

Team Project

Team Name : InstaBook

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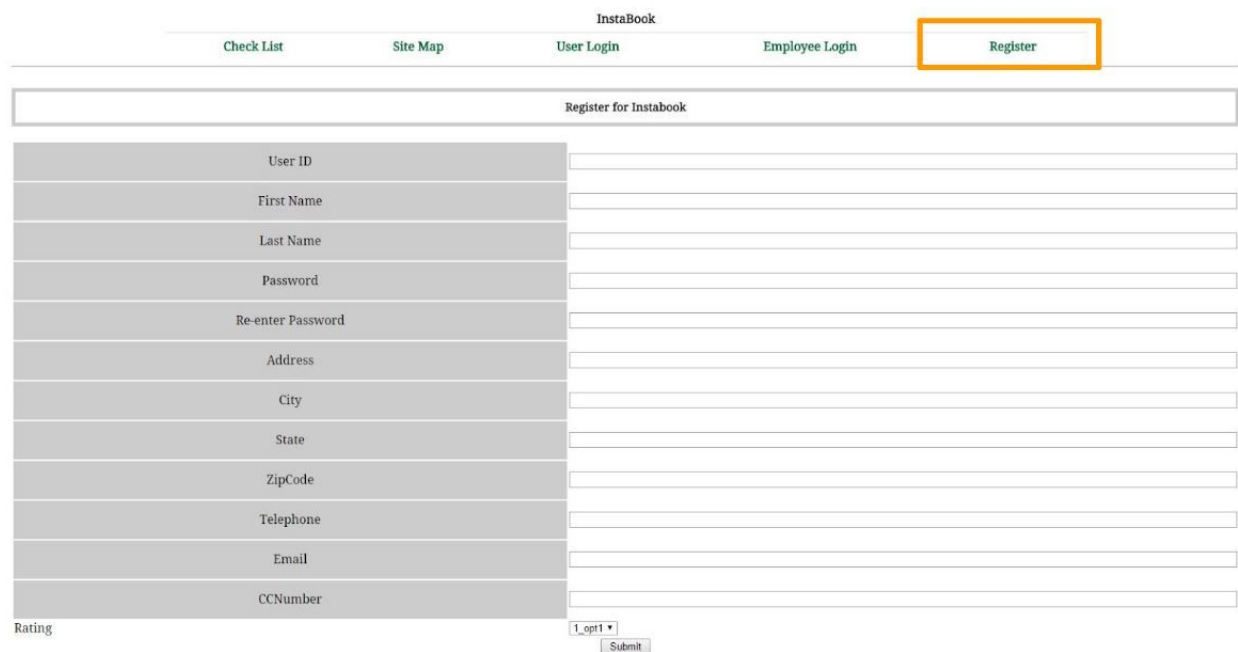
User's Guide

The Site Map page contains links to every page.

From the Site Map page, you can log out(if logged in). You can also log in as either a user or an employee. For either User or Employee, you need the UserId and their password

In the Non-User Specific Pages:

Register Page



The screenshot shows the InstaBook web application interface. At the top, there is a navigation bar with the title "InstaBook" and five links: "Check List", "Site Map", "User Login", "Employee Login", and "Register". The "Register" link is highlighted with an orange border. Below the navigation bar is a form titled "Register for Instabook". The form contains a table with 12 rows, each with a label and a corresponding input field. The labels are: "User ID", "First Name", "Last Name", "Password", "Re-enter Password", "Address", "City", "State", "ZipCode", "Telephone", "Email", and "CCNumber". At the bottom left of the form, there is a "Rating" label. At the bottom right, there is a dropdown menu with "1_opt1" selected and a "Submit" button.

InstaBook				
Check List	Site Map	User Login	Employee Login	Register
Register for Instabook				
User ID	<input type="text"/>			
First Name	<input type="text"/>			
Last Name	<input type="text"/>			
Password	<input type="text"/>			
Re-enter Password	<input type="text"/>			
Address	<input type="text"/>			
City	<input type="text"/>			
State	<input type="text"/>			
ZipCode	<input type="text"/>			
Telephone	<input type="text"/>			
Email	<input type="text"/>			
CCNumber	<input type="text"/>			
Rating	1_opt1 ▼			
Submit				

Non-users can register on Instabook. The register page can be accessed by clicking "Register" button on the navigation.

Login Page (Sign in)

InstaBook

Check List

Site Map

User Login

Employee Login

Register

User Login

UserID

Password

Login

User can log in as a user by using own userId and password on user login page. The user can access the login page by clicking the “User Login” on the navigation. If the userId and password do not match, the user can not log in, and the user will see the message which shows the id and password do not match.

Logout Page (Sign out)

InstaBook

Check List

Site Map

Logout

If a user logged in, the user can see “Logout” button on the navigation. The user can logout by clicking the button.

On personal page :

User Specific Pages:

- User Personal Page
- User Messaging
- View Advertisements and Manage Transactions
- View Joined Groups Page
- Friend and Group Requests

The user can access owned personal page through the link on Site Map page.

1. Post a message on personal page.

Hello Clark! Here is your personal page:

Make a post

Content:
I like instabook.

Submit

On the personal page, there is textarea on the top of the page. The user can post any message through this form. After posting a message, the user can see the post the below of this form as below.

Edit	Author	DateTime	Content	LikeCount	CommentCount
Delete Modify	Superman	2016-12-09 02:11:52	I like instabook.	0	0
Write a comment		<input type="text"/>		Submit comment	
Do you like this post?		Like this post			
Delete Modify	Superman	2016-12-08 03:42:09	hello	1	1
Write a comment		<input type="text"/>		Submit comment	
You like this post.		Unlike this post			
Superman		ss	LikeCount: 0	2016-12-08 03:42:15	
Do you like this comment?		Like this comment			
Delete this comment		Modify this comment			

2. Comment on a post on personal page.

Edit	Author	DateTime	Content	LikeCount	CommentCount
Delete Modify	Superman	2016-12-09 02:11:52	I like instabook.	0	0
Write a comment		<input type="text" value="Why do you like Instabook?"/>		Submit comment	

Under the message, there is an input form to write comment on the post. Type any comment and Click the "Submit comment" button to submit it.

Edit	Author	DateTime	Content	LikeCount	CommentCount																	
<input type="button" value="Delete"/> <input type="button" value="Modify"/>	Superman	2016-12-09 02:11:52	I like instabook.	0	1																	
Write a comment		<input type="text"/>			<input type="button" value="Submit comment"/>																	
Do you like this post?		<input type="button" value="Like this post"/>																				
<table border="1"> <tbody> <tr> <td>Superman</td> <td></td> <td>Why do you like Instabook?</td> <td>LikeCount: 0</td> <td>2016-12-09 02:19:46</td> </tr> <tr> <td colspan="2">Do you like this comment?</td> <td colspan="4"><input type="button" value="Like this comment"/></td> </tr> <tr> <td colspan="3"><input type="button" value="Delete this comment"/></td> <td colspan="3"><input type="button" value="Modify this comment"/></td> </tr> </tbody> </table>						Superman		Why do you like Instabook?	LikeCount: 0	2016-12-09 02:19:46	Do you like this comment?		<input type="button" value="Like this comment"/>				<input type="button" value="Delete this comment"/>			<input type="button" value="Modify this comment"/>		
Superman		Why do you like Instabook?	LikeCount: 0	2016-12-09 02:19:46																		
Do you like this comment?		<input type="button" value="Like this comment"/>																				
<input type="button" value="Delete this comment"/>			<input type="button" value="Modify this comment"/>																			

If the user write a comment on the post, the comment will show below the post, and “CommentCount” of the post will increase by 1.

