Mingle An Office Networking Platform

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Introduction

Mingle is an application that allows all the employee to connect and update each other with their existing projects, form teams to contribute to projects, update their skills and interest in their profiles, add certifications, share pictures and location of the conferences, events and socialize with other employee across the firm.

Following are the functionalities of the system:

Create/Register a Mingle profile:

All employee's of the organization are allowed to create a profile on Mingle. The employee can make the profile public or private upon his discretion. Once the employee deletes his profile, all the data corresponding to the employee profile will be deleted.

Create or Update Posts on the Wall:

Employees can create and update posts on their wall. The posts can be anything specific to the employee. Examples of which can be all the courses that he is takes, his views on modern technologies, hotlinks to his github repository, twitter handle etc. He can also create post specific to the project and provide his team explicitly to view the content.

Network and build relationships:

Mingle allows an employee to network and collaborate with other employees by sending a connect request. An employee can also use Mingle to form teams and collaborate with the team members in project activities. Connection can be team, friends or distinct friends given the scenario.

Upload Multimedia Contents:

Employees can post pictures, videos etc of presentation, conferences, training resources with Mingle providing the provision to either share it across team or across the organization.

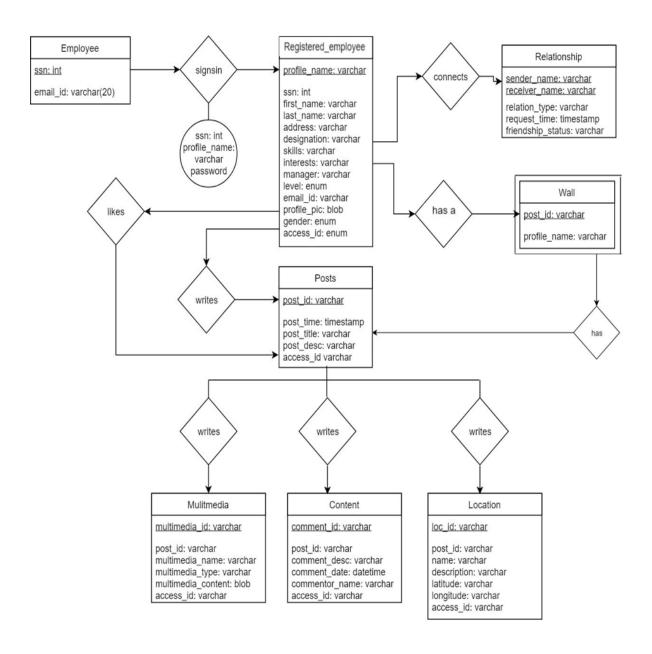
Adding Location details and Comments:

Employees can post their location details on Mingle that allows others to know where you are. This feature can be used when the employee attends a event and would like to showcase his presence across the organizations. Mingle allows an employee to comment on post and also allows him to make the comment restricted to Team or Public .

Likes:

Employees can like posts, comment or multimedia contents posted by an employee.

Entity Relational Model



Schema Description

Relational Schema:

- employee(ssn,email_id)
- signin(ssn,password)
- registered_employee(<u>profile_name</u>,ssn,first_name,last_name,address,designation,skill, interests,manager,level,access_id,email_id,profile_pic,gender)
- post(<u>post_id</u>,post_date,post_title,post_desc,access_id)
- wall(post_id,profile_name)
- relationship(sender_name,receiver_name,relation_type,request_time,request_status)
- comment(<u>comment_id</u>,post_id,desc,comment_date,commentor_name,access_id)
- location(loc id,post id,name,description,latitude,longitude,access id)
- likes(<u>like_id</u>,post_id,comment_id,multimedia_id,loc_id,viewer_name,like_date)

Foreign Keys:

- ssn in signin table is a foreign key referencing the ssn in the employee table.
- ssn in the registered_employee table is a foreign key referencing the ssn in employee table.
- post_id,profile_name in wall table references the post_id in post and profile_name in the registered employee table respectively.
- In multimedia_connent table post_id is the foreign key referencing table post.
- In comment table post_id is the foreign key referencing table post and commentor name is the foreign key referencing table registered employee.
- In like table likes viewer_name is the foreign key referencing table
 registered_employee and post_id is the foreign key referencing table post and
 multimedia_id is the foreign key referencing table multimedia_content and loc_id is the
 foreign key referencing table location.
- In relationship table sender name references table registered employee.

