spring',4,'On­Going','GRADUATE','RA,Developer',0,2,'N','N','N');

INSERT INTO STUDENT

(STUDENTID, YEAR, SEMESTER, GPA, DEGREESTATUS, DEGREETYPE, JOBS,BONUSCREDIT,NUMOFCOURSES, SHOWGPA, SHOWGROUPCLUB, SHOWCOURSEINTERESTGROUP)

VALUES

(3,2016,'Spring',4,'On­Going','GRADUATE','Video Recorder,TA',0,1,'Y','N','Y');

--Insert into Enrolled

INSERT INTO ENROLLED(STUDENTID, COURSEID, GRADE) VALUES(1,425,'A');

INSERT INTO ENROLLED(STUDENTID, COURSEID, GRADE) VALUES(1,522,'A');

INSERT INTO ENROLLED(STUDENTID, COURSEID, GRADE) VALUES(1,536,'A');

INSERT INTO ENROLLED(STUDENTID, COURSEID, GRADE) VALUES(2,425,'A');

INSERT INTO ENROLLED(STUDENTID, COURSEID, GRADE) VALUES(2,525,'A');

INSERT INTO ENROLLED(STUDENTID, COURSEID, GRADE) VALUES(3,442,'A');

--Insert into Faculty

INSERT INTO FACULTY

(FACULTYID, YEAR, POSITION, EXPERIENCE, PROJECTS)

VALUES

(4,2001,'Professor','NorthWestern, UIC','Project1, Project2');

INSERT INTO FACULTY

(FACULTYID, YEAR, POSITION, EXPERIENCE, PROJECTS)

VALUES

(5,2005,'Professor','Purdue, DePaul','Project1, Project2, Project3');

--Insert into TA

INSERT INTO TA (TAID) VALUES (2);

--Insert into Assists

INSERT INTO ASSISTS(TAID, COURSEID) VALUES (2,442);

--Insert into Teaches

INSERT INTO TEACHES (FACULTYID,COURSEID,GROUPID,AVGGPA) VALUES (4,425,NULL,NULL);

INSERT INTO TEACHES (FACULTYID,COURSEID,GROUPID,AVGGPA) VALUES (5,587,NULL,NULL);

--Insert into CourseInterestGroup

INSERT INTO COURSEINTERESTGROUP(GROUPID, NAME) VALUES(1,'Database OrganizationCIG');

INSERT INTO COURSEINTERESTGROUP(GROUPID, NAME) VALUES(2,'Advanced Data MiningCIG');

INSERT INTO COURSEINTERESTGROUP(GROUPID, NAME) VALUES(3,'Science of ProgrammingCIG');

--Insert into InterestGroupClub

INSERT INTO InterestGroup\_Club(GROUPCLUBID, NAME, TYPE, DESCRIPTION) VALUES(1, 'Swimming','club','Club for people interested in swimming');

INSERT INTO InterestGroup\_Club(GROUPCLUBID, NAME, TYPE, DESCRIPTION) VALUES(2, 'Dancing','club','Club for people interested in dancing');

INSERT INTO InterestGroup\_Club(GROUPCLUBID, NAME, TYPE, DESCRIPTION) VALUES(3, 'ISA','group','Indian Student Association');

INSERT INTO InterestGroup\_Club(GROUPCLUBID, NAME, TYPE, DESCRIPTION) VALUES(4, 'ASA','group','American Student Association');

INSERT INTO InterestGroup\_Club(GROUPCLUBID, NAME, TYPE, DESCRIPTION) VALUES(5, 'Cricket','club','Club for people interested in cricket');

--Insert into Joins

INSERT INTO JOINS(MEMBERID,GROUPCLUBID,USERNAME,PASSWORD, APPROVALSTATUS) VALUES(1,2,'UN1','PW1', ’N’);

INSERT INTO JOINS(MEMBERID,GROUPCLUBID,USERNAME,PASSWORD, APPROVALSTATUS) VALUES(2,4,'UN2','PW2', ’N’);

INSERT INTO JOINS(MEMBERID,GROUPCLUBID,USERNAME,PASSWORD, APPROVALSTATUS) VALUES(3,2,'UN3','PW3', ’N’);

INSERT INTO JOINS(MEMBERID,GROUPCLUBID,USERNAME,PASSWORD, APPROVALSTATUS) VALUES(4,5,'UN4','PW4', ’N’);

--Insert into JoinsCIG

INSERT INTO JOINSCIG(MEMBERID,GROUPID,USERNAME,PASSWORD, APPROVALSTATUS) VALUES(1,2,'UN5','PW5', ’N’);

INSERT INTO JOINSCIG(MEMBERID,GROUPID,USERNAME,PASSWORD, APPROVALSTATUS) VALUES(2,1,'UN6','PW6', ’N’);

