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**Capstone Project Report**

**TripSharing**

|  |  |
| --- | --- |
| **Group** | |
| **Group Members** | Hà Văn Thái – SE04801  Nguyễn Văn Phong – SE05051  Trần Văn Phong – SE05048  Lê Xuân Trường – SE04616  Lý Phúc Linh – SE04693 |
| **Supervisor** | Đào Trọng Duy |
| **Capstone Project Code** | TripSharing |

**Hanoi, May 30th, 2019**

**Chapter 1: Introduction**

* 1. **Purpose**

This chapter provide an overview of the project include background information, a literature review of existing system and raising a proposal for ideas of improvement.

* 1. **Project Information**
* Project name: **TripSharing**
* Project code: **TRIPSHARING**
* Project group name: **SWP491\_G26**
* Project type: **Web Application**
* Timeline: **From 13th May 2019 to 30th August 2019**
  1. **The People**
     1. **Supervisors**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Full name** | **Phone** | **E-mail** | **Title** |
| Supervisor | Đào Trọng Duy | 0983204196 | duydt@fe.edu.vn | Lecturer |

Table -1: Supervisors' information

* + 1. **Team Members**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Full name** | **Phone** | **E-mail** | **Role in Group** |
| 1 | Hà Văn Thái | 0349940158 | thaihvse04801@fpt.edu.vn | Leader |
| 2 | Nguyễn Văn Phong | 0978296187 | phongnvse05051@fpt.edu.vn | Member |
| 3 | Trần Văn Phong | 0987489397 | phongtvse05048@fpt.edu.vn | Member |
| 4 | Lê Xuân Trường | 0964038801 | truonglxse04616@fpt.edu.vn | Member |
| 5 | Lý Phúc Linh | 0362442818 | linhlpse04693@fpt.edu.vn | Member |

Table 1-2: Team member's information

* 1. **Background**

Along with the development of technology, tourism demand is getting higher, especially young people. Nowadays, people mostly find information about where they want to go on the internet and social network like Facebook, TripAdvisor, Gody.vn, etc. But many websites only provide general information about the destination and only focus on advertising and support booking hotel, restaurant, travel tour…. We can find such post on Facebook but it scattered on many pages and there are many posts created for advertising purpose may make people concern about the correctness of the information.



Figure -1: Number of local tourists reach 80 million in 2018[[1]](#footnote-1)

Among young people, tourism for exploring and experience is becoming a new trend, and people usually want to share their experience online:

*“Khảo sát về xu hướng du lịch toàn cầu trong năm 2018 do Visa thực hiện với sự tham gia của hơn 15.000 người đến từ 27 quốc gia, trong đó có Việt Nam đã chỉ ra rằng khách du lịch hiện nay thường mong muốn đạt được cả hai mục tiêu “khám phá” và “tận hưởng” trong những chuyến đi của mình. Kết quả khảo sát đã đưa ra ba nhóm động lực chính cho những chuyến du lịch là: gắn kết gia đình, bạn bè (33%), thư giãn (11%) và trải nghiệm (10%). Ranh giới giữa những động lực thúc đẩy người dân đi du lịch đang dần bị xóa nhòa. Những người du lịch vì cảm giác “tận hưởng” thường đi để gắn kết với bạn bè, người thân hay đơn giản là tận hưởng thời gian nghỉ dưỡng của riêng mình. Riêng những du khách đi du lịch để “khám phá” có xu hướng trải nghiệm nhiều hơn với các nền văn hóa mới và thăm quan những điểm đến hấp dẫn. 63% người được hỏi trả lời rằng họ đi du lịch vì cả hai lý do này, tỉ lệ tương ứng tại Việt Nam là 72%.”[[2]](#footnote-2)*



Figure 1-2: Sharing travel information on social media[[3]](#footnote-3)

* + 1. **The exist sharing travel experience systems are focus on famous travel destination and booking services**

Our study shows that travel guides, travel destinations reviews websites are focusing too much on advertising and booking for travel destination than the travel experience of users. Example on Tripadvisor.com and Toidi.net are 2 big websites, but they don’t provide enough interaction between users, Toidi.net is more like a blog then the posts are subjective, on Tripadvisor.com people can post photo or review for a destination but there is no comment section for other to interact with each other. The creation of this project is aiming to improve the lack of interaction between users and focus more on sharing experiences through the trip.

* + 1. **TripAdvisor’s Advantages and Disadvantages**
       1. **TripAdvisor’s Advantages**
* They already have a booking system.