Mingle Application Description

Mingle is designed as a responsive web application that allows the user to collaboration, share, network across the organization. Users are encouraged to use Mingle to share their team projects, their learning resources across the Organization. Users can build team of colleagues and collaborate working on their projects. They can post their locations and enable fellow minglers to comment.

Mingle also allows the user to post source code links that can be used by users to pull and push requests to. Multimedia content are also shared through Mingle.

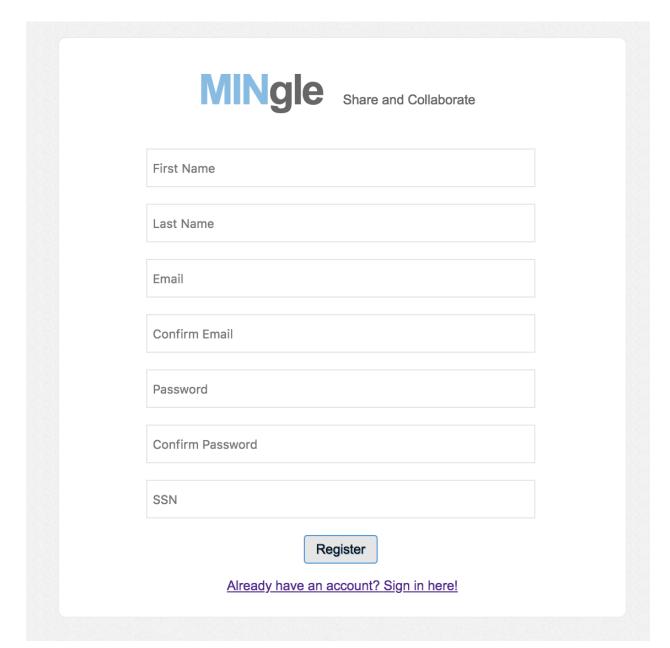
Use Cases

Employee Sign up:

Prerequisite: Only employees whose ssn are in the database are allowed to signin. If an employee is new and his ssn had not be added he should contact HR to add his id to the database.

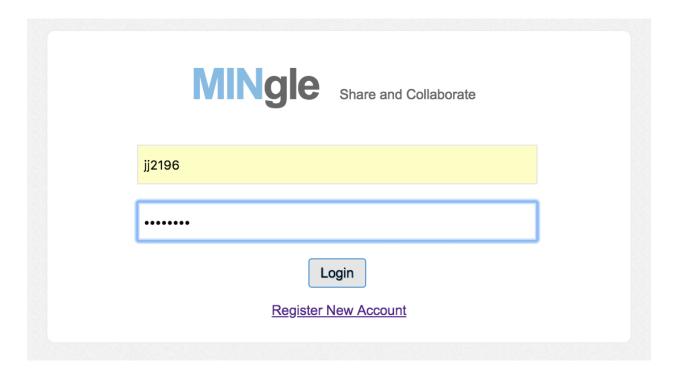
SignUp page:

- Click mingle.localhost.
- Select Register New Account.
- Add details as show in the form page.



Employee Login Page:

- Enter user-id
- Enter Password

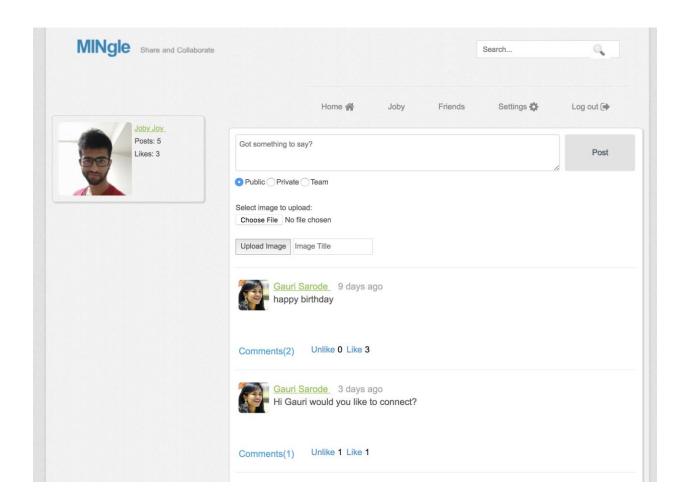


Employee Home Page:

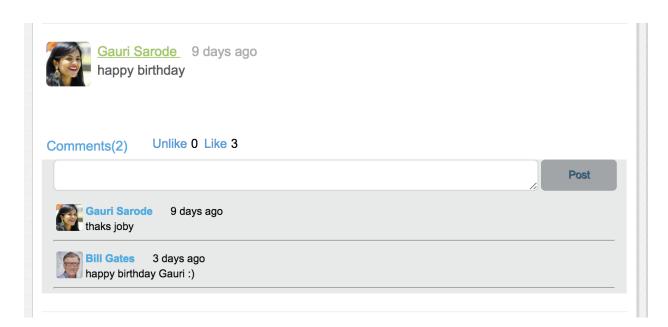
On login the employee views the home page with the follow features. (User is referred to the employee)

Features:

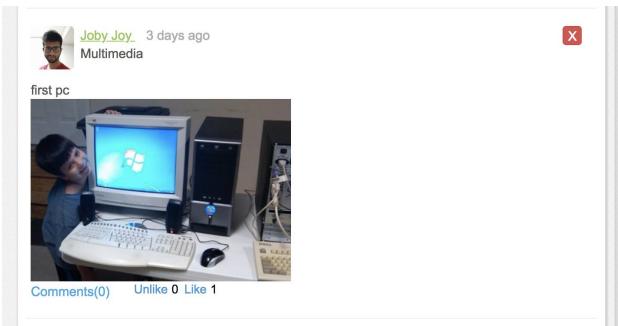
- List of all the pages that the user can visit from the home page.
- The number of posts posted by the user.
- The number of likes by the user.
- The Profile pic of the user.
- The area where the user can post the articles.
- The option to add Multimedia content and along with the titles.
- Options on setting the privacy level of all the posts.
- View Area for all the posts that are public and shared by friends and team-mates.
- Option to comment on the post.
- Option to like or dislike the post.
- Option to delete the post.
- Option to search for other Users in the organization.



Comment Frame:

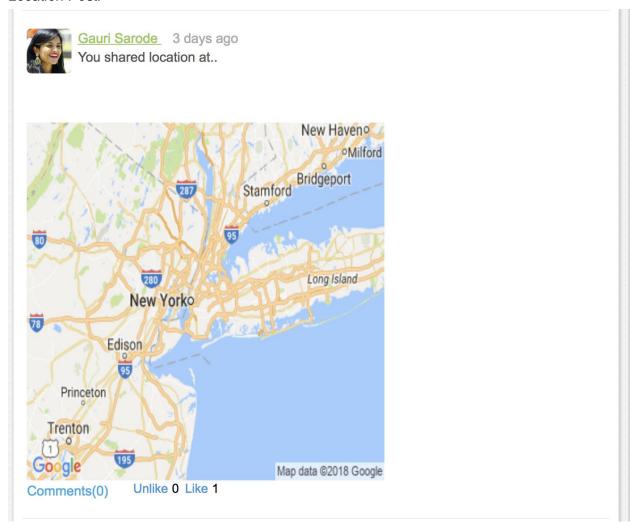


Multimedia Posts:

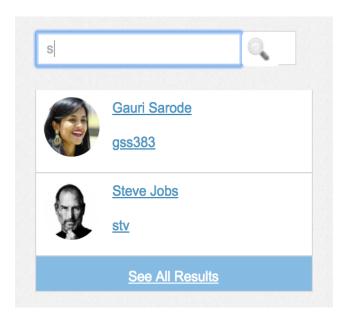




Location Post:



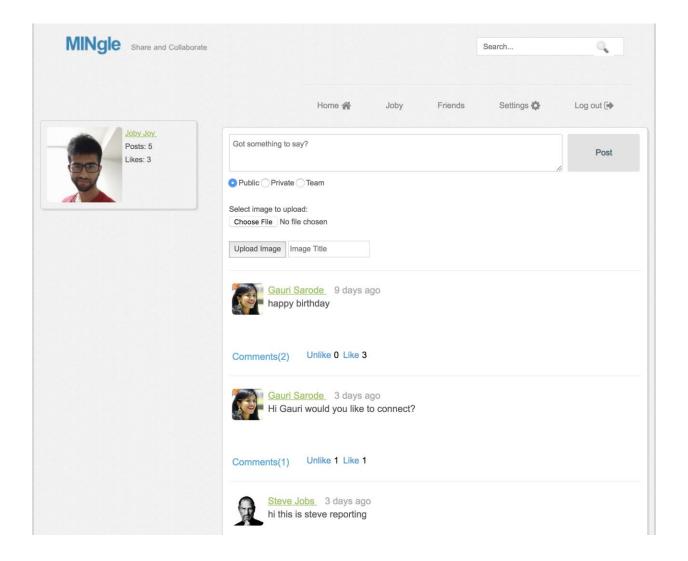
Search Frame:



Employee Profile Page:

Features:

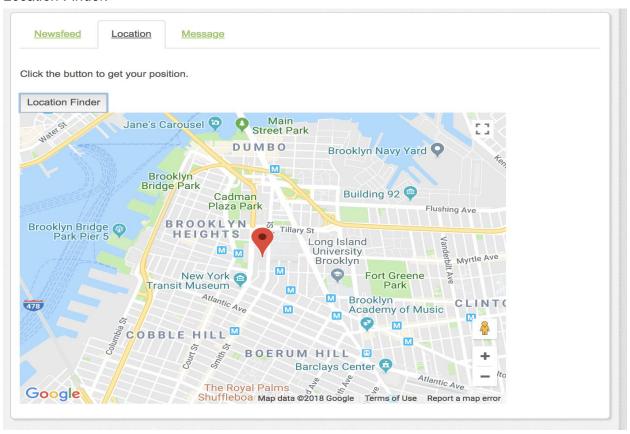
- View all his posts.
- View total number of likes, posts and friends.
- Option to comment on the post.
- Option to like or dislike the post.
- Option to delete the post.
- Option to search for other Users in the organization.
- Viewing the current location.
- Sharing the location.
- · Posting to walls.
- Responding to the friend requests.
- Messaging colleagues.



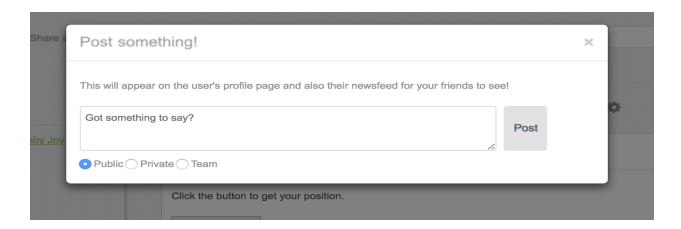
Info Page:



Location Finder:

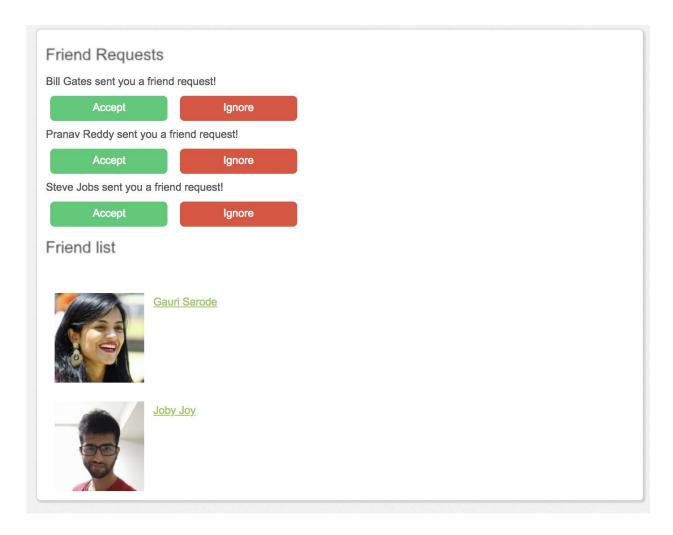


Post something to frame:

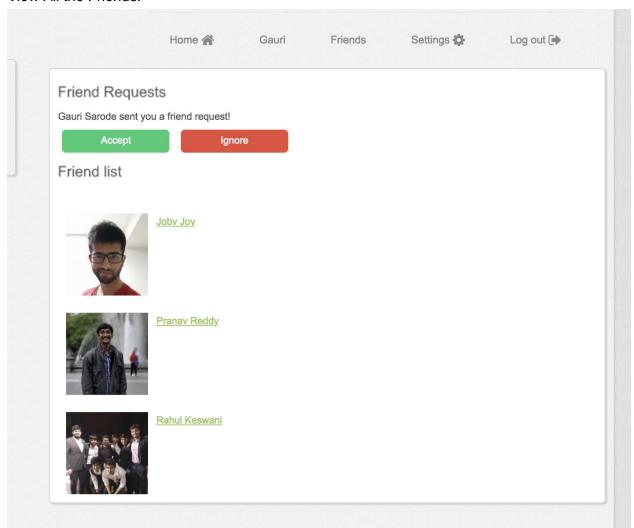


Friends View Page:

View Friend Requests:

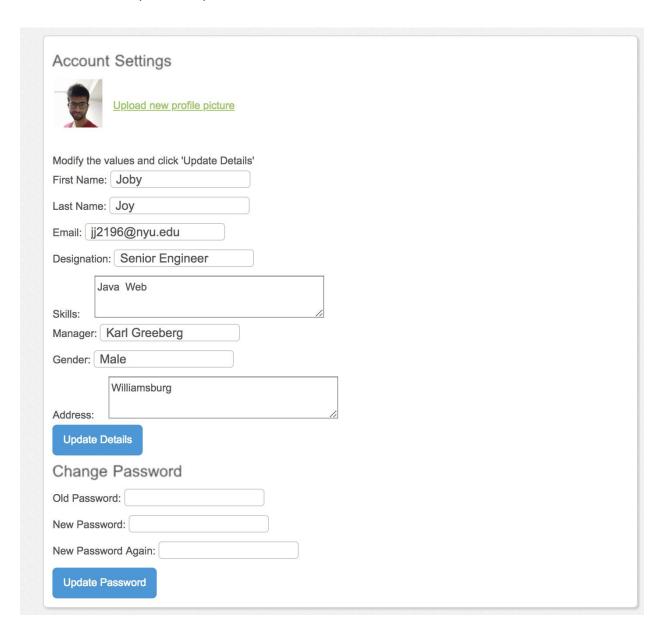


View All the Friends:



User Setting:

- User can update his or her profile settings.
- User can update his password and his name.

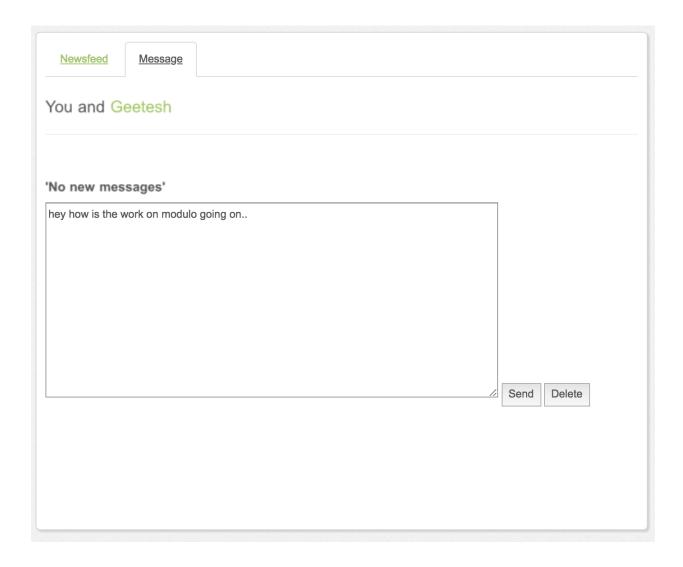


Logout:

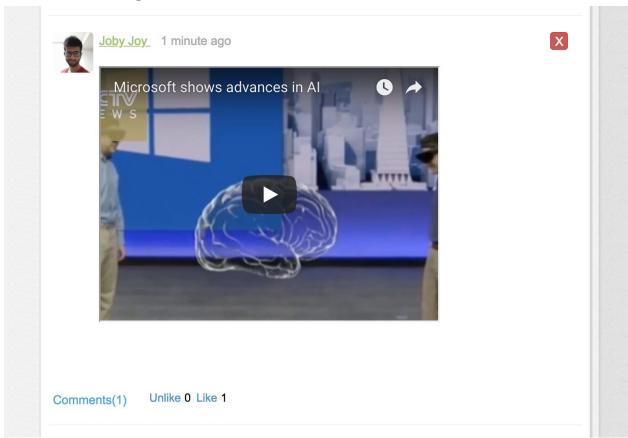
Selecting logout would kill the session and allow user to logout from Mingle.

