- 1. User creates an account for the first time
 - Firebase authentication handles sign up with email.
 - Frontend makes a call to check_email to see if a user_id is associated with the email account the user authenticated with. Since this is a new account, there should be no binding.
 - Frontend then asks the user for a unique user_id.
 - Frontend makes a call to *search* to see if the user_id is taken. If taken, keep asking user to enter a user id and check until they enter something that is not already taken.
 - Frontend continues asks for account information, forms a JSON packet with the user credentials.
 - Frontend makes a call to *create_user* with user credentials attached.

2. User logs in

- Firebase authentication handles sign in with email.
- Frontend makes a call to check_email to fetch the associated userId.
- Frontend uses the userId to make calls to get_my_feeds and get my posts to gather the content to build the user's wall.
- Frontend renders user wall.

3. User searches for a friend

- Frontend makes a call to *is_friend* to see if the userId provided is already a friend of the user.
- Frontend makes a call to *search* to see if the userId is in our system.
- If there is such a user and the user is already friends with us, we may show some more information about the user.
- If there is such a user and the user is not friends yet, frontend will display option to send a request.

4. User adds a friend

- Continuing from where a user searches for another user,
 Frontend makes a call to friend_request to send a friend request to the other user.
- On the frontend of the other user, a friend request appears when we refresh and a call to get_pending_tasks was made inadvertently through refresh.
- If the other user accepts the request, Frontend makes a call to *friend response*.
- Back to the frontend of the befriending user, as soon as friend response appears when we refresh and a call to get_pending_tasks was made inadvertently through refresh, the Frontend makes calls to add_friend_userid for both users to officially record them as friends.

- 5. User deletes a friend
 - Frontend makes a call to delete friend userid.
- 6. User creates a post
 - Frontend makes a call to create_post.
- 7. User updates a post
 - Frontend makes a call to update_post.
- 8. User deletes a post
 - Frontend makes a call to delete post.
- 9. User comments on a post
 - Frontend makes a call to create comment.
- 10. User updates a comment
 - Frontend makes a call to update_comment.
- 11. User deletes a comment
 - Frontend makes a call to delete comment.
- 12. User replies to a comment
 - Frontend makes a call to create_reply.
- 13. User updates a reply
 - Frontend makes a call to update reply.
- 14. User deletes a reply
 - Frontend makes a call to delete_reply.
- 15. User clicks a friend's profile to view the friend's posts
 - Frontend makes a call to get_friendposts.
- 16. User clicks on his own profile to see his/her homepage
 - Frontend makes a call to get_myposts.
- 17. User refreshes his page to get the most recent feed
 - Frontend makes a call to get my feed.
 - Frontend makes a call to get_pending_tasks to deal with friend requests or friend responses.

API Documentation: RIGHT NOW NO AUTHENTICATION

- create_userid: creates a new user in database * method: POST * url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/create_userid * params: user profile: JSON * return: 200: return "user created!" with status code: 1 * if user doesn't exist: * if user exists: 200: return JSON of existing user profile with status code 0 * if add fails: error: return error code */ - delete_userid: delete the specified user in database * method: DELETE * url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/delete_userid * params: JSON containing user id * return: * if user exists: 200: return "user deleted!" with status code: 1 * if user doesn't exist: 200: return "no such user" with status code: 0 * if add fails: error: return error code */ - update_userid: updates the specified user profile in database * method: POST * url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/update_userid * params: user profile JSON * return:

```
* if user doesn't exist:
                             200: return false with status code: 0
* if add fails:
                             error: return error code
*/
      - search userid: search for the specified user in database
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/search_userid?user_id={id}
* params: user id
* return:
* if user exists: 200: return true with status code: 1
* if user doesn't exist: 200: return false with status code: 0
* if search fails:
                       error: return JSON of user profile with error code
Friend Related APIs
        is_friend: check if two users are friends
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/isFriend?user_id={id}&me_id=
{id}
* params: user id
* return:
* if user exists:
                       200: return whether friends(true/false) with status code: 1
* if user doesn't exist:
                       200: return false with status code: 0
* if search fails:
                       error: return error code
*/
        friend_request: me_id sends user_id a friend request (not friends yet)
```