3. Like a post and on a comment on personal page.

Edit	Author	DateTime	Content	LikeCount	CommentCount																	
<input type="button" value="Delete"/> <input type="button" value="Modify"/>	Superman	2016-12-09 02:11:52	I like instabook.	0	1																	
Write a comment		<input type="text"/>			<input type="button" value="Submit comment"/>																	
Do you like this post?		<input type="button" value="Like this post"/>																				
<table border="1"> <tbody> <tr> <td>Superman</td> <td></td> <td>Why do you like Instabook?</td> <td>LikeCount: 0</td> <td>2016-12-09 02:19:46</td> </tr> <tr> <td colspan="2">Do you like this comment?</td> <td colspan="4"><input type="button" value="Like this comment"/></td> </tr> <tr> <td colspan="3"><input type="button" value="Delete this comment"/></td> <td colspan="3"><input type="button" value="Modify this comment"/></td> </tr> </tbody> </table>						Superman		Why do you like Instabook?	LikeCount: 0	2016-12-09 02:19:46	Do you like this comment?		<input type="button" value="Like this comment"/>				<input type="button" value="Delete this comment"/>			<input type="button" value="Modify this comment"/>		
Superman		Why do you like Instabook?	LikeCount: 0	2016-12-09 02:19:46																		
Do you like this comment?		<input type="button" value="Like this comment"/>																				
<input type="button" value="Delete this comment"/>			<input type="button" value="Modify this comment"/>																			

The user can like each of posts and comments by clicking “Like” buttons. When the user clicks, the button will be changed as “Unlike” button, and its “LikeCount” will increase by 1.

4. Unlike a post and on a comment on personal page.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<input type="button" value="Delete"/> <input type="button" value="Modify"/>	Superman	2016-12-09 02:11:52	I like instabook.	1	1
Write a comment		<input type="text"/>			<input type="button" value="Submit comment"/>
You like this post.		<input type="button" value="Unlike this post"/>			
Superman		Why do you like Instabook?	LikeCount: 1	2016-12-09 02:19:46	
You like this comment.		<input type="button" value="Unlike this comment"/>			
<input type="button" value="Delete this comment"/>		<input type="button" value="Modify this comment"/>			

The user can unlike each of posts and comments by clicking “Unlike” buttons. When the user clicks, the button will be changed back as “Like” button, and its “LikeCount” will decrease by 1. The user can like it again.

5. Remove / Modify a post on personal page.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<input type="button" value="Delete"/> <input type="button" value="Modify"/>	Superman	2016-12-09 02:11:52	I like instabook.	1	1
Write a comment		<input type="text"/>			<input type="button" value="Submit comment"/>
You like this post.		<input type="button" value="Unlike this post"/>			

If a user is author of the post, “Delete” and “Modify” button show up, otherwise the user can not see the buttons. When the user clicks “Delete” button, the post will be removed.

When the user clicks “Modify” button, the user can see a input form to modify this post as below.

Modify this post

Content:

I like instabook.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<input type="button" value="Delete"/> <input type="button" value="Modify"/>	Superman	2016-12-09 02:11:52	I like instabook.	1	1
Write a comment		<input type="text"/>			<input type="button" value="Submit comment"/>
You like this post.		<input type="button" value="Unlike this post"/>			

6. Remove / Modify a comment on personal page.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<input type="button" value="Delete"/> <input type="button" value="Modify"/>	Superman	2016-12-09 02:11:52	I like instabook.	1	1
Write a comment		<input type="text"/>			<input type="button" value="Submit comment"/>
You like this post.		<input type="button" value="Unlike this post"/>			
Superman		Why do you like Instabook?	LikeCount: 1	2016-12-09 02:19:46	
You like this comment.		<input type="button" value="Unlike this comment"/>			
<input type="button" value="Delete this comment"/>		<input type="button" value="Modify this comment"/>			

If a user is author of the comment, “Delete” and “Modify” button show up, otherwise the user can not see the buttons. When the user clicks “Delete” button, the comment will be removed and the “CommentCount” of the post will decrease by 1. When the user clicks “Modify” button, the user can see a input form to modify this comment as below.

On group pages :

User Specific Pages:

- User Personal Page
- User Messaging
- View Advertisements and Manage Transactions
- View Joined Groups Page
- Friend and Group Requests

The user can access his/her joined group pages through the link on Site Map page. This page will show the list of his/her joined groups as below. By clicking name of groups, the user can access the group page.

Hello Clark! Here are your joined groups. Click the name of group where you want to visit.

No.	The owner of the group	Name of Group	Joined Date	Group Type
1	Superman	Computing Club	2016-12-02 18:14:14	cse
2	Superman	Rocketry	2016-12-02 18:14:14	Club
3	HiMike	We like books	2016-12-02 18:14:14	Club
4	Strinter	Wine	2016-12-07 00:51:17	Club
5	Ironman	Cars	2016-12-02 18:14:14	Club
6	Strinter	Prankster	2016-12-07 01:01:55	jokes

1. Change name of group page.

Hello Clark!

Group Name : Computing Club

Change the name of group :

Enter

Group Owner : Superman (Clark Kent)

Total number of post of this group : 0

If a user is owner of the group, the user can change the name of the group.

2. Post a message on group page.

Make a post on the group page

Content:

Hello, This is the first message of this group.

Submit

Edit	Author	DateTime	Content	LikeCount	CommentCount
------	--------	----------	---------	-----------	--------------

On the group page, there is textarea on the top of the page. The user can post any message through this from. After posting a message, the user can see the post the below of this form as below.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<div>Delete</div> <div>Modify</div>	Superman	2016-12-09 03:07:12	Hello, This is the first message of this group.	0	0
Write a comment		<input type="text"/>			<div>Submit comment</div>
Do you like this post?		<div>Like this post</div>			

2. Comment on a post on group page.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<div>Delete</div> <div>Modify</div>	Superman	2016-12-09 03:07:12	Hello, This is the first message of this group.	0	0
Write a comment		<input type="text" value="This is the first comment!"/>			<div>Submit comment</div>
Do you like this post?		<div>Like this post</div>			

Under the message, there is an input form to write comment on the post. Type any comment and Click the "Submit comment" button to submit it.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<div>Delete</div> <div>Modify</div>	Superman	2016-12-09 03:07:12	Hello, This is the first message of this group.	0	1
Write a comment		<input type="text"/>			<div>Submit comment</div>
Do you like this post?		<div>Like this post</div>			
Superman			This is the first comment!	LikeCount: 0	2016-12-09 03:08:52
Do you like this comment?		<div>Like this comment</div>			
<div>Delete this comment</div>		<div>Modify this comment</div>			

If the user write a comment on the post, the comment will show below the post, and “CommentCount” of the post will increase by 1.

3. Like a post and on a comment on group page.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<div>Delete</div> <div>Modify</div>	Superman	2016-12-09 03:07:12	Hello, This is the first message of this group.	0	1
Write a comment		<input type="text"/>			<div>Submit comment</div>
Do you like this post?		<div>Like this post</div>			
Superman			This is the first comment!	LikeCount: 0	2016-12-09 03:08:52
Do you like this comment?		<div>Like this comment</div>			
<div>Delete this comment</div>		<div>Modify this comment</div>			

The user can like each of posts and comments by clicking “Like” buttons. When the user clicks, the button will be changed as “Unlike” button, and its “LikeCount” will increase by 1.

4. Unlike a post and on a comment on group page.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<input type="button" value="Delete"/> <input type="button" value="Modify"/>	Superman	2016-12-09 02:11:52	I like instabook.	1	1
Write a comment <input type="text"/> <input type="button" value="Submit comment"/>					
You like this post. <input type="button" value="Unlike this post"/>					
Superman		Why do you like Instabook?	LikeCount: 1	2016-12-09 02:19:46	
You like this comment. <input type="button" value="Unlike this comment"/>					
<input type="button" value="Delete this comment"/> <input type="button" value="Modify this comment"/>					

The user can unlike each of posts and comments by clicking “Unlike” buttons. When the user clicks, the button will be changed back as “Like” button, and its “LikeCount” will decrease by 1. The user can like it again.

5. Remove / Modify a post on group page.

Edit	Author	DateTime	Content	LikeCount	CommentCount
<input type="button" value="Delete"/> <input type="button" value="Modify"/>	Superman	2016-12-09 03:07:12	Hello, This is the first message of this group.	0	1
Write a comment <input type="text"/> <input type="button" value="Submit comment"/>					
Do you like this post? <input type="button" value="Like this post"/>					
Superman		This is the first comment!	LikeCount: 0	2016-12-09 03:08:52	
Do you like this comment? <input type="button" value="Like this comment"/>					
<input type="button" value="Delete this comment"/> <input type="button" value="Modify this comment"/>					

If a user is author of the post, “Delete” and “Modify” button show up, otherwise the user can not see the buttons. When the user clicks “Delete” button, the post will be removed. When the user clicks “Modify” button, the user can see a input form to modify this post as below.

