TripSharing

Agenda

TRIP SHARING

1. INTRODUCTION

Background

lượt khách trên năm

Number of local tourists reach 80 million in 2018

Number of tourist in Vietnam increase rapidly

Young tourists tend to explore wild place

People love to talk about their experience

Some people feel difficult to find a travel companion

TỔNG QUAN VỀ CHỦ ĐỀ DU LỊCH TRÊN SOCIAL MEDIA

Lượng bài viết và thảo luận: **4,282,678**
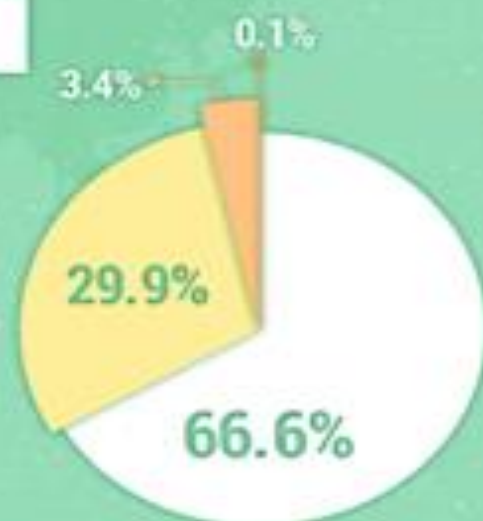
Những người tham gia thảo luận:

GIỚI TÍNH

64.60%   35.40%

ĐỘ TUỔI

- 13-17
- 18-24
- 25-34
- >34

0.1%
3.4%
29.9%
66.6%

Thời gian: 1/03 - 31/05/2016

Exist system

Advantages

- They already have a booking system
- They have huge amount of data

Limitations

- They only focus on famous travel destination
- Their finding-travel-companion feature doesn't have a group chat for discussion

Our proposal

- Focus on both well-known and lesser-known travel places, even if it has not be discovered

- Allows users to share their travel experience by articles and images

- All users' contribution on the system are recorded as point

- Has finding-travel-companion feature

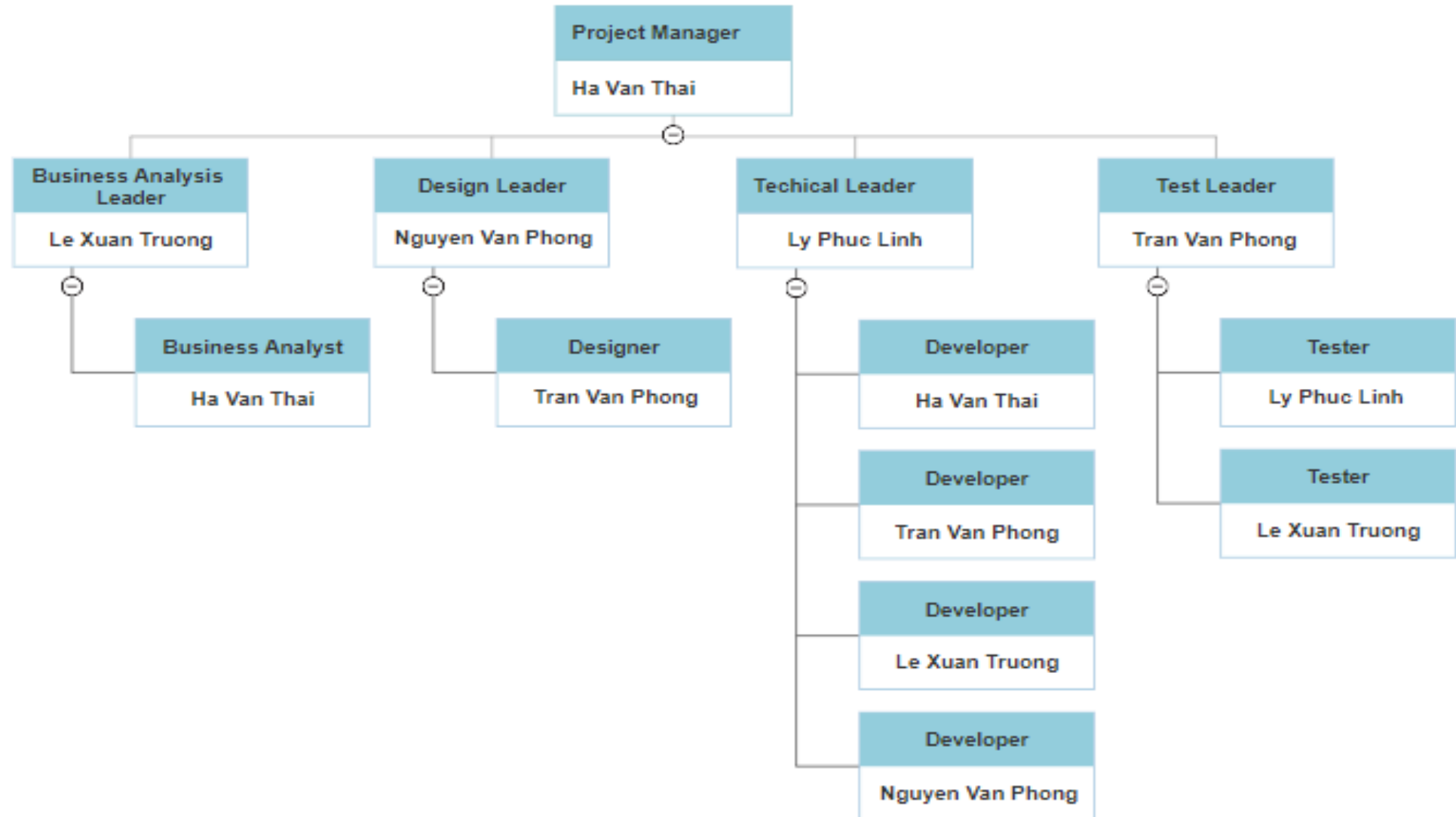TRIP | SHARING
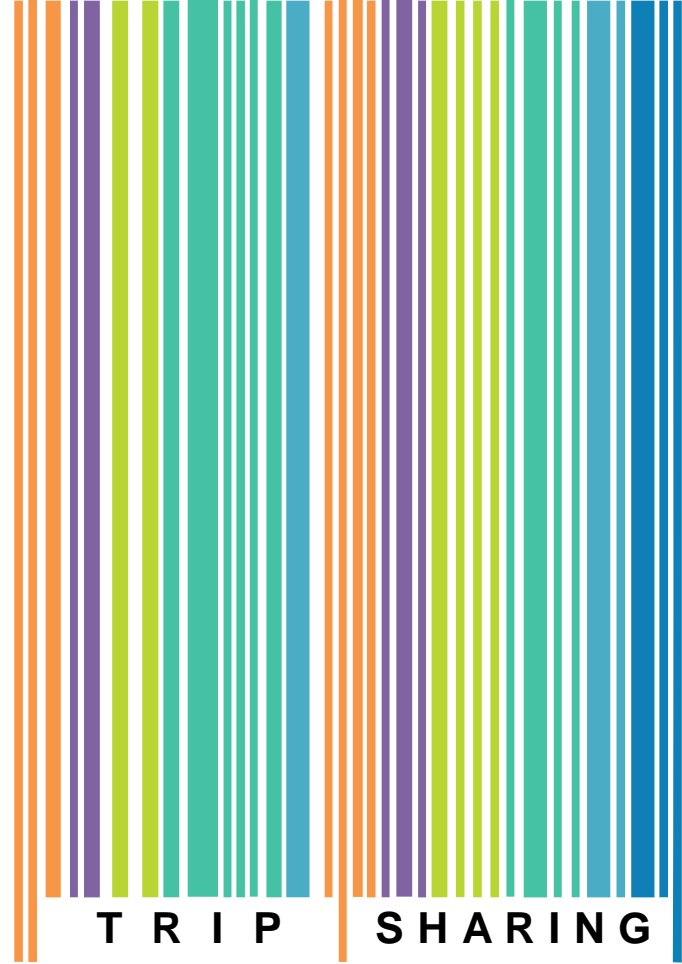
2. PROJECT MANAGEMENT