200: return true with status code: 1

* if user does exist:

/*

```
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/friend_request?user_id={id}&
me id={id}
* params: user id & me id
* return:
* if user exists:
                          200: return true with status code: 1
* if user doesn't exist:
                          200: return false with status code: 0
* if add fails:
                          error: return error code
*/
      - friend_response: me_id sends user_id a friend response(upon seeing
         friend request)
/*
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/friend_response?user_id={id}
&me id={id}
* params: user id & me id
* return:
* if user exists:
                          200: return true with status code: 1
* if user doesn't exist:
                          200: return false with status code: 0
* if add fails:
                          error: return error code
*/
      - add_friend_userid: me_id & user_id becomes friend(upon seeing friend
         response)
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/add friend userid?user id={id
}&me id={id}
* params: user id & me id
```

```
* return:
* if user exists:
                          200: return "success" / "already friends" with status code: 1
* if user doesn't exist:
                          200: return "no such user/me" with status code: 0
* if add fails:
                          error: return error code
*/
      - delete_friend_userid: user_id and me_id becomes strangers
* method: DELETE
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/delete friend userid
* params: JSON containing user id & me id
* return:
                          200: return "friendship ends!" or "you're not friends!" with
* if user exists:
status code: 1
* if user doesn't exist:
                          200: return "no such user" or "no me" with status code: 0
* if group doesn't exist: 200: return "no such group" with status code: 0
* if add fails:
                          error: return error code
*/
      - clear_friend_request: clears all user_id's friend requests
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/clear friend request?user id=
{id}
* params: user id
* return:
* if user exists:
                          200: return true with status code: 1
* if user doesn't exist:
                          200: return false with status code: 0
* if add fails:
                          error: return error code
*/
```

- clear_friend_response: clears all user_id's friend response

```
/*
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/clear friend response?user i
d=\{id\}
* params: user id
* return:
* if user exists: 200: return true with status code: 1
* if user doesn't exist: 200: return false with status code: 0
* if add fails:
                          error: return error code
*/
         get_friend_request: get user_id's friend requests
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/get friend request?user id={i
d}
* params: user id
* return:
* if user exists: 200: return true with status code: 1
* if user doesn't exist: 200: return false with status code: 0
* if add fails:
                          error: return error code
*/
         get_friend_response: get user_id's friend response
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/get friend response?user id=
{id}
* params: user id
```

```
* return:
* if user exists: 200: return true with status code: 1
* if user doesn't exist: 200: return false with status code: 0
* if add fails:
                      error: return error code
*/
Group Related APIs:
     set_group: set the group_id for multiple friends
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/set_group
* params: user ids(array of user id), me id, group id in JSON
* return:
* if each user is a friend of me: set is true(regardless of user current group)
* if not:
                           return false and code 0
* else:
                           return error code
*/
     - unset_group: release multiple friends from the same group
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/unset_group
* params: user ids, me id, group id
* return:
* if each user is a friend of me: unset is true (regardless of user's current group)
* if not:
                           return false and code 0
* else:
                           return error code
*/
Post Related APIs
     create_post: when user creates a new post
```

/*

```
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/create_post
* params: post profile JSON: requires user id; group id is defaulted "0" if not specified
* return:
* if create post is successful:
                                 return post id in posts(collection) with code 1
* if user id/group id is not valid: return "no such user" or "no such group" with code 0
* if not:
                                 return error code
*/
      update_post: when user updates his/her post
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/update_post
* params: post profile JSON: requires user id & group id
* return:
                                 return "post updated!" or "this post is not yours!"
* if update post is successful:
with code 1
* if no such post/user:
                                 return "no such post/user" with code 0
* if not:
                                 return error code
*/
      delete_post: when user deletes his/her post
* method: DELETE
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/delete_post
* params: post profile JSON
* return:
                                 return "post deleted!" or "this post is not yours!"
* if delete post is successful:
with code 1
                                 return "no such post/user" with code 0
* if post/user is invalid:
* if not:
                                 return error code
*/
```