Modify this post

Content:

Hello, This is the first message of this group.
I'm going to modify this post!

Submit modified post

Cancel modify post

Edit	Author	DateTime	Content	LikeCount	CommentCount
<div>Delete</div> <div>Modify</div>	Superman	2016-12-09 03:07:12	Hello, This is the first message of this group.	0	1
Write a comment		<input type="text"/>			<div>Submit comment</div>
Do you like this post?		<div>Like this post</div>			

6. Remove / Modify a comment on group page.

Edit

Author

DateTime

Content

LikeCount

CommentCount

Delete

Modify

Superman

2016-12-09 03:07:12

Hello, This is the first message of this group.

0

1

Write a comment

Submit comment

Do you like this post?

Like this post

Superman

This is the first comment!

LikeCount: 0

2016-12-09 03:08:52

Do you like this comment?

Like this comment

Delete this comment

Modify this comment

If a user is author of the comment, “Delete” and “Modify” button show up, otherwise the user can not see the buttons. When the user clicks “Delete” button, the comment will be removed and the “CommentCount” of the post will decrease by 1. When the user clicks “Modify” button, the user can see a input form to modify this comment as below.

To aid in debugging, we have a “View All Accounts” page, which lists all logins, as users, employees, and managers. This page would not exist in actual use of this site.

Users

UserID	Password
Superman	password
Batman	secure
Ironman	password1
Wolffie	password
HiMike	qwer1234
RDay	iohohRas6Nae
m-vaughn	goov1Gu5Kiep
K-D	Iedie4Iquoh
Strinter	jiechuz9OhY
Bace1932	Ief6fooqu
DAanna	1234
C-Song	happyfeet
mcollins	care2cash
arose	dawn4call
jblack	data6bell
efranklin	able1cash
mwells	burn2coat
carmstrong	aged6area
Iross	been7beer

The “View Best Seller List” page lists the best selling products being advertised on the site.

Best Sellers

Item Name	Units Sold
Chilli Dog	12
Rocket Engine	9
Random Book	8
BMW 3-Series	4
EMachine 3	4

A comprehensive list of all advertisements listed on the website can be viewed using the “View all Advertisements” link.

All Advertisements

Item Name	Company	Managed By	Preference Category	Description	Price	Units Available
BMW 3-Series	BMW Motorsports	r-cataldo	Cars	Very fast.	32000.00	42
Whoopie Cushion	Comedic Toys	t-smith	Comedy	Hilarity Ensues	9.99	5
Rocket Engine	Rockets R Us	joshk	Space	Now Discounted Surplus Model Rocket Size M	20.00	150
Dictionary	The Book Store	joshk	Books	New 2016 edition	49.99	20
Rock	Valuble Old Stuff	r-cataldo	Antiques	George Washington threw this rock at John Adams!	20000.00	3
EMachine 3	Circuit City	Hearess	Computers	Top of the line from 2003	199.99	11
Hockey Stick	Sporting Goods	AndyB	Sports	Old style wooden handle	19.99	3
Chilli Dog	Hot Dog City	c-andrea	Food	Prepackaged ready to eat	2.50	197
Random Book	The Book Store	joshk	Books	We send you a random book from the pile!	5.00	50
Bookshelf	Home Depot	pharris	Carpentry	Ready to assemble	39.99	19
Running Shoes	Sporting Goods	r-cataldo	Jogging	The most comfortable shoes around.	35.99	65
Orange Parachute	Sporting Goods	AndyB	Skydiving	Comes with a backup too!	99.99	46
Fish-Eye Lens	Cannon	AndyB	Photography	The perfect lens for the perfect shot.	150.00	76
Night Vision Goggles	Cannon	AndyB	Ghost hunting	Never trip in the dark again!	199.95	14
Telescope	Circuit City	AndyB	Astronomy	Learn more about the planets.	250.00	22
Noise-Cancelling Headphones	Bose	AndyB	Computers	Get that homework done in peace!	89.99	93
Red T-Shirt	Nike	AndyB	Cars	Has a nike check on it.	80.00	99
Hammer	BMW Motorsports	AndyB	Carpentry	The right tool for the job.	15.00	56
Ice Pack	Supermarket7	pharris	Rugby	Keep things cold	15.00	88
Oxygen Tank	Sporting Goods	c-andrea	Scuba diving	Compressed oxygen!	98.99	56
Wireless Mouse	Logitech	pharris	Computers	Over 50 LED lights!	89.99	90

The “View all Transactions” page shows a list of all purchases made by users. Further analysis of these transactions can be seen in the “advertisement analytics” page, but it can only be accessed by managers.

All Transactions

User	Item	Units Purchased	Date Purchased
Superman	BMW 3-Series	1	2016-12-02 18:14:14
Batman	Whoopie Cushion	1	2016-12-02 18:14:14
mwells	Wireless Mouse	1	2016-12-09 00:30:43
Wolfe	BMW 3-Series	2	2016-12-02 18:14:14
HiMike	EMachine 3	1	2016-12-02 18:14:14
RDay	Chilli Dog	9	2016-12-02 18:14:14
m-vaughn	Random Book	8	2016-12-02 18:14:14
K-D	Bookshelf	1	2016-12-02 18:14:14
Strinter	EMachine 3	3	2016-12-02 18:14:14
Bace1932	Rocket Engine	9	2016-12-02 18:14:14
tlong	Hockey Stick	1	2016-12-09 00:31:45
tlong	Night Vision Goggles	1	2016-12-09 00:31:39
tlong	Running Shoes	2	2016-12-09 00:31:28
tlong	Ice Pack	1	2016-12-09 00:31:33
ibennett	Chilli Dog	3	2016-12-09 00:32:15
mwells	Bookshelf	1	2016-12-09 00:30:30
ibennett	BMW 3-Series	1	2016-12-09 00:32:20
mwells	Noise-Cancelling Headphones	2	2016-12-09 00:30:35

In the User Specific Pages... To use these you must be logged in as a User.

In The User Personal Page, users are able to make as post on their wall, which can be commented on and liked by users in the database.

Hello Herber! Here is your personal page:

Make a post

Content:

Submit

Edit	Author	DateTime	Content	LikeCount	CommentCount
Delete Modify	Strinter	2016-12-02 18:14:14	I'm going on vacation next week. Super excited.	0	0

Write a comment [Submit comment](#)

Do you like this post? [Like this post](#)

RDay	Don't forget to lock your doors	LikeCount: 0	2016-12-02 18:14:14
You like this comment.	Unlike this comment		
K-D	Going anywhere nice?	LikeCount: 0	2016-12-02 18:14:14
Do you like this comment?	Like this comment		

The User Messaging page allows messages to be sent between users.

You can delete messages that you have received by selecting the messages to be deleted and then clicking the "Delete Selected Messages" button.

Hello Herber! Here are your messages:

Delete?	Sender	DateTime	Subject	Message
<input type="checkbox"/>	Flong1987	2016-12-02 18:14:14	party	are you going to the party this weekend?
<input checked="" type="checkbox"/>	Ironman	2016-12-02 18:14:14	Music	More cowbell. always.
<input type="checkbox"/>	Superman	2016-12-07 01:10:32	Stop	Stop starting comments in the subject....

[Delete Selected Messages](#)

Alternatively, you can send a message by selecting the User to send to, using the drop down menu, typing in a Subject, a Message, and then clicking the "Send Message" Button.

Send a Message

To:

Subject:

Message:

hello, how are you doing?

In The View Advertisements and Manage Transactions page, users can view a personalized item suggestion list, view suggestions based on past transactions, make new transactions, and view their personal account history. The UI options for these operations can be seen below.