Software Development Process

Iterative and Incremental Software Development Model

Advantages:

❖ Generates working software quickly and early during the software lifecycle

❖ This model is more flexible – less costly to change scope and requirements

❖ It is easier to test and debug during a smaller iteration

❖ Easier to manage risk because risky pieces are identified and handled during its iteration

Organization Structure

Work Breakdown Structure

	i	Task Mode	Task Name	Duration	Start	Finish	Predecessors
0			⊿ **TripSharing**	**88 days?**	**Mon 5/13/19**	**Wed 8/28/19**	
1			▷ **Initiating**	**5 days?**	**Mon 5/13/19**	**Fri 5/17/19**	
11		📌	⊿ **Executing**	**76 days**	**Sat 5/18/19**	**Mon 8/19/19**	
12			⊿ **Phase 1**	**54 days?**	**Sat 5/18/19**	**Fri 7/19/19**	
13		📌	▷ **Planning**	**11 days**	**Sat 5/18/19**	**Tue 5/28/19**	1
36			▷ **Requirements**	**4 days**	**Mon 5/27/19**	**Thu 5/30/19**	13
44		📌	▷ **Analysis and Design**	**7 days**	**Sat 6/1/19**	**Sat 6/8/19**	36
54		📌	▷ **Implementation**	**31 days**	**Mon 6/10/19**	**Wed 7/17/19**	44
61			▷ **Testing**	**30 days**	**Wed 6/12/19**	**Thu 7/18/19**	44
66		📌	▷ **Evaluation**	**1 day?**	**Fri 7/19/19**	**Fri 7/19/19**	
71			⊿ **Phase 2**	**21 days?**	**Mon 7/22/19**	**Mon 8/19/19**	12
72			▷ **Planning**	**1.5 days?**	**Mon 7/22/19**	**Tue 7/23/19**	
92			▷ **Requirements**	**2 days?**	**Tue 7/23/19**	**Wed 7/24/19**	72
100			▷ **Analysis and Design**	**1 day?**	**Thu 7/25/19**	**Thu 7/25/19**	92
110			▷ **Implementation**	**14 days**	**Fri 7/26/19**	**Wed 8/14/19**	100
117			▷ **Testing**	**16 days**	**Fri 7/26/19**	**Fri 8/16/19**	100
122		📌	▷ **Evaluation**	**2 days?**	**Sat 8/17/19**	**Mon 8/19/19**	
127			⊿ **Closing**	**7 days**	**Tue 8/20/19**	**Wed 8/28/19**	
128			▷ **Documentation**	**7 days**	**Tue 8/20/19**	**Wed 8/28/19**	
135			▷ **Deployment**	**5 days**	**Tue 8/20/19**	**Mon 8/26/19**	