INSERT INTO JOINSCIG(MEMBERID,GROUPID,USERNAME,PASSWORD, APPROVALSTATUS) VALUES(3,3,'UN7','PW7', ’N’);

--Insert into Course\_Has

INSERT INTO COURSE\_HAS(COURSEID,GROUPID) VALUES(425,1);

INSERT INTO COURSE\_HAS(COURSEID,GROUPID) VALUES(536,3);

--Insert into DiscussionForum

INSERT INTO DISCUSSIONFORUM(FORUMID,FORUMNAME,CREATEDBY) VALUES (1,'CS 425 Discussion Forum', 1);

INSERT INTO DISCUSSIONFORUM(FORUMID,FORUMNAME,CREATEDBY) VALUES (2,'CS 536 Discussion Forum', 3);

INSERT INTO DISCUSSIONFORUM(FORUMID,FORUMNAME,CREATEDBY) VALUES (3,'CS 587 Discussion Forum', 1);

INSERT INTO DISCUSSIONFORUM(FORUMID,FORUMNAME,CREATEDBY) VALUES (4,'Swimming club discussion forum', 1);

INSERT INTO DISCUSSIONFORUM(FORUMID,FORUMNAME,CREATEDBY) VALUES (5,'Dancing club discussion forum', 3);

INSERT INTO DISCUSSIONFORUM(FORUMID,FORUMNAME,CREATEDBY) VALUES (6,'CS 522 Discussion Forum', 3);

--Insert into CourseInterestGroup\_Has

INSERT INTO COURSEINTERESTGROUP\_HAS(FORUMID,GROUPID) VALUES(1,1);

INSERT INTO COURSEINTERESTGROUP\_HAS(FORUMID,GROUPID) VALUES(2,3);

INSERT INTO COURSEINTERESTGROUP\_HAS(FORUMID,GROUPID) VALUES(6,2);

--Insert into InterestGroupClub\_Has

INSERT INTO INTERESTGROUPCLUB\_HAS(FORUMID,GROUPCLUBID) VALUES(4,1);

INSERT INTO INTERESTGROUPCLUB\_HAS(FORUMID,GROUPCLUBID) VALUES(5,2);

--Insert into ModeratesCIG

INSERT INTO MODERATESCIG(MODID,GROUPID) VALUES(1,3);

INSERT INTO MODERATESCIG(MODID,GROUPID) VALUES(1,2);

INSERT INTO MODERATESCIG(MODID,GROUPID) VALUES(2,1);

--Insert into ModeratesIGC

INSERT INTO MODERATESIGC(MODID,GROUPCLUBID) VALUES(1,5);

INSERT INTO MODERATESIGC(MODID,GROUPCLUBID) VALUES(1,2);

INSERT INTO MODERATESIGC(MODID,GROUPCLUBID) VALUES(2,4);

--Insert into Topic

INSERT INTO TOPIC(TOPICID,TOPICNAME,FORUMID) VALUES(1,'PL SQL',1);

INSERT INTO TOPIC(TOPICID,TOPICNAME,FORUMID) VALUES(2,'JDBC',1);

INSERT INTO TOPIC(TOPICID,TOPICNAME,FORUMID) VALUES(3,'HW3',1);

INSERT INTO TOPIC(TOPICID,TOPICNAME,FORUMID) VALUES(4,'PHP',1);

INSERT INTO TOPIC(TOPICID,TOPICNAME,FORUMID) VALUES(5,'BOLLYWOOD DANCE',4);

INSERT INTO TOPIC(TOPICID,TOPICNAME,FORUMID) VALUES(6,'SWIM LIKE A PRO',4);

--Insert into Criteria

INSERT INTO CRITERIA

(CRITERIANUMBER, ACTION, DESCRIPTION, POINTS)

VALUES

(1,'CREATED','USER CREATED AN INTEREST GROUP OR CLUB OR DISCUSSIONFORUM',10);

INSERT INTO CRITERIA

(CRITERIANUMBER, ACTION, DESCRIPTION, POINTS)

VALUES

(2,'JOINED','USER JOINED AN INTEREST GROUP OR CLUB OR DISCUSSIONFORUM',5);

INSERT INTO CRITERIA

(CRITERIANUMBER, ACTION, DESCRIPTION, POINTS)

VALUES

(3,'COMMENTED','USER COMMENTED IN AN INTEREST GROUP OR IN A CLUB OR IN A DISCUSSIONFORUM',2);

--Insert into Comments

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS,DATEANDTIME) VALUES(1,1,2,'COMMENT 1',CURRENT\_TIMESTAMP);