Figure 1-3: Booking function on TripAdvisor

* User can create a virtual trip



Figure 1-4: Creating a virtual trip function on TripAdvisor

* + - 1. **TripAdvisor’s Disadvantages**
* User can’t comment on other’s posts or photos so they are lack of interaction between users.
* Don’t support users for writing a long sharing experience post, like blog.
  1. **Proposal of System**
     1. **Our Proposal System**

After reviewing all properties of the existing systems as well as the travel trend of young people in Viet Nam, we have come to decision to develop a travel sharing system which allows travelers to share their travel experiences by images, articles or blogs. It will make easier for other travelers to prepare their plans. The purpose of the system is creating a travel community to exchange information. The system is going to encourage travelers to share their experiences by recording their contributions as points and rank all contributors. If contributors have a high rank, they will receive many incentives from the system.

The system does not focus on booking services. A common trip includes three stages. The first stage is planning, the second is experiencing, and the last is sharing. Our system is going to focus on the sharing stage.

* + - 1. **System Functions**
* Allow users to register/sign in with email address.
* Allow users to create/edit their own profile.
* Allow users to search travel destination.
* Allow users to choose interesting topic.
* Allow users to create/edit/delete their post.
* Allow users to like/unlike a post.
* Allow users to share a post to social media.
* Allow users to bookmark a post.
* Allow users to comment to a post.
* Allow users to report a post/comment.
* Allow users to create/edit/delete their virtual trips.
* Allow users to follow/unfollow other users.
* Allow users to block/unblock other users.
* Allow users to create/edit/delete their finding companion posts.
* Allow users to join a finding companion group.
* Allow users to send/receive messages to other users.
* Allow Administrators to manage users’ account, users’ posts, users’ comments.
  + - 1. **The TripSharing User Process**

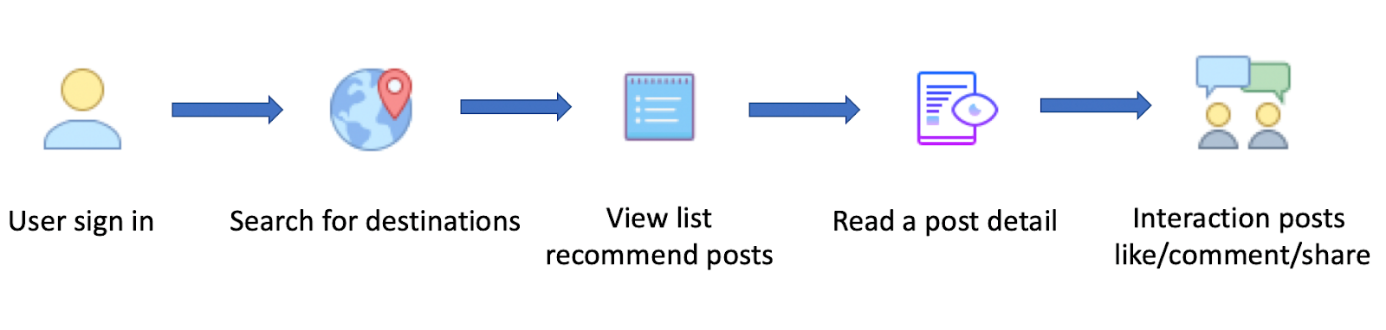
**

Figure -1: User reads and interacts with a post

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Figure 1-2: Users use Finding Companions function

* + - 1. **Out of Scope Functions**
* Manage group of people who use Finding Companions function.
* Manage travel places obtained from Google Map.
  + - 1. **Special Approaches**
* Using Microservices architecture for application’s deployment.
* Using Docker to compose the project into containers to deploy on Google Cloud.
* Using Google Cloud Kubernetes Engine as deployment host for scaling and load balancing.
* Use Git as source code version control, hosted on Github.
* Having a separate background service to handle heavy tasks.
* Using Google Pub Sub for communicating between microservices.
* Using Google Cloud Storage for images.
* For web frontend system:
* Using Angular 7 for web component rendering.
* Using Angular Material to create all web form components.

**Chapter 2: Project plan**

* 1. **Purpose**

This chapter provides an overview of the project plan includes project organization and project management plan

* 1. **Project Organization**
     1. **Software Development Process**

Figure 2-1: Iterative and Incremental Software Development Process[[4]](#footnote-4)

TripSharing project uses the Iterative and Incremental Software Process Model as show in the figure above, which describes the overall lifecycle process.

The Iterative and Incremental Software Process Model is mostly used when the scope of the project is big, the major requirements are defined clearly, some more details will be added later. By using this process model, we break down the developing system tasks into series of smaller tasks which will complete separately, evaluated, and subsequently re-worked until the system perform adequately. In addition, the iterative model is easier than other models when the issues are discovered. The feedbacks are immediately given, and solutions are proposed right on the spot.