Coding Use case plan

TripSharing
Coding tasks plan for TripSharing project

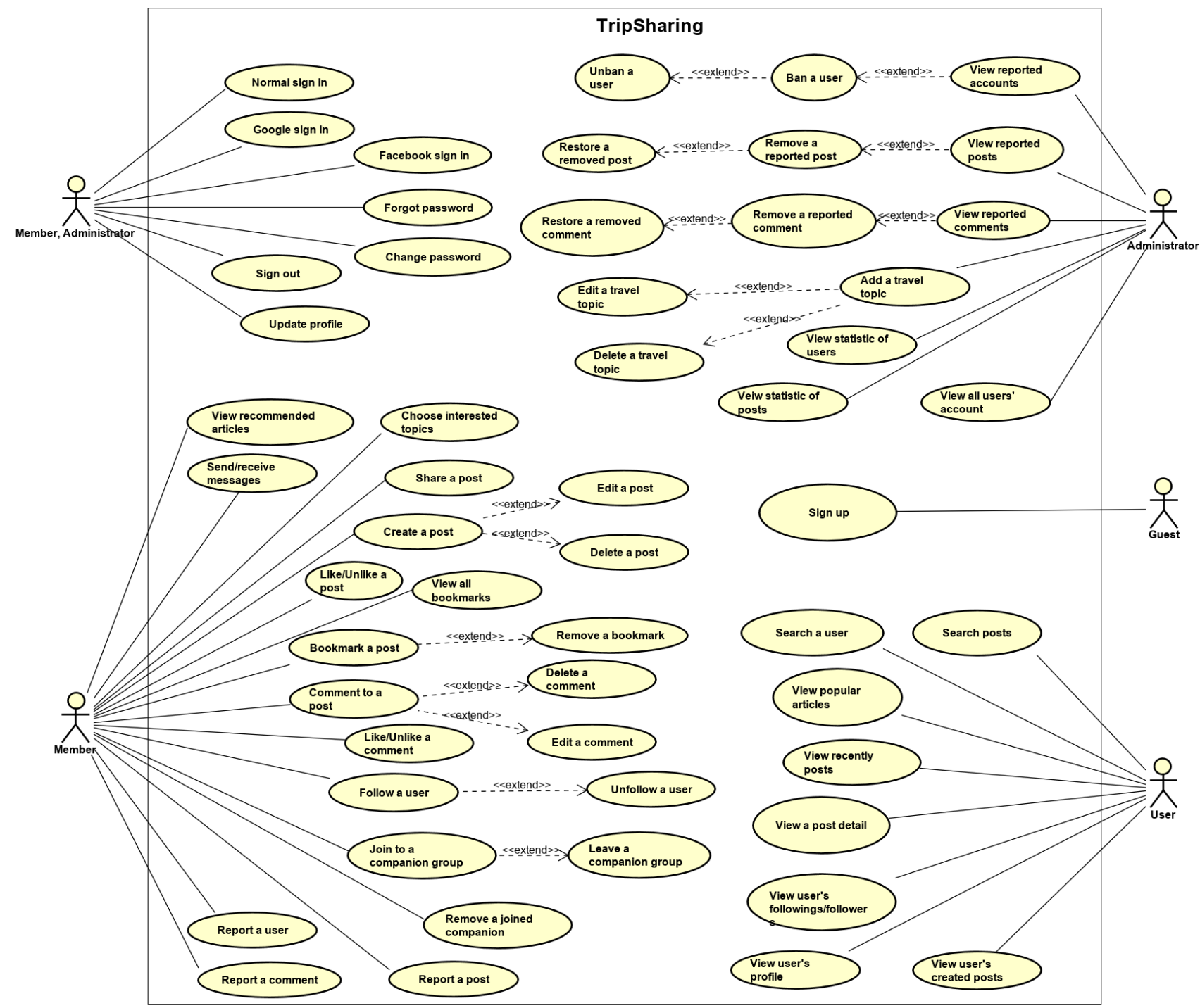| UC-code	List usecases	Phase	Front-end	Back-end	Start	Finish	Status	Note
UC-001	Sign up	1	PhongTV	LinhLP	06/06/2019	07/06/2019	Done	
UC-002	Google sign in	1	PhongTV	LinhLP	14/06/2019	16/06/2019	Done	
UC-003	Facebook sign in	1	PhongTV	LinhLP	14/06/2019	16/06/2019	Done	
UC-004	Normal sign in	1	PhongTV	ThaiHV	06/06/2019	08/06/2019	Done	
UC-005	Forgot password	1	PhongTV	LinhLP	07/06/2019	07/06/2019	Done	
UC-006	Sign out	1	PhongTV	LinhLP	07/06/2019	08/06/2019	Done	
UC-007	Change password	1	PhongTV	LinhLP	07/06/2019	08/06/2019	Done	
UC-008	Update profile	1	PhongTV	TruongLX	08/06/2019	10/06/2019	Done	
UC-009	Choose interested topic	1	PhongTV	TruongLX	07/06/2019	08/06/2019	Done	
UC-010	Create a post	1	PhongNV	ThaiHV	10/06/2019	14/06/2019	Done	
UC-011	Edit a post	1	PhongNV	ThaiHV	10/06/2019	14/06/2019	Done	
UC-012	Delete a post	1	PhongNV	ThaiHV	10/06/2019	14/06/2019	Done	
UC-013	Like/Unlike a post	1	PhongTV	TruongLX	14/06/2019	16/06/2019	Done	
UC-014	Share a post	1	PhongNV	ThaiHV	01/08/2019	03/08/2019	Done	
UC-015	Report a post	2	PhongTV	LinhLP	01/08/2019	05/08/2019	Done	
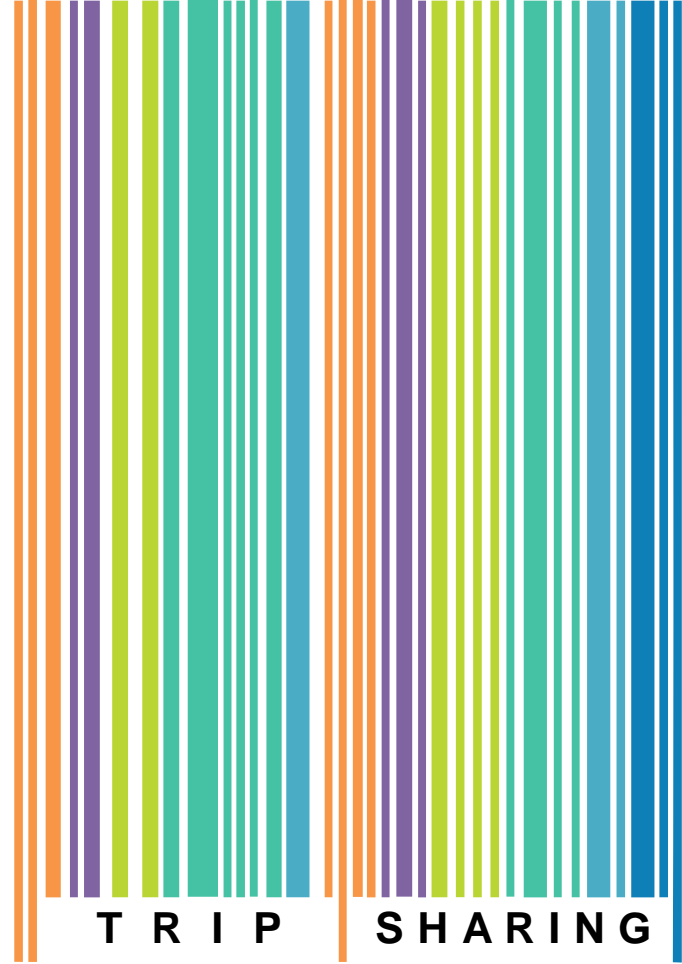
TRIP SHARING

3. SOFTWARE REQUIREMENT SPECIFICATION

Roles

Actor	Description
Guest	Anyone who visits the website and doesn't have an account yet.
Member	Those who has registered an account on TripSharing.
Administrator	Who has the highest the permission level and has responsible for managing the entire website.

Use case Diagram

TripSharing

Actors: Member, Administrator / Administrator / Guest / User / Member

Authentication (Member, Administrator):
- Normal sign in
- Google sign in
- Facebook sign in
- Forgot password
- Change password
- Sign out
- Update profile

Administrator:
- Unban a user
- Ban a user ‹‹extend›› View reported accounts
- Ban a user ‹‹extend›› Unban a user
- Restore a removed post
- Remove a reported post ‹‹extend›› Restore a removed post
- View reported posts ‹‹extend›› Remove a reported post
- Restore a removed comment
- Remove a reported comment ‹‹extend›› Restore a removed comment
- View reported comments ‹‹extend›› Remove a reported comment
- Edit a travel topic
- Add a travel topic ‹‹extend›› Edit a travel topic
- Add a travel topic ‹‹extend›› Delete a travel topic
- Delete a travel topic
- View statistic of users
- Veiw statistic of posts
- View all users' account

Member:
- View recommended articles
- Choose interested topics
- Send/receive messages
- Share a post
- Create a post ‹‹extend›› Edit a post
- Create a post ‹‹extend›› Delete a post
- Edit a post
- Delete a post
- Like/Unlike a post
- View all bookmarks
- Bookmark a post ‹‹extend›› Remove a bookmark
- Remove a bookmark
- Comment to a post ‹‹extend›› Delete a comment
- Comment to a post ‹‹extend›› Edit a comment
- Delete a comment
- Edit a comment
- Like/Unlike a comment
- Follow a user ‹‹extend›› Unfollow a user
- Unfollow a user
- Join to a companion group ‹‹extend›› Leave a companion group
- Leave a companion group
- Report a user
- Remove a joined companion
- Report a comment
- Report a post

Guest:
- Sign up

User:
- Search a user
- Search posts
- View popular articles
- View recently posts
- View a post detail
- View user's followings/followers
- View user's profile
- View user's created posts