Additional Use Cases

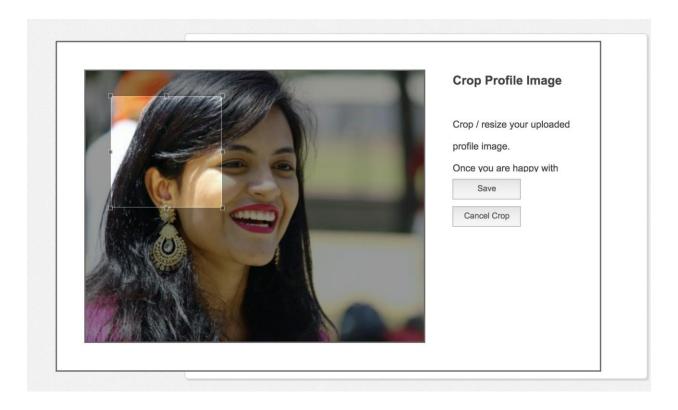
Send Messages to Users:



Video embedding



Crop Images:



Schema Remodelling

Following schema redesigning attempts were made in the development phase of Mingle.

- Add attribute **profile_name** in signin table to link between employee and registered_employee table.
- Add **deleted** column in location, likes, post, wall and multimedia table to keep a track of all the post and comments that have been deleted.

Relations after the changes:

Signin:

F	Result Grid	Filter Rows:		
ssn		password	profile_name	
	407840577	password	akk198	
	379486342	password	gpn967	
	742347661	password	gss383	
	742347663	password	jj2196	
	378092902	password	pns234	
	940237837	password	ryk123	

Wall:

	Result Gri	d III Filter	Rows:	Q Searc	
	post_id	profile_name	deleted	access_id	
>	post_1	jj2196	yes	Р	
	post_2	gss383	yes	Р	
	post_3	jj2196	yes	Р	
	post_4	gss383	yes	P	
	post_5	gss383	yes	Р	
	post_6	ryk123	yes	Р	

Multimedia:

	Result Grid	Filter I	Rows: Q Sear	Search Export:				
	multimedia_id post_id multimedia_r		multimedia_name	Multimedia_type	multimedia_content	access_id	deleted	
▶	mul_1	post_1	Miami Image	jpg	BLOB	S	no	
	mul_10	post_17	mytest	jpg	BLOB	Р	no	
	mul_11	post_18	mytest	jpg	BLOB	Р	no	
	mul_12	post_19	mytest	jpg	BLOB	Р	no	
	mul_13	post_20	NYU	jpg	BLOB	Р	no	
	mul_14	post_21	finaltest	jpg	BLOB	Р	no	
	mul 15	nost 22	test	ipa	BLOB	Р	no	

Location:

	loc_id	post_id	name	description	latitude	longitude	access_id	deleted
•	loc_1	post_1	Miami Convention Center	Conference on AI for next generations	40.7587° N	73.9787° W	Р	no
	loc_10	post_31	Location from map		40.7098302	-73.9162242	Р	no
	loc_11	post_32	Location from map		40.7098164	-73.91619969999999	Р	no
	loc_12	post_33	Location from map		40.7098164	-73.91619969999999	Р	no
	loc_13	post_34	Location from map		40.7097906	-73.9162589	Р	no
	loc_14	post_35	Location from map		40.7097906	-73.9162589	Р	no
	loc 15	post 36_	Location from map		40.7098121	-73.9162375	Р	no

Likes:

	like_id	post_id	multimedia_id	comment_id	loc_id	viewer_name	like_time	deleted
•	like_1	post_1	mul_1	cmnt_1	NULL	gss383	2010-07-22 22:30:12	yes
	like_10	post_2	mul_3	cmnt_1	NULL	pns234	2010-09-22 19:35:19	no
	like_11	post_1	NULL	NULL	NULL	jj2196	2018-02-02 09:10:30	no
	like_12	post_1	NULL	NULL	NULL	jj2196	2018-04-23 00:00:00	no
	like_13	post_1	NULL	NULL	NULL	jj2196	2018-04-23 00:00:00	no
	like_14	post_1	NULL	NULL	NULL	jj2196	2018-04-23 00:00:00	no

Future Implementation

Mingle will continue to expand to incorporate additional features as:

- Real Time Chat application.
- Real Time Notification.
- News Trendz.
- Push Notification.

Technology Stack

Mingle is developed using the following technologies.

Frontend: HTML5, CSS, JavaScript, Jquery, Ajax.

Middleware: PHP Backend: MySql.