Personalized item suggestion list

Based on your personal preferences of Computers, Sports:

Item Name	Company	Preference Category	Description	Price	Units Available
EMachine 3	Circuit City	Computers	Top of the line from 2003	199.99	11
Noise-Cancelling Headphones	Bose	Computers	Get that homework done in peace!	89.99	93
Wireless Mouse	Logitech	Computers	Over 50 LED lights!	89.99	90
Hockey Stick	Sporting Goods	Sports	Old style wooden handle	19.99	3

Suggestion List based on past transactions

Item Name	Company	Preference Category	Description	Price	Units Available
EMachine 3	Circuit City	Computers	Top of the line from 2003	199.99	11

Record a Transaction

Item:
Amount to Purchase:

Your past Transaction history

Item Name	Price	Units Purchased	Date Purchased
EMachine 3	199.99	3	2016-12-02 18:14:14

In The View Joined Groups Page, users can view the groups that they are a part of, then follow the corresponding link to get to the group's page. The UI for this page is seen below.

Hello Herber! Here are your joined groups. Click the name of group where you want to visit.

No.	The owner of the group	Name of Group	Joined Date	Group Type
1	Batman	Stuff	2016-12-02 18:14:14	Organization
2	HiMike	We like books	2016-12-06 23:31:54	Club
3	Sprinter	Cheese	2016-12-02 18:14:14	Organization
4	Sprinter	Wine	2016-12-02 18:14:14	Club

The "Friend and Group Requests" page is the page where you can manage who is in a group, and who is a friend.

You can see Friend requests from people that want to be your friend. To accept a request, select the requests you want to accept and be friends with that user, and then click the "Accept selected friend requests" button.

Waiting Friend Requests

Accept?	Sender	DateTime
<input checked="" type="checkbox"/>	Bace1932	2016-12-09 00:27:55
<input type="button" value="Accept selected friend requests"/>		

You can send a friend request by selecting a User from the drop down menu, and clicking the "Send Request" button.

Send a friend request

To:

You can see a list of your current friends, and you can unfriend people you no longer want to be friends with. To do so, select the users to unfriend, and click the "UnFriend selected friends" button.

Current Friends

Unfriend?	UserName	Real Name	Friends Since
<input type="checkbox"/>	Superman	Clark Kent	2016-12-06 23:17:36
<input type="checkbox"/>	Batman	Bruce Wayne	2016-12-06 22:53:35
<input checked="" type="checkbox"/>	Flong1987	Kerry Durst	2016-12-02 18:14:14
<input type="button" value="UnFriend selected friends"/>			

You can see the friend requests you've sent to users that haven't yet been accepted, and delete them if you no longer want to request to befriend a user. To do so, select the requests, and click the "Delete selected sent friend requests" button.

Current Sent Pending Friend Requests

Delete?	Recipient	DateTime
<input type="checkbox"/>	HiMike	2016-12-06 23:12:29
<input checked="" type="checkbox"/>	Bace1932	2016-12-06 23:11:26
<input type="button" value="Delete selected sent friend requests"/>		

In a similar fashion as friends, you can manipulate group requests. You can accept received group join requests by selecting them, and clicking the "Accept selected group requests" button.

Current Received Pending Group Join Requests

Accept?	Group	DateTime
<input type="checkbox"/>	bandersnatch	2016-12-09 00:36:23
Accept selected group requests		

You can delete group join requests you've sent but haven't yet been accepted into the group. To do this, select the group requests to delete, and click the "Recind selected group requests" button.

Current Sent Pending Group Join Requests

Recind?	Group	DateTime
<input type="checkbox"/>	Rocketry	2016-12-06 23:55:16
Recind selected group requests		

You can see which groups you are a part of, but do not own. You can also leave a group, by selecting the groups you no longer wish to be a part of, by selecting them and clicking the "Leave selected groups" button.

Groups You're in (but don't own)

Leave Group?	Group Name	Type	Join Date
<input checked="" type="checkbox"/>	Stuff	Organization	2016-12-02 18:14:14
<input type="checkbox"/>	We like books	Club	2016-12-06 23:31:54
Leave selected groups			

You can also see the groups you own, and manage the members. To do any of these things, you choose everything you want to do, and then hit the "Update Group" button. You can delete the group from here by selecting it, and then hitting the "Update Group" button, and all other changes won't matter.

My groups (You OWN these)

Cheese (Organization)	<input checked="" type="checkbox"/> Delete Group?	<input type="checkbox"/> Rename Group?	<input type="text" value="Cheese"/>	<input type="button" value="Update Group"/>
-----------------------	---	--	-------------------------------------	---

Current Users

Remove from Group?	User Name
<input type="checkbox"/>	Ironman

Pending Requests waiting on approval

Accept?	User Name
<input type="checkbox"/>	HiMike
<input type="checkbox"/>	Superman

Pending requests you sent

Recind offer?	User Name
<input type="checkbox"/>	Feemphynead1956
<input type="checkbox"/>	Bace1932
<input type="checkbox"/>	ibennett

Send New Group Request

<input type="text" value="adunn"/>	<input type="checkbox"/> Send Request?
------------------------------------	--

You can rename the group by selecting Rename Group, typing in a new group name, and hitting the "Update Group" Button.

My groups (You OWN these)

Cheese (Organization) ☐ Delete Group? ☒ Rename Group? Crackers

Current Users

Remove from Group?	User Name
<input type="checkbox"/>	Ironman

Pending Requests waiting on approval

Accept?	User Name
<input type="checkbox"/>	HiMike
<input type="checkbox"/>	Superman

Pending requests you sent

Recind offer?	User Name
<input type="checkbox"/>	Feemphynead1956
<input type="checkbox"/>	Bace1932
<input type="checkbox"/>	ibennett

Send New Group Request

adunn

You can see the users in the group, and remove some from the group if you don't want them in the group anymore. To do this, select the users to remove, and hit the "Update Group" button.

My groups (You OWN these)

Cheese (*Organization*) ☐ Delete Group? ☐ Rename Group? Cheese

Update Group

Current Users

Remove from Group?

User Name

☐

Ironman

☒

Bace1932

Pending Requests waiting on approval

Accept?

User Name

☐

HiMike

☐

Superman

Pending requests you sent

Recind offer?

User Name

☐

m-vaughn

☐

ibennett

Send New Group Request

adunn ▼

☐ Send Request?

You can accept Users' requests to join the group by selecting them and clicking the "Update Group" button.

My groups (You OWN these)

Cheese (Organization) ☐ Delete Group? ☐ Rename Group? Cheese

Current Users

Remove from Group?	User Name
<input type="checkbox"/>	Ironman
<input type="checkbox"/>	Bace1932

Pending Requests waiting on approval

Accept?	User Name
<input type="checkbox"/>	HiMike
<input checked="" type="checkbox"/>	Superman

Pending requests you sent

Recind offer?	User Name
<input type="checkbox"/>	m-vaughn
<input type="checkbox"/>	ibennett

Send New Group Request

adunn

You can rescind offers to users that haven't yet accepted your join offer by selecting them, and then hitting the "Update Group" button.

My groups (You OWN these)

Cheese (*Organization*) ☐ Delete Group? ☐ Rename Group? Cheese

Update Group

Current Users

Remove from Group?	User Name
<input type="checkbox"/>	Ironman
<input type="checkbox"/>	Bace1932

Pending Requests waiting on approval

Accept?	User Name
<input type="checkbox"/>	HiMike
<input type="checkbox"/>	Superman

Pending requests you sent

Recind offer?	User Name
<input checked="" type="checkbox"/>	m-vaughn
<input type="checkbox"/>	ibennett

Send New Group Request

adunn ▼ ☐ Send Request?

Lastly, you can send a user a group join request by selecting the user from the drop down menu, selecting "send request," and then clicking the "Update Group" button.

My groups (You OWN these)

Cheese (Organization) ☐ Delete Group? ☐ Rename Group? Cheese

Current Users

Remove from Group?

User Name

☐

Ironman

☐

Bace1932

Pending Requests waiting on approval

Accept?

User Name

☐

HiMike

☐

Superman

Pending requests you sent

Rescind offer?

User Name

☐

m-vaughn

☐

ibennett

Send New Group Request

Iphillips

☐

Send Request?

You can also see a list of groups you are not a part of, and don't have a request to join. You can select the ones you wish to send a request to, and then hit the "Send selected Group requests" button to send those requests.