* method: POST

```
get_mypost: when user visits his/her homepage
/*
* method: GET
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/get_mypost?user_id={id}
* params: user id
* return:
* if get is successful:
                          return user's posts (no comments/replies) with code 1
* if user doesn't exist:
                          return {} with code 0
* if not:
                          return error code
*/
      - get_friendpost: when user visits a friend's homepage
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/get_friendpost?user_id={id}&fr
iend id={id}
* params: user_id, me_id
* return:
* if get is successful:
                                        return friend's posts with code 1
* if user doesn't exist or not friends:
                                        return {} with code 0
* if not:
                                        return error code
*/
      - get_myfeed: when user visits his/her main page
* method: GET
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/get_myfeed?user_id={id}
* params: user id
* return:
* if get is successful:
                          return user's feeds with code 1
* if user doesn't exist:
                          return {} with code 0
```

```
* if not:
                       return error code
*/
      - like_post: when user likes a post
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/like_post
* params: user id & post id
* return:
* if like post is successful: return true/false if user not liked/liked before
* if not such user:
                     return false
* if not:
                             return error code
*/
      - unlike_post: when user unlikes a post
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/unlike_post
* params: user id & post id
* return:
* if like post is successful: return true/false if user liked/unliked before
* if not such user:
                             return false
* if not:
                             return error code
Comment Related APIs
      - create_comment:
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/create comment
* params: post id,user id, comment JSON
* return:
```

```
* if comment is successful:
                                return comment id with code 1
                                return "no such user" or "no such post" with code 0
* if invalid user/post:
* if else:
                                return error
*/
      update_comment
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/update comment
* params: post id,user id, comment id,comment JSON
* return:
* if update is successful:
                                      return comment id with code 1
* if invalid user/post/comment id:
                                      return "no such user/post/comment!" with 0
* if else:
                                      return error
*/
      delete_comment
* method: DELETE
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/delete comment
* params: post id,user id, comment id,comment JSON
* return:
                         return "success" with code 1
* if delete is successful:
* if invalid user/post/comment: return "no such post/user/comment!" with code 0
* if else:
                                return error
*/
      show_comment
* method: GET
* url:
https://us-central1-cse112sp18teamxii.cloudfunctions.net/show comment?post id={id}
* params: post id
```

```
* if show is successful:
                       return JSON of all comments (no replies)
                       return "no such postr!" with code 0
* if invalid user/post:
* if else:
                        return error
*/
Reply Related APIs
      create_reply
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/create reply
* params: post id,user id, comment id, reply JSON
* return:
* if reply is successful:
                       return reply id
* if invalid user/post:
                       return "no such user/comment!" code 0
* if else:
                        return error
*/
      update_reply
* method: POST
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/update reply
* params: post id,user id, comment id,reply id, reply JSON
* return:
* if update is successful:
                             return reply id
* if invalid user/post:
                             return "no such user/comment/post/reply!" with code 0
* if else:
                             return error
*/
      delete_reply
* method: DELETE
```

* return:

```
* url: https://us-central1-cse112sp18teamxii.cloudfunctions.net/delete reply
```

* params: post_id,user_id, comment_id,reply_id, reply JSON

* return:

* if delete is successful: return "success"

* if invalid user/post: return "no such user/comment/post/reply!" with code 0

* if else: return error

*/

- show_reply

/*

* method: GET

* url:

https://us-central1-cse112sp18teamxii.cloudfunctions.net/show_reply?post_id={id}&comment id

* params: post_id,comment_id

* return:

* if show is successful: return JSON of all replies

* if invalid user/post: return "no such comment/post!" code 0

* if else: return error

*/