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS,DATEANDTIME) VALUES(2,2,2,'COMMENT 2',CURRENT\_TIMESTAMP);

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS,DATEANDTIME) VALUES(3,1,2,'COMMENT 3',CURRENT\_TIMESTAMP);

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS,DATEANDTIME) VALUES(4,2,2,'COMMENT 4',CURRENT\_TIMESTAMP);

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS,DATEANDTIME) VALUES(5,4,1,'COMMENT 5',CURRENT\_TIMESTAMP);

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS,DATEANDTIME) VALUES(6,2,1,'COMMENT 6',CURRENT\_TIMESTAMP);

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS) VALUES(7,3,1,'COMMENT 7');

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS) VALUES(8,2,3,'COMMENT 8');

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS) VALUES(9,1,3,'COMMENT 9');

INSERT INTO COMMENTS(COMMENTID,COMMENTEDBY,TOPICID,COMMENTS) VALUES(10,1,4,'COMMENT 10');

**Test Cases:**

**Test Case 1**

**Insert Operation:**

1. Login as site wide administrator.
2. Click on Insert Button on page WelcomeToBackEnd.php.
3. Displays all the tables from the Database.
4. Click on the table you want to perform insert operation.
5. Enter the row values you want to insert into the table.
6. Click on submit
7. It displays message You have successfully inserted data and to insert more rows, click here.

**Case 1:**

1. Click on Table Course.
2. Insert row 679,’Topics in Computer Science’
3. Click on submit
4. It displays You have successfully inserted data and to insert more rows, click here.

Expected Outcome:1 row inserted

Actual Outcome:1 row inserted

**Case 2:**

1. 1.Click on table Faculty.
2. 2.Insert row -8,2009,'Professor','Purdue','Project 7'
3. 3.Click on submit.
4. 4.It displays error integrity constraint violated.

Expected Outcome: Database error integrity constraint violated.

Actual Outcome: Database error integrity constraint violated.

**Test Case 2**

**Delete Operation:**

1. Click on Delete Button on page WelcomeToBackEnd.php.

2. It displays all tables from the database.

3. Click on table you want to perform Delete Operation.

4. It is displays Select \* from <tablename>

5. Select the row you want to delete.

6. On clicking submit that row will be deleted from the database.

**Case 1:**

1. 1.Click on table teaches
2. It displays select \* from teaches.
3. 3.select a row to delete 4—425
4. 4.On clicking submit the row will be deleted.
5. 5.It displays delete successful and go to home page.

Expected Outcome:1 row deleted

Actual Outcome:1 row deleted

**Case 2:**

1. 1.Click on table user\_.
2. 2.It displays select \* from user\_.
3. 3.select a row you want to delete 1,rdatta1@hawk.iit.edu,Rittick Datta,RittickDatta2015,RittickDatt55
4. 4.On clicking submit it will display error Integrity Constraints Violated.

Expected Outcome: Database error Integrity Constraint Violated

Actual Outcome: Database error Integrity Constraint Violated.

**Test Case 3**

**Update Operation:**

1. Click on Update Button on page WelcomeToBackEnd.php.
2. It displays all the tables from the database.
3. Click on table to update.
4. It displays select \* from <tablename>
5. Select a row you want to update.
6. Select a column to update.
7. Then set the new value and click submit.
8. It displays update successful and go to homepage.

**Case 1:**

1. 1.Click on table User\_.
2. 2.It displays select \* from <tablename>.
3. 3.Select the row you want update-1,rdatta1@hawk.iit.edu,Rittick Datta,RittickDatta2015,RittickDatt55
4. 4.Select the column you want to update. Select email column to update.
5. 5.Enter the new value-datta1@gmail.com
6. 6.Click on submit
7. 7.It displays Update Successful and Go to Homepage.

Expected Outcome-1 row updated

Actual Outcome-1 row updated

**Case 2:**

1. 1.Click on table course.
2. 2.It displays select \* from <tablename>.
3. 3.Select the row you want to update-586, SSA
4. 4.Select the column you want to update ID 586
5. 5.Set column value 590
6. 6.On Clicking submit it will display error Integrity Constraint violated.

Expected Outcome-Integrity Constraint Violated.

Actual Outcome-Integrity Constraint Violated

**Authorization and Privileges**

**Test Case 1**

1. Enter the credentials to login.
2. Once the user is logged in it takes to page Profile.php
3. On profile.php there is a search box
4. There you have to enter the UserId you want to search.
5. On clicking submit it takes you searchPeople.php.
6. It will show the detail of the user you searched for.
7. There are 3 fields “Show GPA”, “Show Group Club” and “Show Course Interest Group”.
8. If student has value N in the above mentioned fields, that indicates those details are private.
9. If the student has value Y in the information it means that information is public.
10. If show GPA is ‘N’, then it will show ----Private Information------
11. There are 2 buttons labeled “Course Interest Groups” and “Interest Group or Club”. If the user has ‘N’ in “Show Group Club” and “Show Course Interest Group” then the above mentioned buttons will be disabled and you cannot see that information.
12. If the user has ‘Y’ in “Show Group Club” and “Show Course Interest Group” then you can click on respective buttons and view that information.