Send a Request to Join a Group

Send Request?	Group Name	Organization Type
<input type="checkbox"/>	Computing Club	cse
<input type="checkbox"/>	Saturday Morning Cartoons	Club
<input type="checkbox"/>	Gardens	Business
<input type="checkbox"/>	Book Club	Club
<input checked="" type="checkbox"/>	Cars	Club
<input type="checkbox"/>	Prankster	jokes
<input type="checkbox"/>	Best Friends	Friends
<input checked="" type="checkbox"/>	My Friends	Friends
<input type="checkbox"/>	StonyBrookGang	Friends
<input type="checkbox"/>	CS Folks	Friends
<input type="checkbox"/>	My Family	Friends
<input type="checkbox"/>	Microsoft Groupies	Friends
<input type="checkbox"/>	dvorak	keys
<input type="button" value="Send selected Group requests"/>		

You can also create a new group by typing in a group name, the type of group it is, and selecting the "Create Group" button. This will make you the owner of your newly created group.

Create a new group

Group Name:	<input type="text" value="hello puppies"/>	Group Type:	<input type="text" value="fan club"/>	<input type="button" value="Create Group"/>
-------------	--	-------------	---------------------------------------	---

In the Employee Specific Page... To use these you must be logged in as an Employee.

The "advertisement management" link allows employees to create new advertisements, delete existing advertisements that they manage. Employees are also able to retrieve a customer's current groups, and generate mailing lists for the advertisements that they manage. The user interface for these operations is shown below.

Create an Advertisement

Item Name: Preference Category:

Price (USD): Company:

Description:

Number Available:

Manage Advertisements

Select	Item Name	Company	Preference Category	Description	Price	Units Available
<input type="checkbox"/>	Hedge Trimmers	Home Depot	Topiary	The perfect cut.	30.00	56

Create Mailing Lists

Hedge Trimmers, Home Depot

Retrieve a customer's current groups

Superman

In the Manager Specific Pages... To use these you must be logged in as a Manager.

The “Register new Employees” page can be used by managers to register new employees into the database. Since becoming an employee at instabook requires special permission, we require that an existing manager adds their information to the list of employees.











Register a New Employee

Employee ID	<input type="text"/>
First Name	<input type="text"/>
Last Name	<input type="text"/>
SSN	<input type="text"/>
Password	<input type="text"/>
Re-enter Password	<input type="text"/>
Address	<input type="text"/>
City	<input type="text"/>
State	<input type="text"/>
ZipCode	<input type="text"/>
Telephone	<input type="text"/>
Email	<input type="text"/>
Hourly Rate	<input type="text"/>

* Register as a Regular Employee
© Register as a site Manager

The “Manage Employees” page can be used by managers to edit information about existing employees in the database. This includes changing their HourlyRate, managerial status, email address, etc. Employees can also be deleted using this page.

Employees

Edit	EmployeeID	First Name	Password	Address	Email	Hourly Rate	Is A Site Manager
	t-smith	Thomas	password	500 Circle Road	employee@email.com	25.00	Yes
	joshk	Joshua	oomege6Shong	3419 Oakmound Road	JoshuaJKeasler@jourrapide.com	24.00	No
	Grid1949	Aaron	li8IezaeTh	4866 Stoney Lonesome Road	AaronGAlvarez@rhyta.com	35.00	Yes
	r-cataldo	Richard	aeHijju00h	1379 Adamsville Road	RichardVCataldo@armyspy.com	15.00	No
	Vory1963	Dixie	ohFai3oophe	126 Village View Drive	DixieODegree@dayrep.com	25.00	No
	Hearess	Jorge	Aengan5oh	4630 Briarwood Road	JorgeJHitt@dayrep.com	50.50	No
	pharris	Patty	Idah5QueeQu	422 Veltri Drive	PattyJBush@armyspy.com	34.10	No
	edward-b	Edward	Dop5bu8val	4274 Koontz Lane	EdwardDHuff@armyspy.com	25.00	No
	AndyB	Andrew	word	6 Apple Street	domain@name.com	45.00	No
	c-andrea	Chelsea	zituV8lNgai	692 Diane Street	ChelseaMHo@teleworm.us	25.00	No
Edit Selected Employee							

The “advertisement analytics” page contains the various options available for analysing the advertisement transactions that take place on InstaBook. Managers can look at the total revenue generated by a single preference type, item, user, etc. Sales reports for a particular month can be generated, as well as other metrics about items being sold on the site. The available operations are seen below.

Obtain a sales report for a particular month

Month:
December ▼ Go

View All Transactions Involving

Item:
BMW 3-Series, BMW Motorsports ▼ Go

User:
Superman ▼ Go

Calculate Revenue Generated From

Item:
BMW 3-Series, BMW Motorsports ▼ Go

User:
Superman ▼ Go

Item Type:
Cars ▼ Go

Customer that Generated Most Revenue

User	Total Revenue
Wolfie	\$ 64000.00

Employee that Generated Most Revenue

Employee	Total Revenue
r-cataldo	\$ 128071.98

Most Active Items

Item Name	Units Sold
Chilli Dog	12
Rocket Engine	9
Random Book	8
BMW 3-Series	4
EMachine 3	4

Produce a list of all customers who have purchased a particular item

Item:
BMW 3-Series, BMW Motorsports ▼ Go

Produce a list of all items for a given company

Company:
BMW Motorsports ▼ Go

Team Project

Team Name : InstaBook

Team Members:

Dan Choe (dan.choe@stonybrook.edu)

Sean Clark (sean.m.clark@stonybrook.edu)

Nathaniel Clench (nathaniel.clench@stonybrook.edu)

SQL Transactions:

User-Level Transactions

➤ **Users should be able to perform the following general transactions:**

```
-- Register (If a customer register on InstaBook, the customer's page is constructed automatically)
INSERT INTO User(AccountNumber, UserID, FirstName, LastName, Address, City, State, ZipCode,
Telephone, Email, CreationDate, CCNumber, Password, Rating)
VALUES(?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?);
INSERT INTO UserPreferences(User, Preferences) VALUES(?, ?);
INSERT INTO IBGroup(Id, Name, Type, Owner) VALUES(?, ?, ?, ?);
INSERT INTO Page(Id, Owner, PostCount, AssociatedGroup) VALUES(?, ?, ?, ?);
COMMIT;
```

```
-- Sign in and sign out
SELECT COUNT(*) FROM User WHERE UserId='?' AND Password='?';
COMMIT;
```

```
Sample output, with UserId = 'Superman' AND Password = 'password';
+-----+
| COUNT(*) |
+-----+
|          1 |
+-----+
```

```
-- Post messages in their personal pages
INSERT INTO Post(Id, Author, LikeCount, Content, Date, CommentCount)
VALUES(?, ?, 0, ?, NOW(), 0);
INSERT INTO AttachedToPage(Post, Page) VALUES(?, ?);
UPDATE Page WHERE OwnerId=? SET PostCount=?;
COMMIT;
```

```
-- Send a message
INSERT INTO Message(Id, Subject, TimeSent, Content) VALUES(?, ?, NOW(), ?);
COMMIT;
```

-- Receive a message

```
INSERT INTO SendReceive(MessageId, SenderId, ReceiverId) VALUES(?, ?, ?);  
COMMIT;
```

-- Delete a message

```
DELETE FROM Message WHERE MessageId=?;  
COMMIT;
```

-- Create a group

```
INSERT INTO IBGroup(Id, Name, Type, Owner) VALUES(?, ?, ?, ?);  
COMMIT;
```

-- Search for a user and add him to a group

```
SELECT AccountNumber FROM User WHERE UserId=? AND FirstName=?;
```

Sample output, with UserId='Batman' AND FirstName='Bruce';

```
+-----+  
| AccountNumber |  
+-----+  
|                2 |  
+-----+
```

```
INSERT INTO BelongsTo VALUES(?, ?, NOW());  
COMMIT;
```

-- Make a post

```
INSERT INTO Post(Id, Author, LikeCount, Content, Date, CommentCount) VALUES(?, ?, 0, ?, NOW(), 0);  
INSERT INTO AttachedToPage(Post, Page) VALUES(?, ?);  
UPDATE Page WHERE OwnerId=? SET PostCount=?;  
COMMIT;
```

-- Comment on a post

```
INSERT INTO Comment(Id, Author, Content, TimeCommented) VALUES(?, ?, ?, NOW());  
INSERT INTO AttachedToPost(Post, Comment) VALUES(?, ?);  
COMMIT;
```