Non-Functional Requirements

|	
Security	- Use token-based authentication to validate authorize request - All query made to MongoDB must be escaped so no NoSQL Injection - All passwords are encrypted with salt
Maintainability	- Microservices architecture for backend - Object Oriented Programming paradigm is applied - Using TSLint for a consistent coding convention
Availability	- Google Cloud service for automatic horizontal scalability - Load balancing technique are applied for both frontend and backend instances.
Performance	- Backend system uses background job for external requests, heavy processing requests such as sending email
Usability	- Links, buttons and checkboxes are easily clickable - All significant actions on website have confirm dialog - Search is available on every page, not just the homepage
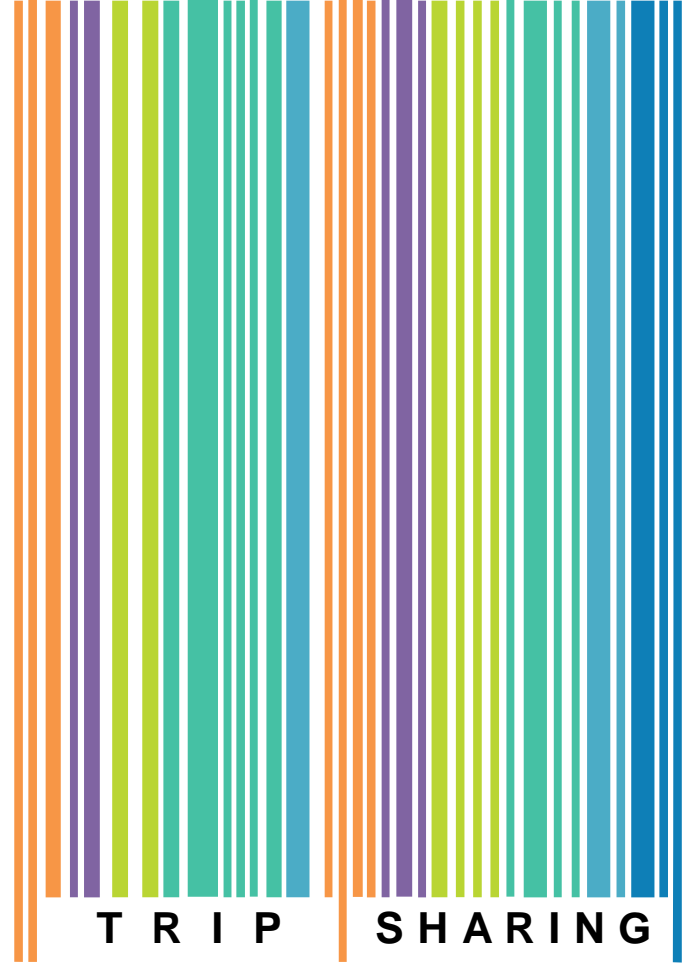
TRIP | **SHARING**

4. SOFTWARE DESIGN

Software Architecture
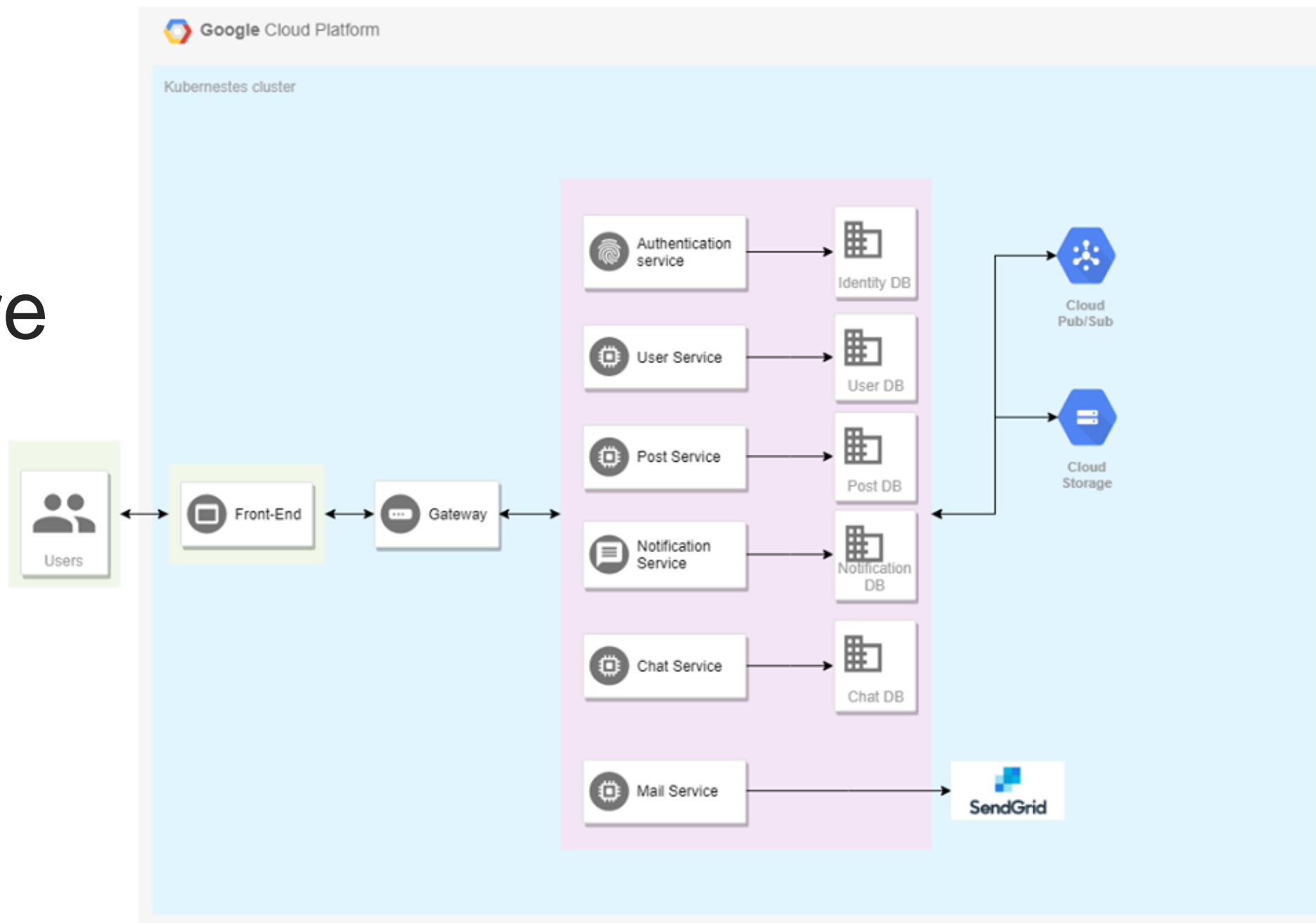
Software Architecture Explanation
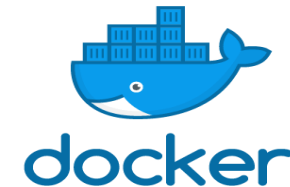
Architecture Layer Design
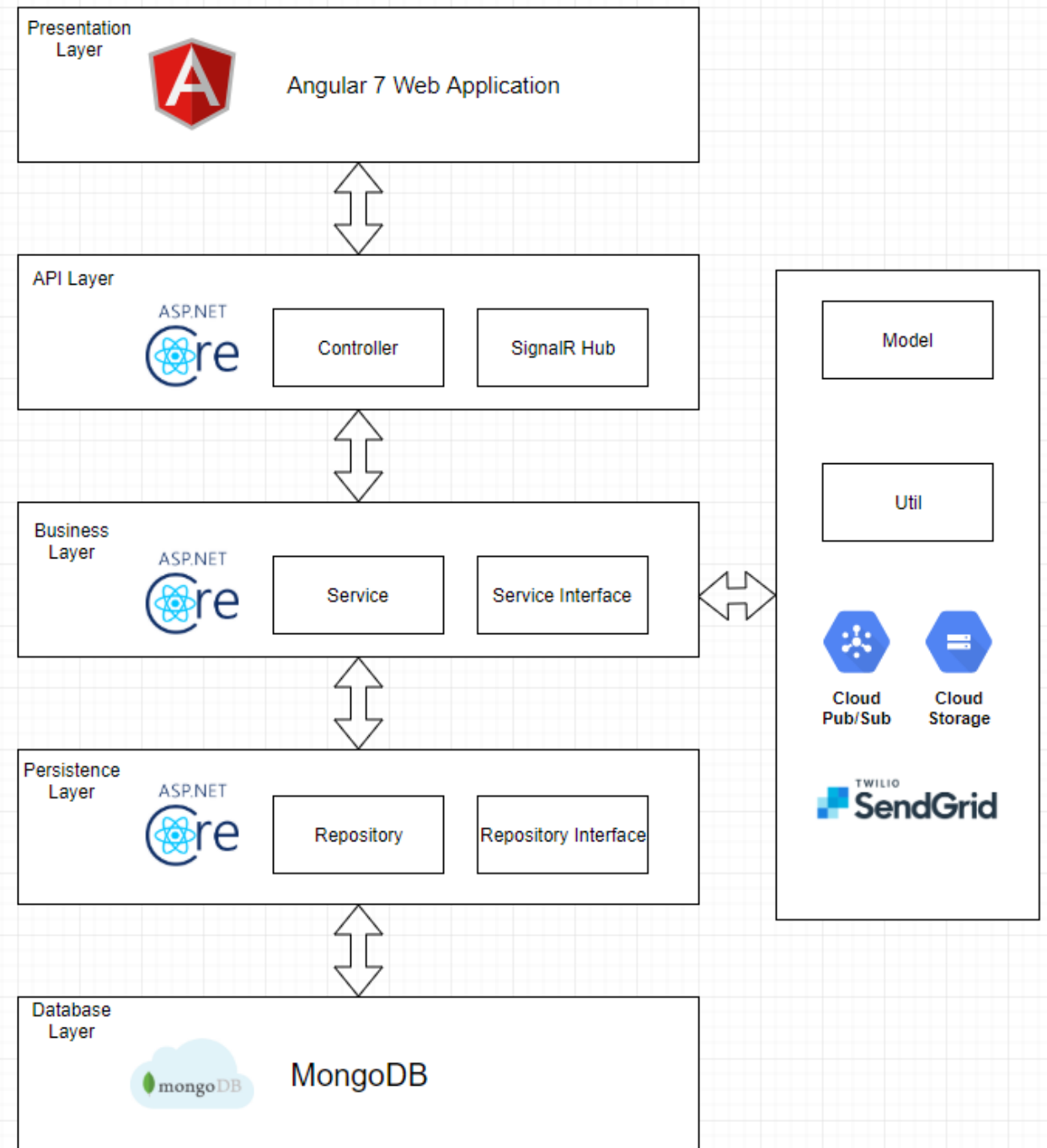
Identity Provider Database Design