Expected Outcome – Private information shouldn’t be displayed if it is marked as private.

Actual Outcome – Private information is displayed only if it is made public.

**Test Case 2**

1. Upon logging in with Administrator credentials it takes to WelcomeToBackEnd.php
2. There is a button labeled Assign Moderators to Course Interest Group which takes us to AssignModerator.php
3. Then select a course from the drop down list to which you want to assign a Moderator.
4. Upon clicking select button, it takes you to AssignModeratorsPOINTS5.php.
5. Select group of that particular course from the drop down list.
6. Then it will take you to AssignModerators2.php
7. Click on the drop down list to select TA.
8. Click on Assign As moderator button.

Expected Outcome – Drop down list should display only those user ID’s who happen to be the TA of that course, and if he/she is not already assigned as moderator of that group.

Actual Outcome – drop down list displayed only TA Ids only if he is not already assigned as a moderator of the group.

**Test Case 3**

1. On logging with Administrator credentials it takes WelcomeToBackEnd.php
2. There is a button to Assign Moderators to interest group club on page AssignModerator.php
3. On clicking that button it takes you to AssignModToIGC.php.
4. Select the interest group or club and click submit.
5. Upon clicking submit AssignModToIGC\_2.php page is displayed.
6. Select an Id you want to assign as Moderator of that group.
7. On clicking submit it displays Data is Submitted and Go to homepage

Expected Outcome – The drop down list to choose user ID should display all the Id’s and site wide administrator should be able to assign moderator to the selected group/club.

**General Processes**

**Test Case 1**

1. 1.Login in with user credentials and upon login in applications takes you to Profile.php.
2. 2.There is a button Register to Course Interest Group. Upon clicking it takes you CourseInterestGroup.php.
3. 3.Select a course interest group and click on register.
4. 4.A request will be sent to the administrator for approval [moderator can either approve or deny the request].
5. Once the request is approved by the administrator an email will be sent to the user with login credentials to the group.
6. If the request is denied, an email will be sent to the user to convey the same.

Expected Outcome – User can view group information only if his request is approved by the moderator.

Actual Outcome – User can view group information only if his request is approved by the moderator.

**Test Case 2**

1. Login to the site using your credentials.
2. Click on View My Course Interest Groups/View my Interest Groups/Clubs
3. You should be redirected to the page where you can see a list of course Interest groups/other groups/clubs which you are a part of.
4. Select a group and enter your group login credentials.
5. Click on View Discussion Forum.
6. Click on desired group Id
7. Click on View All Topics and select a topic from the list.
8. Click On Go to Topic Comments
9. Enter comment in the text area and click on Comment.

Expected Outcome – Comment should be added successfully.

Actual Outcome – Comment is added successfully.

**Test Case 3**

1. Faculty logs in using his credentials.
2. Upon clicking Manage my Course it displays the course Id and Title.
3. A list of course the faculty teach appears.
4. Click on the course you want to assign TA to.
5. Click on drop down list.
6. It displays a list of student Ids who have not enrolled to that course.
7. Select a student you want to assign as TA and click Assign.
8. The message displayed is You have successfully assigned TA.

Expected Outcome – Faculty should be able to assign TA only if he is not enrolled into that course.

Actual Outcome – Faculty can assign a student as TA only if he is not enrolled into that course.

**Test Case 4**

1. Login to the site using your credentials.
2. Click on View My Course Interest Groups/View my Interest Groups/Clubs
3. You should be redirected to the page where you can see a list of course Interest groups/other groups/clubs which you are a part of.
4. Select a group and enter your group login credentials.
5. Click on Create Discussion Forum.
6. Enter forum name and click on create button.

Expected Outcome – User should be able to create new discussion forum.

Actual Outcome – User is able to create new discussion forum.

**Test Case 5**

1. Login with moderator credentials. On Profile.php click on Filter Course Interest Group Comments.
2. A list of groups which you moderate will appear.
3. Select a group
4. Select desired filters and click on View Comments button.
5. Comments added to selected group should display.
6. Click on Edit button. Edit the comment and click Update button.
7. Comment should be successfully updated.
8. Click on Delete button to delete the comment.

Expected Outcome – Moderator should be able to modify or filter the comments.

Actual Outcome – Moderator is able to modify and filter comments.