-- Like a post

```
UPDATE Post SET LikeCount=? WHERE Id=?;  
INSERT INTO LikePost(UserId, PostId) VALUES(?, ?);  
COMMIT;
```

-- Like a comment

```
UPDATE Comment SET CommentCount=? WHERE Id=?;  
INSERT INTO LikeComment(UserId, CommentId) VALUES(?, ?);  
COMMIT;
```

-- Unlike a post

```
DELETE FROM LikePost WHERE UserId=? AND PostId=?;
```

```
UPDATE Post SET LikeCount=? WHERE Id=?;
COMMIT;
```

```
-- Unlike a comment
```

```
DELETE FROM LikeComment WHERE UserId=? AND CommentId=?;
SELECT LikeCount FROM Comment WHERE Id=?;
UPDATE Comment SET CommentCount=? WHERE Id=?;
COMMIT;
```

```
Sample output, with Id = 2;
```

```
+-----+
| LikeCount |
+-----+
|          1 |
+-----+
```

```
-- Modify a post
```

```
UPDATE Post SET Content=? WHERE Id=?;
COMMIT;
```

```
-- Modify a comment
```

```
UPDATE Comment SET Content=? WHERE Id=?;
COMMIT;
```

```
-- Delete a group
```

```
DELETE FROM IBGroup WHERE Id=?;
COMMIT;
```

```
-- Rename a group
```

```
UPDATE IBGroup SET Name=? WHERE Id=?;
COMMIT;
```

```
-- join a group
```

```
INSERT INTO GroupMembership(User, IBGroup)
VALUES(?, ?);
COMMIT;
```

```
-- unjoin a group
```

```
DELETE FROM GroupMembership WHERE Member=? AND GroupId=?;
COMMIT;
```

```
-- make a post on a group page
```

```
INSERT INTO Post(Author, Content)
VALUES(?, ?);
INSERT INTO AttachedToPage(Post, Page)
VALUES(?, ?);
COMMIT;
```

```
-- comment on a post on a group page
INSERT INTO Comment(Author, Content)
    VALUES(?, ?);
INSERT INTO AttachedToPost(PostId, Comment)
    VALUES(?, ?);
COMMIT;
```

```
-- Like a post on a group page.
INSERT INTO LikePost(UserId, PostId)
    VALUES(?, ?);
SELECT LikeCount FROM Post WHERE Id=?;
UPDATE Post WHERE PostId=? SET LikeCount=?;
COMMIT;
```

```
SELECT LikeCount FROM Post WHERE Id=6;
+-----+
| LikeCount |
+-----+
|         2 |
+-----+
```

```
-- Like a comment on a group page
INSERT INTO LikeComment(UserId, CommentId)
    VALUES(?, ?);
SELECT LikeCount FROM Comment WHERE Id=?;
UPDATE Comment WHERE PostId=? SET LikeCount=?;
COMMIT;
```

```
Sample output, with Id = 2;
+-----+
| LikeCount |
+-----+
|         1 |
+-----+
```

```
-- Remove one of their posts on a group page
DELETE FROM AttachedToPage WHERE Post=? AND Page=?;
DELETE FROM Post WHERE Id=?;
COMMIT;
```

```
-- Remove a comment
DELETE FROM AttachedTo WHERE Comment=? AND PostId=?;
DELETE FROM Comment WHERE Id=?;
COMMIT;
```

```
-- Unlike a post
DELETE FROM LikePost WHERE UserId=? AND PostId=?;
SELECT LikeCount FROM Post WHERE PostId=?;
UPDATE Post WHERE PostId=? SET LikeCount=?;
COMMIT;
```

Sample output, with Id = 2;

```
+-----+
| LikeCount |
+-----+
|          1 |
+-----+
```

```
-- Modify a post
UPDATE Post SET Content=? WHERE Id=?;
COMMIT;
```

```
-- Modify a comment
UPDATE Comment SET Content=? WHERE Id=?;
COMMIT;
```

Manager-Level Transactions

➤ **Managers should be able to do the following:**

-- Add, Edit and Delete information for an employee

-- add

```
INSERT INTO Employee(EmployeeID, FirstName, LastName, Address, City, State, ZipCode, Telephone,
SSN, Email, HourlyRate, Password) VALUES
(?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?);
COMMIT;
```

-- edit

```
SELECT * FROM Employee WHERE EmployeeId=?;
UPDATE Employee
    SET EmployeeID=? FirstName=? LastName=? Address=? City=? State=? ZipCode=?
    Telephone=? SSN=? Email=? StartDate=? HourlyRate=? Password=?
    WHERE AccountNumber=?;
COMMIT;
```

--delete

```
DELETE FROM Employee WHERE AccountNumber=?;
COMMIT;
```

```
-- Obtain a sales report for a particular month [ ? will be a string, yyyy-mm%, e.g. "2016-11%" ]
SELECT C.Name AS Company, A.ItemName, T.UnitsPurchased, A.UnitPrice, T.UnitsPurchased *
A.UnitPrice AS Total
```

```

FROM AdTransaction T, Advertisement A, Company C
WHERE A.Id = T.Advertisement AND A.Company=C.Id AND T.DatePurchased LIKE ?;
COMMIT;

```

?="2016-11%"

Company	ItemName	UnitsPurchased	UnitPrice	Total
BMW Motorsports	BMW i8	1	89999.99	89999.99
Comedic Toys	Whoopie Cushion	1	9.99	9.99
Comedic Toys	Whoopie Cushion	4	9.99	39.96
BMW Motorsports	BMW i8	2	89999.99	179999.98
Circuit City	EMachine 3	1	199.99	199.99
Hot Dog City	Chilli Dog	9	2.50	22.50
The Book Store	Random Book	8	5.00	40.00
Home Depot	Bookshelf	1	39.99	39.99
Circuit City	EMachine 3	3	199.99	599.97
Rockets R Us	Rocket Engine	9	20.00	180.00

-- Produce a comprehensive listing of all items being advertised on the site

```

SELECT * FROM Advertisement WHERE NumAvailable>0;
COMMIT;

```

Sample output:

Id	ManagingEmployee	Company	ItemName	NumAvailable	UnitPrice
1	4	1	BMW i8	50	89999.99
2	1	2	Whoopie Cushion	5	9.99
3	2	4	Rocket Engine	150	20.00
4	2	6	Dictionary	20	49.99
5	4	3	Rock	1	20000.00
6	6	10	EMachine 3	13	199.99
7	9	9	Hockey Stick	5	19.99
8	10	7	Chilli Dog	200	2.50
9	2	6	Random Book	50	5.00
10	7	5	Bookshelf	20	39.99

-- Produce a list of transactions by item name or by user name

--item name

```

SELECT C.UserId, A.ItemName, T.UnitsPurchased, T.DatePurchased
FROM AdTransaction T, User C, Advertisement A
WHERE T.Customer=C.AccountNumber AND T.Advertisement=A.Id AND A.ItemName=?;
COMMIT;

```


?="BMW i8"

UserId	ItemName	UnitsPurchased	DatePurchased
Superman	BMW i8	1	2016-11-06 18:07:10
Wolfie	BMW i8	2	2016-11-06 18:07:10

-- user name

```
SELECT C.UserId, A.ItemName, T.UnitsPurchased, T.DatePurchased
      FROM AdTransaction T, User C, Advertisement A
      WHERE T.Customer=C.AccountNumber AND T.Advertisement=A.Id AND C.UserId=?
COMMIT;
```

?="batman"

UserId	ItemName	UnitsPurchased	DatePurchased
Batman	Whoopie Cushion	1	2016-11-06 18:07:10

-- Produce a summary listing of revenue generated by a particular item, item type, or customer

-- item

```
SELECT SUM(t.Sale) FROM (SELECT T.UnitsPurchased * A.UnitPrice AS Sale
      FROM AdTransaction T, Advertisement A
      WHERE T.Advertisement=A.Id AND A.ItemName=?) t;
COMMIT;
```

?="BMW i8"

SUM(t.Sale)
269999.97

-- item type

```
SELECT SUM(t.Sale) FROM (SELECT T.UnitsPurchased * A.UnitPrice AS Sale
                        FROM AdTransaction T, Advertisement A
                        WHERE T.Advertisement=A.Id AND A.PreferenceType=?) t;
COMMIT;
```