TripSharing-Identity

BlackListTokens

_id	pk	< old >	*
token		< str >	*

Accounts

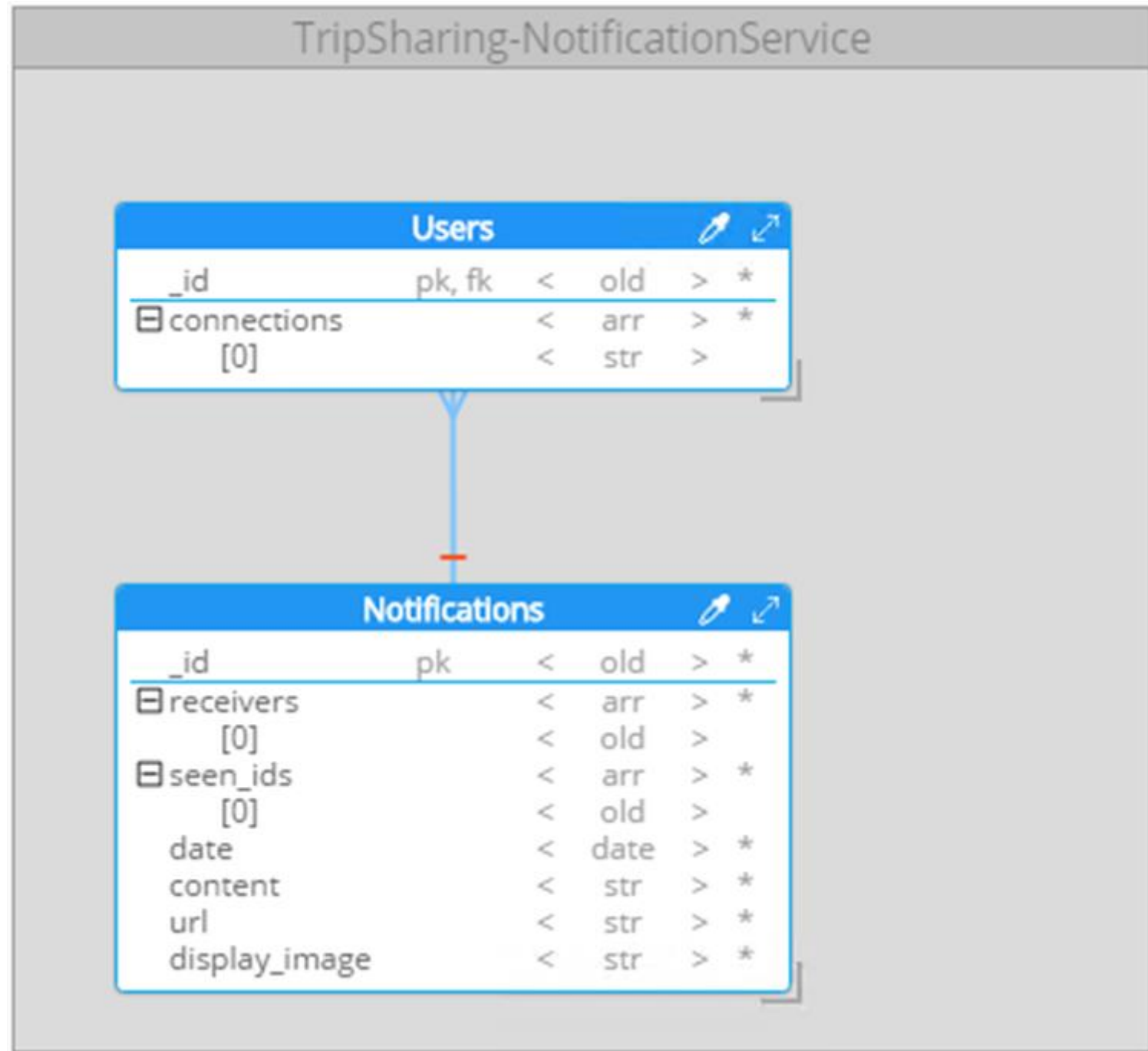|				
_id	pk	< old >	*
email		< multi >	
password		< str >	*
password_salt		< str >	*
user_id		< old >	*
role		< str >	*
facebook_id		< str >	
google_id		< str >	