?=4

```
+-----+
| SUM(t.Sale) |
+-----+
|      180.00 |
+-----+
```

-- customer

```
SELECT SUM(t.Sale) FROM (SELECT T.UnitsPurchased * A.UnitPrice AS Sale
                        FROM AdTransaction T, Advertisement A, User C
                        WHERE T.Advertisement=A.Id AND C.AccountNumber=T.Customer AND C.UserID=?) t;
COMMIT;
```

?="superman"

```
+-----+
| SUM(t.Sale) |
+-----+
|  89999.99 |
+-----+
```

-- Determine which customer representative generated most total revenue

```
SELECT t.EID, SUM(t.Sale) AS total FROM
        (SELECT T.UnitsPurchased * A.UnitPrice AS Sale, E.EmployeeID AS EId
        FROM AdTransaction T, Advertisement A, Employee E
        WHERE T.Advertisement=A.Id AND A.ManagingEmployee=E.AccountNumber) t
GROUP BY t.EID
ORDER BY total DESC
LIMIT 1;
COMMIT;
```

```
+-----+-----+
| EId    | total    |
+-----+-----+
| Sightle | 269999.97 |
+-----+-----+
```

-- Determine which customer generated most total revenue

```
SELECT t.UID, SUM(t.Sale) AS total FROM
        (SELECT T.UnitsPurchased * A.UnitPrice AS Sale, U.UserID as UID
        FROM AdTransaction T, Advertisement A, User U
        WHERE T.Advertisement=A.Id AND T.Customer=U.AccountNumber) t
```

```

GROUP BY t.UID
ORDER BY total DESC
LIMIT 1;
COMMIT;

```

```

+-----+-----+
| UID    | total    |
+-----+-----+
| Wolfie | 179999.98 |
+-----+-----+

```

-- Produce a list of most active items

```

SELECT A.ItemName, SUM(T.UnitsPurchased) AS Total
      FROM AdTransaction T, Advertisement A
      WHERE A.Id = T.Advertisement
      GROUP BY A.ItemName
      ORDER BY Total DESC
      LIMIT 5;
COMMIT;

```

```

+-----+-----+
| ItemName      | Total |
+-----+-----+
| Chilli Dog    | 9     |
| Rocket Engine | 9     |
| Random Book   | 8     |
| Whoopie Cushion | 5    |
| EMachine 3    | 4     |
+-----+-----+

```

-- Produce a list of all customers who have purchased a particular item

```

SELECT C.UserId, C.FirstName, C.LastName
      FROM AdTransaction T, User C, Advertisement A
      WHERE T.Customer=C.AccountNumber AND T.Advertisement=A.Id AND A.ItemName=?;
COMMIT;

```

?="BMW i8"

```

+-----+-----+-----+
| UserId  | FirstName | LastName |
+-----+-----+-----+
| Superman | Clark    | Kent     |
| Wolfie   | Stony    | Brook    |
+-----+-----+-----+

```

-- Produce a list of all items for a given company

```

SELECT A.ItemName

```

```

        FROM Company C, Advertisement A
        WHERE A.Company=C.Id AND C.Name=?;
COMMIT;

```

```

?="The Book Store"
+-----+
| ItemName |
+-----+
| Dictionary |
| Random Book |
+-----+

```

Customer-Representative-Level Transactions:

-- create an advertisement.

```

INSERT INTO Advertisement (ManagingEmployee, PreferenceType, Company, ItemName,
Content, NumAvailable, UnitPrice) VALUES
        ('?', '?', '?', '?', '?', '?', '?');
COMMIT;

```

-- delete an advertisement

```

DELETE FROM Advertisement
WHERE
        Id = '?';
COMMIT;

```

-- produce customer mailing lists

```

SELECT
        U.FirstName, U.LastName, U.Email
FROM
        User U,
        Advertisement A,
        AdTransaction AdT
WHERE
        U.AccountNumber = AdT.Customer
        AND AdT.Advertisement = A.Id
        AND A.Company = '?';
COMMIT;

```

Sample output with ? = 2;

FirstName	LastName	Email
Bruce	Wayne	batman@email.com
Tony	Stark	ironman@email.com

-- Produce a list of item suggestions for a given customer (based on that customer's past transactions)

```
SELECT
    A2.ItemName
FROM
    User U,
    Advertisement A1,
    Advertisement A2,
    AdTransaction AdT
WHERE
    U.AccountNumber = '?'
    AND U.AccountNumber = AdT.Customer
    AND AdT.Advertisement = A1.Id
    AND A1.PreferenceType = A2.PreferenceType
    AND A1.Id <> A2.Id;
COMMIT;
```

Sample output with ? = 7;

ItemName
Dictionary

-- Purchase one or more copies of an advertised item

```
INSERT INTO AdTransaction(Customer, Advertisement, UnitsPurchased) VALUES
    ('?', '?', '?');
UPDATE Advertisement
SET
    NumAvailable = NumAvailable - '?'
WHERE
    Id = '?';
COMMIT;
```

-- retrieve a customer's current groups

```
SELECT
    GR.Name, GM.JoinDate
FROM
    IBGroup GR,
    User U,
    GroupMembership GM
WHERE
    U.AccountNumber = GM.User
    AND GR.Id = GM.IBGroup
    AND U.AccountNumber = '?';
COMMIT;
```

Sample output, with ? = 9;

Name	JoinDate
Stuff	2016-11-07 16:04:59
Cheese	2016-11-07 16:04:59
Wine	2016-11-07 16:04:59
Cars	2016-11-07 16:04:59

-- retrieve a customer's account History

```
SELECT
    A.ItemName, A.UnitPrice, AdT.UnitsPurchased
FROM
    User U,
    Advertisement A,
    AdTransaction AdT
WHERE
    U.AccountNumber = AdT.Customer
    AND AdT.Advertisement = A.Id
    AND U.AccountNumber = '?';
COMMIT;
```

Sample output, with ? = 7;

ItemName	UnitPrice	UnitsPurchased
Random Book	5.00	8

```
-- best seller list - (showing the top 3 items sold)
SELECT
    A.ItemName, SUM(T.UnitsPurchased) AS Total
FROM
    AdTransaction T,
    Advertisement A
WHERE
    A.Id = T.Advertisement
GROUP BY A.ItemName
ORDER BY Total DESC
LIMIT 3;
COMMIT;-
```

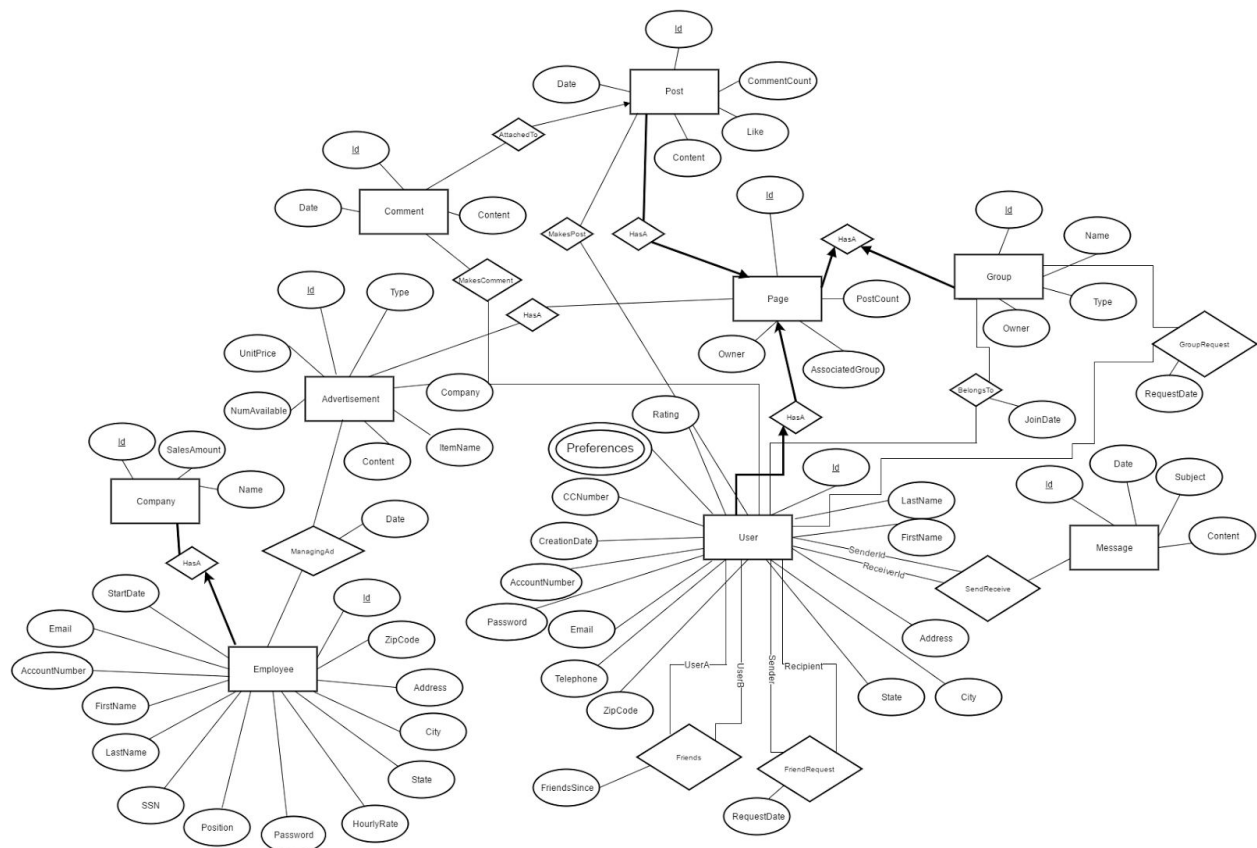
Sample output:

```
+-----+-----+
| ItemName      | Total |
+-----+-----+
| Chilli Dog    | 9     |
| Rocket Engine | 9     |
| Random Book   | 8     |
+-----+-----+
```

```
-- personalized item suggestion list, (basing this on preferences)
SELECT
    A.ItemName, P.Name as Category
FROM
    User U,
    Advertisement A,
    UserPreferences UP,
    Preference P
WHERE
    A.PreferenceType = UP.Preference
    AND UP.User = U.AccountNumber
    AND P.Id = UP.Preference
    AND U.AccountNumber = '?';
COMMIT;
```

Sample output, with ? = 2;

+-----+-----+	
ItemName	Category
+-----+-----+	
BMW i8	Cars
Rocket Engine	Space
+-----+-----+	



Relational model of your database system, based on your E-R design:

<pre>CREATE TABLE User (Id INTEGER, FirstName VARCHAR(50), LastName VARCHAR(50), Address VARCHAR(255), City VARCHAR(100), State VARCHAR(50), ZipCode INTEGER, Telephone INTEGER, Email VARCHAR(100), AccountNumber INTEGER UNIQUE, CreationDate DATE, CCNumber INTEGER, Password VARCHAR(20) NOT NULL, Rating VARCHAR(50), PRIMARY KEY (Id));</pre>	<pre>CREATE Domain PREF AS CHAR(1) (CHECK(VALUE IN('Y', 'N'))); CREATE TABLE Preferences (Id INTEGER, FOREIGN KEY (Id) REFERENCES User(Id), Car PREF DEFAULT 'N', Computer PREF DEFAULT 'N', Clothing PREF DEFAULT 'N', Food PREF DEFAULT 'N', PRIMARY KEY (Id));</pre>
<pre>CREATE TABLE Friends (UserA INTEGER, UserB INTEGER, FriendsSince DATE, PRIMARY KEY (UserA, UserB), FOREIGN KEY (UserA) REFERENCES User(Id), FOREIGN KEY (UserB) REFERENCES User(Id));</pre>	<pre>CREATE TABLE FriendRequest (Sender INTEGER, Recipient INTEGER, RequestDate DATE, PRIMARY KEY (Sender, Recipient), FOREIGN KEY (Sender) REFERENCES User(Id), FOREIGN KEY (Recipient) REFERENCES User(Id) CHECK (NOT EXISTS (Sender=Recipient)));</pre>
<pre>CREATE TABLE Advertisement (Id INTEGER, Type VARCHAR(50), ItemName VARCHAR(255), Company VARCHAR(50), Content VARCHAR(255), NumAvailable INTEGER, UnitPrice Decimal(10,2), PRIMARY KEY (Id));</pre>	<pre>CREATE TABLE ManagingAd (Id INTEGER, EmployeeId INTEGER, AdId INTEGER, Date Date, LastName VARCHAR(50), PRIMARY KEY (Id), FOREIGN KEY EmployeeId REFERENCES Employee(Id), FOREIGN KEY AdId REFERENCES Advertisement(Id));</pre>
<pre>CREATE TABLE Company (Id INTEGER, Name VARCHAR(50),</pre>	<pre>CREATE TABLE Employee (Id INTEGER, FirstName VARCHAR(50),</pre>

<pre> SalesAmount Decimal(20,2), Employees Employee, PRIMARY KEY (Id)); </pre>	<pre> LastName VARCHAR(50), Address VARCHAR(255), City VARCHAR(100), State VARCHAR(50), ZipCode INTEGER, Telephone INTEGER, SSN INTEGER, Email VARCHAR(100), AccountNumber INTEGER UNIQUE, StartDate DATE, HourlyRate Decimal(10,2), Password VARCHAR(20) NOT NULL, PRIMARY KEY (Id)); </pre>
<pre> CREATE TABLE Page (Id INTEGER, Owner INTEGER NOT NULL, PostCount INTEGER, AssociatedGroup INTEGER, PRIMARY KEY (Id), FOREIGN KEY Owner REFERENCES User(Id), FOREIGN KEY AssociatedGroup REFERENCES Group(Id)); </pre>	<pre> CREATE TABLE Group (Id INTEGER, Name VARCHAR(50), Type CHAR(20), Owner INTEGER NOT NULL, PRIMARY KEY (Id), FOREIGN KEY Owner REFERENCES User(Id)); </pre>
<pre> CREATE TABLE BelongsTo (Id INTEGER, Member INTEGER, JoinDate DATE, PRIMARY KEY (Id), FOREIGN KEY Members REFERENCES User(Id)); </pre>	<pre> CREATE TABLE Message (Id INTEGER, Subject VARCHAR(100), Date DATE, Content VARCHAR(500), PRIMARY KEY (Id)); </pre>
<pre> CREATE TABLE SendReceive (MessageId INTEGER, SenderId INTEGER, ReceiverId INTEGER, PRIMARY KEY (MessageId, SenderId, ReceiverId), FOREIGN KEY SenderId REFERENCES User(Id), FOREIGN KEY ReceiverId REFERENCES User(Id), FOREIGN KEY (MessageId) REFERENCES Message(Id), CHECK (NOT EXISTS (SenderId=ReceiveId))); </pre>	<pre> CREATE TABLE Post (Id INTEGER,Post Writer INTEGER, Like INTEGER, Content INTEGER, Date DATE, CommentCount INTEGER, PRIMARY KEY (Id), FOREIGN KEY Writer REFERENCES User(Id)); </pre>

<pre> CREATE TABLE Comment(Id INTEGER, Writer INTEGER, Content INTEGER, Date DATE, PRIMARY KEY (Id), FOREIGN KEY Writer REFERENCES User(Id)); </pre>	<pre> CREATE TABLE AttachedTo(Id INTEGER, PostId INTEGER, Comment INTEGER, PRIMARY KEY (Id), FOREIGN KEY PostId REFERENCES Post(Id), FOREIGN KEY Comment REFERENCES Comment(Id)); </pre>
<pre> CREATE TABLE GroupRequest (UserId INTEGER, GroupId INTEGER, RequestDate DATE, PRIMARY KEY (UserId, GroupId), FOREIGN KEY (UserId) REFERENCES User(Id), FOREIGN KEY (GroupId) REFERENCES Group(Id)); </pre>	

Brief rationale for your Relational model:

We made Preferences a separate table where each preference category is a column with either Y or N. Each user will have a row of their preferences. A “Friend Relationship” will be represented by two rows in the Friends table, where A is friends with B, and then B is friends with A. In SendReceive, the primary key is composed of The sender’s user id, the receiver’s user id, and the message id, because one message will only be sent once, but the two users may send multiple messages to each other.