Post Database Design
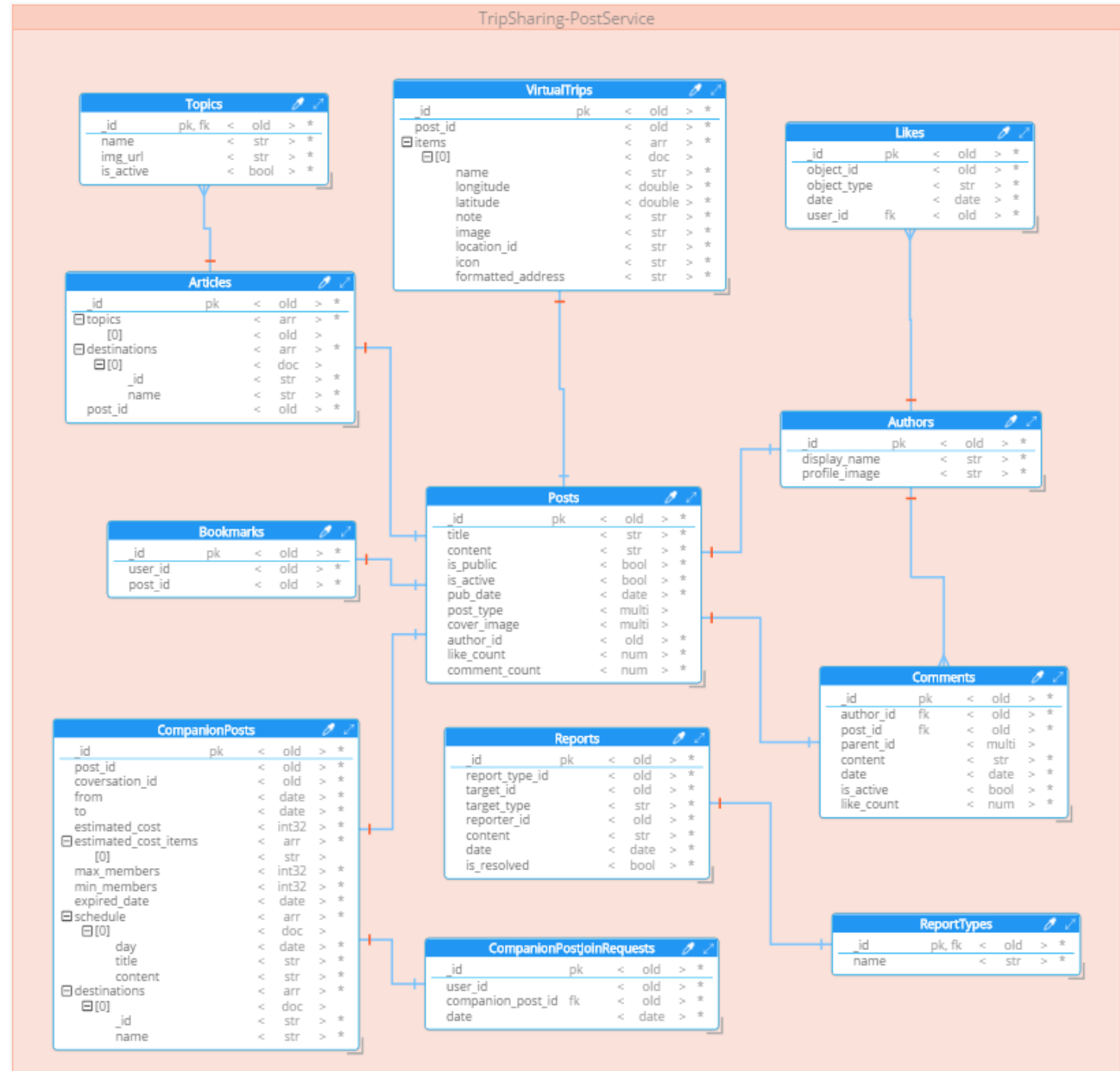
Conversation Database Design
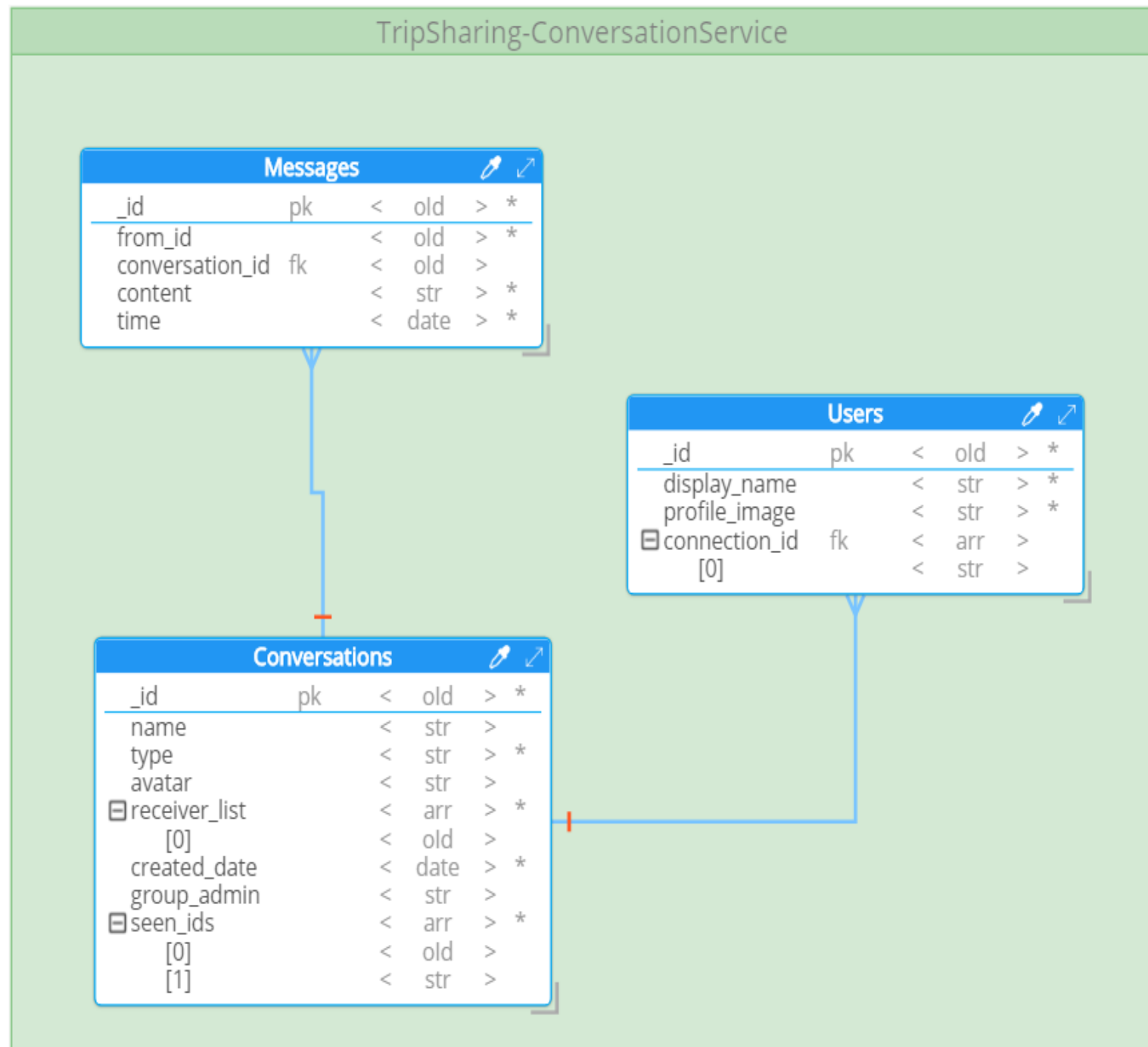
Notification Database Design

Detail design example

Normal sign in
Class diagram

pkg

Front-end

LoginPageComponent
- userService : UserService
- authService : AuthService

+ signInWithEmail() : void
+ handleGetAccountSuccessful() : void

UserService
- apiUrl : string
- apiUserService : string

+ getAccount() : Observable

IdentityProvider

AccountController
- _accountService : IAccountService
- _tokenManager : ITokenManager

+ Authenticate() : Observable

AccountService
- _accountRepository : IAccountRepository
- _settings : IOptions<AppSettings>

+ Authenticate() : Account

AccountRepository
- _accounts : IMongoCollection<Account>

+ GetByEmail() : Account

Detail design example

Normal sign in
Sequence diagram

TRIP SHARING
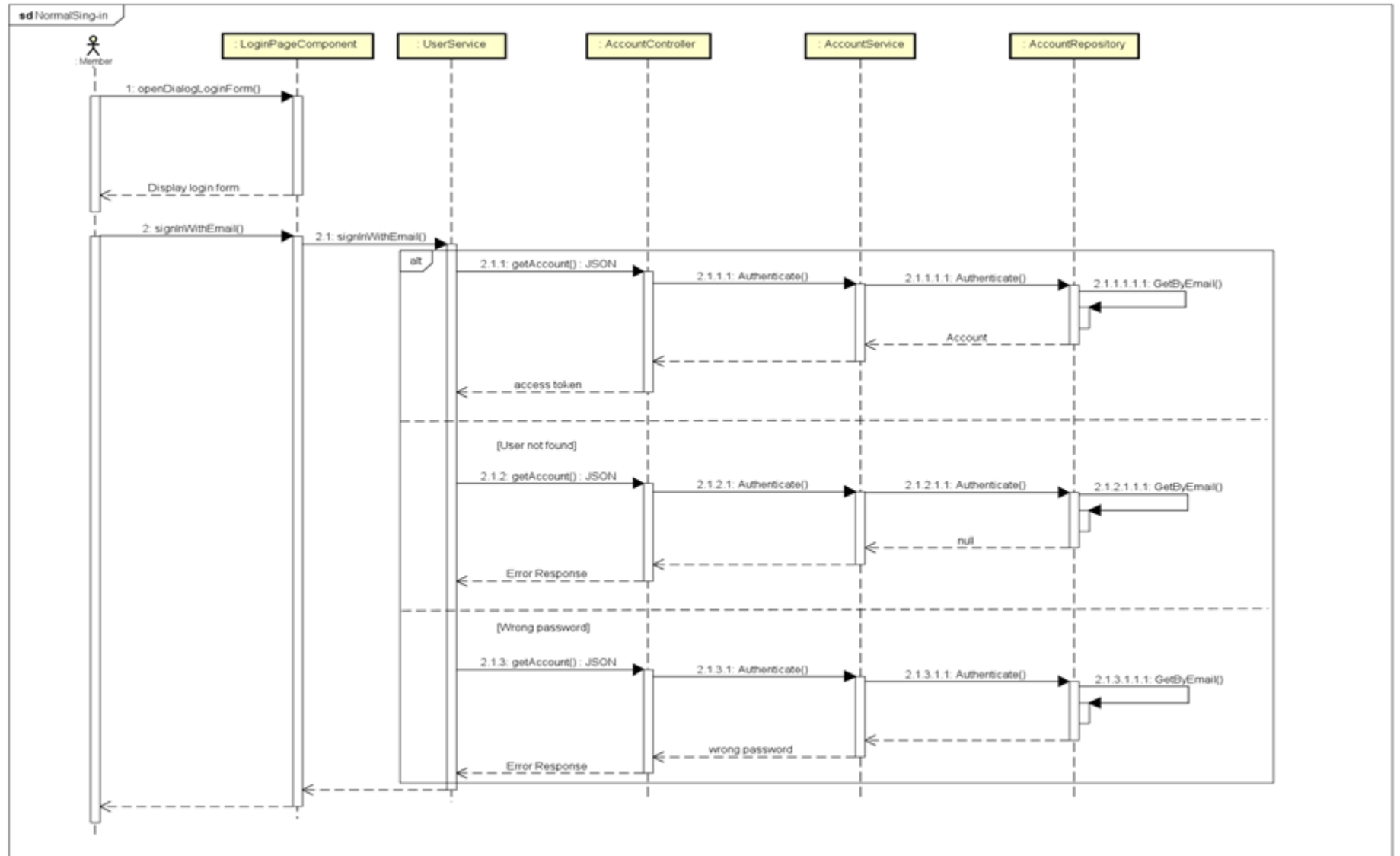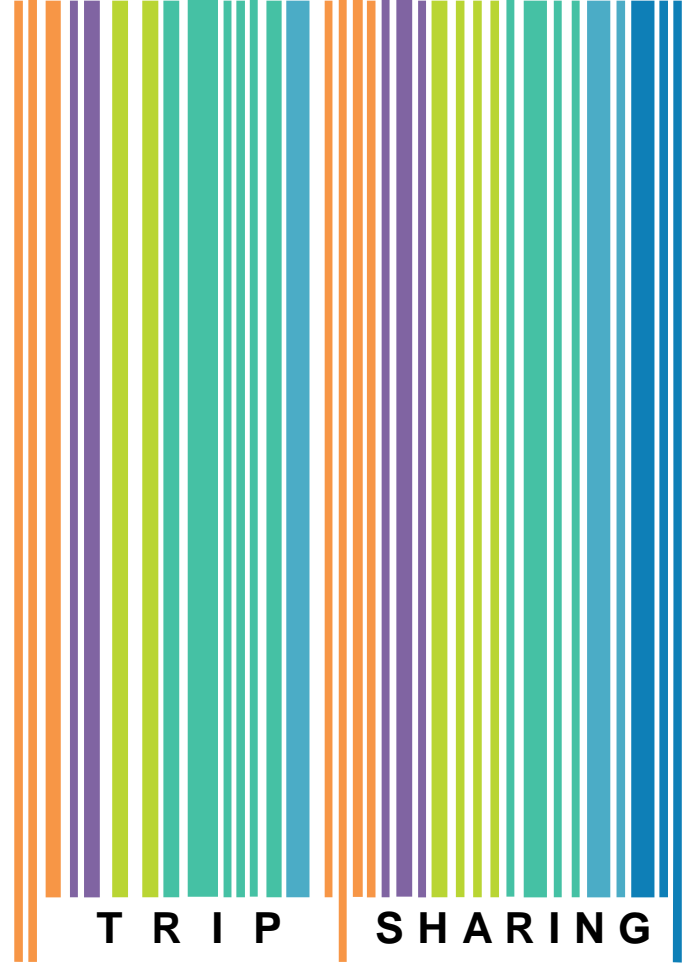
5. TESTING

Testing Tools

V-Model
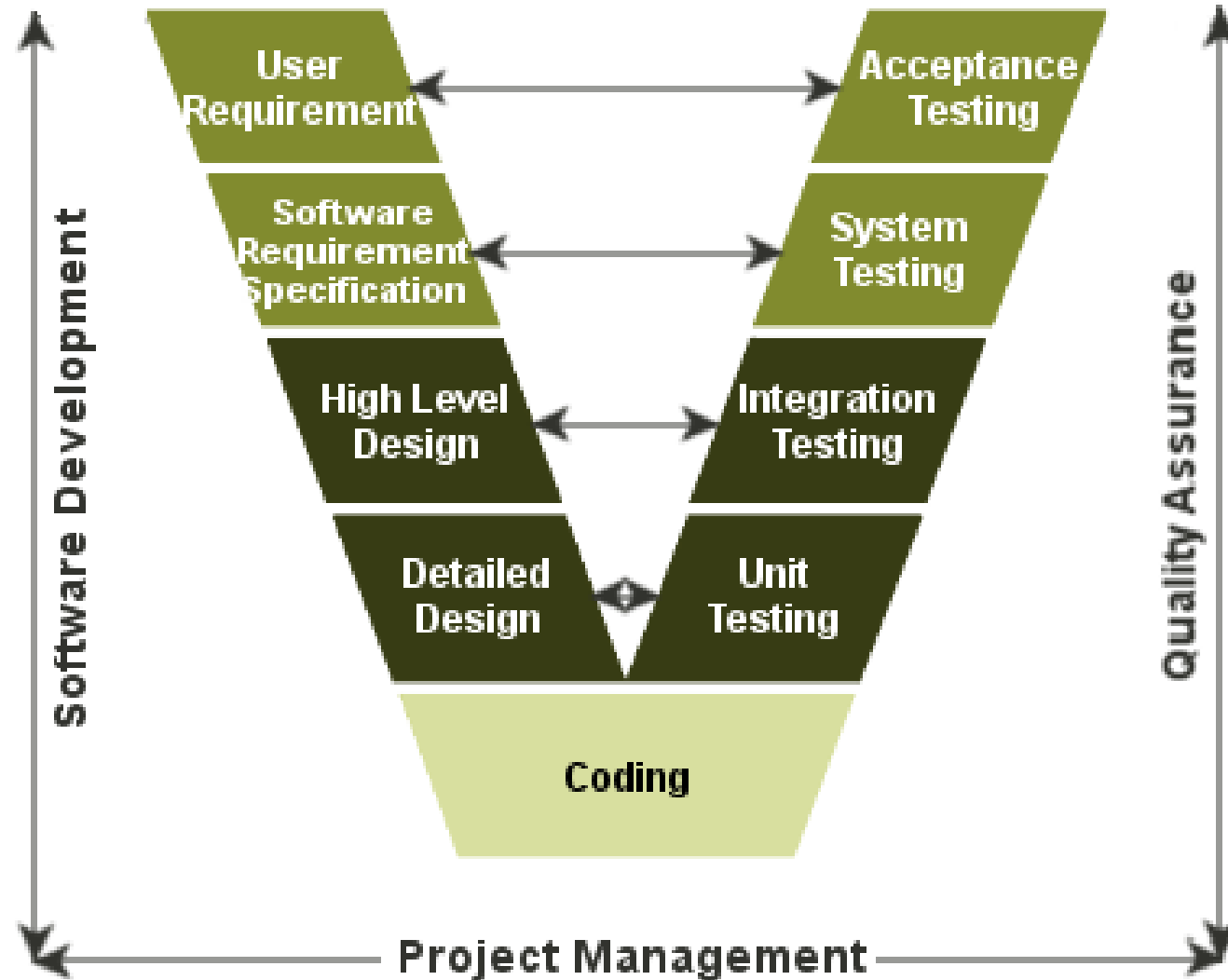
Test Report

	Number of test cases
Unit Test	249
Integration Test	398
System Test	105
Coverage	78%

Acceptance Test

ID	Checklists	Yes	No
	Functional		
CL-001	User can sign up a new account	✓	
CL-002	User can sign in to TripSharing.net by Facebook account	✓	
CL-003	User can sign in to TripSharing.net by Google account	✓	
CL-004	User can sign in to TripSharing.net by normal account	✓	
CL-005	User can change the new password for account	✓	
CL-006	User can reset the password	✓	
CL-007	User can update profile and update information	✓	
CL-008	User can choose more interested topics	✓	
CL-009	User can create a new article	✓	
CL-010	User can create a new virtual trip	✓	
CL-011	User can create a new finding companion post	✓	
CL-012	Users are allowed to delete their own posts	✓	
CL-013	Users are allowed to edit their own posts	✓	
CL-014	User can join to a companion group that other member created	✓	
CL-015	User can leave to a companion group that other member created	✓	

TRIP SHARING
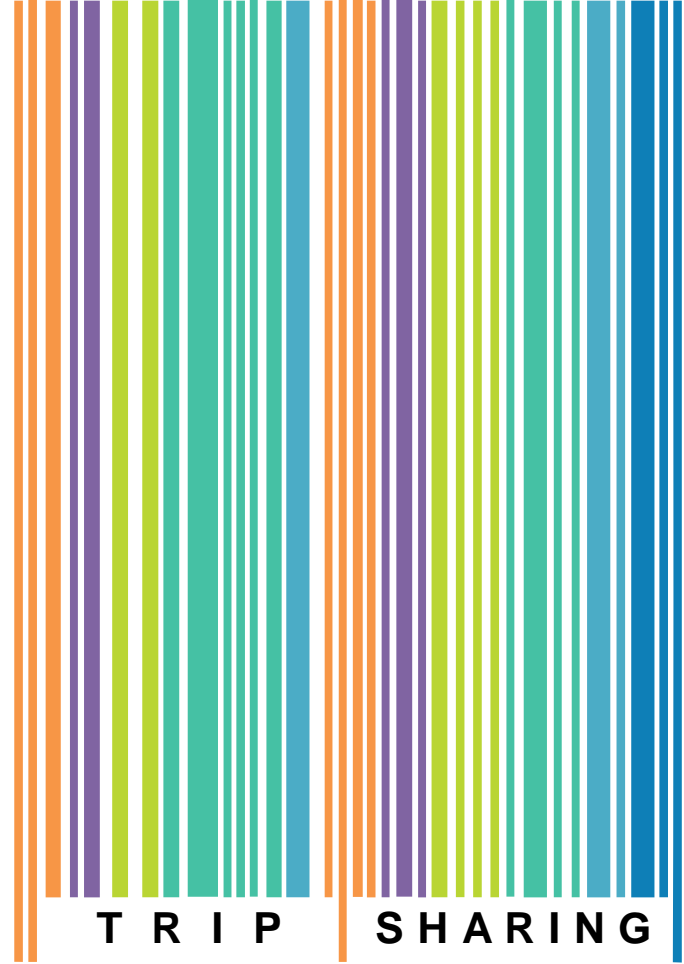
6. DEMONSTRATION

Thank You