* + 1. **Role and Responsibilities**

|  |  |
| --- | --- |
| **Role** | **Responsibilities** |
| Project Manager | Planning, developing schedules, coordinating communication,  generally responsible for keeping the team’s focus on the main  goal |
| Business Analysis Leader | Responsible for managing Business Analyst team and working with them in Analyzing an organization or business domain. |
| Business Analyst | Analyzes an organization or business domain and documents its business or processes or systems. |
| Design Leader | Responsible for managing Design team and working with them to create a best user interface design for our product. |
| Designer | Involve to design product’s user interface. |
| Technical Leader | Responsible for choosing and deciding what technologies should  be used, as well as for overseeing the work being done by other  developers. |
| Developer | Involve to code the product and review code of other developers. |
| Test Leader | Responsible for choosing and deciding what testing tools and techniques should be used, as well as keep the progress of test team on track. |
| Tester | Involve testing the product. |

Table -1: Role and Responsibilities

* + 1. **Organization Structure**

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Figure 2-2: Organization Structure

* + 1. **Project Team Member**

|  |  |
| --- | --- |
| **Team Member** | **Role** |
| Ha Van Thai | Project manager, business analyst, developer |
| Nguyen Van Phong | Technical leader, designer |
| Tran Van Phong | Design leader, developer, tester |
| Le Xuan Truong | Business analysis leader, developer, tester |
| Ly Phuc Linh | Test leader, developer |

Table 2-2: Project Team Member

* + 1. **Tools and Techniques**

|  |  |
| --- | --- |
| **Programing Languages:** | C#, JavaScript |
| **Frameworks:** | Angular 7, Angular material |
| **Software Architecture:** | Microservices |
| **Version control:** | Git |
| **IDEs / Editors:** | Visual studio, Visual studio code |
| **UML Tools:** | Astah UML |
| **Web Server:** | Nginx |
| **DBMS:** | MongoDB |
| **Deployment Server:** | Google cloud |
| **Project Management Tools:** | Microsoft Project 2013 |
| **Process Model:** | Iterative and Incremental Software Process Model |
| **Development Process:** | Behavior-driven development, Test-driven development, Continuous integration, Continuous delivery |

Table 2-3: Tools and Techniques

* 1. **Project Management Plan**
     1. **Tasks**
     2. **Meeting Minutes**

All meeting minutes will be written following this template:

|  |  |  |  |
| --- | --- | --- | --- |
| **Meeting/Project Name:** | TripSharing | | |
| **Date of Meeting:** | 06/06/2019 | **Time: (Type)** | 3 hours  (face-to-face) |
| **Meeting Called by:** | ThaiHV | **Location:** | HB206L |
| **Note Taker:** | PhongTV | **Time Keeper:** | PhongNV |
| **1. Meeting Objective** | | | |
|  | | | |
| **2. Attendance** | | | |
| **Name** | **Role** | **Email** | **Phone** |
| ThaiHV | Project Manager  Developer  Business Analyst | thaihvse048010@fpt.edu.vn | 0349940158 |
| PhongNV | Technical Leader  Designer | phongnvse05051@fpt.edu.vn | 0978296187 |
| PhongTV | Design Leader  Developer  Tester | phongtvse05048@fpt.edu.vn | 0987489397 |
| TruongLX | Business Analysis Leader  Developer  Tester | truonglxse04616@fpt.edu.vn | 0964038801 |
| LinhLP | Test Leader  Developer | linhlpse04693@fpt.edu.vn | 0362442818 |
| **3. Content** | | | |
|  | | | |
| **4. Note** | | | |
|  | | | |

Table 2-4: Meeting Minutes

* + 1. **Code Conventions**

We strictly follow Google JavaScript Style Guide and Microsoft C# Programing Guide as the coding convention for the project. Specific convention rules can be found on these pages.

JavaScript: <https://google.github.io/styleguide/jsguide.html>

C#: <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/inside-a-program/coding-conventions>



Figure 2-3: Google JavaScript Style Guide

* + 1. **Risk Management Plan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Name | Prevention | Correction | Status |
| R1 | Miscommunication | Any problem raised has to be documented or filed. Team members should express their opinion clearly. | Miscommunication must be resolved early. | Closed |
| R2 | New technology | Choosing technology carefully and based on team member’s qualification. All member must develop self-learning skill. | The technology choice should be consider carefully, well explained and training for member if necessary. | Closed |
| R3 | Member idea conflict | Member is free to express their idea and discuss with others to find the most suitable solution. | Analyze any idea carefully and base on reality and possibility, solve conflict as soon as possible. | Closed |
| R4 | Business problem | Understand business of project, consider if its fit applicability, reality and technology possibility. Ask supervisor if needed. | Project business must be tight and realistic. | Closed |
| R5 | Illness or absence  of team members | Member must notice to the  team about absence period  and the plan of how to  keep up with the work  process. | Ensure that the absence  of a member won’t  affect others and  always have plans to  deal with this problem. | Closed |
| R6 | Resources were lost or deleted | Team must have several online and offline back up copy of project. | At least 3 back up way such as Github, Google Drive, etc. and offline copy on each member computer. | Closed |
| R7 | Illness or absence  of team members | Member must notice to the  team about absence period  and the plan of how to  keep up with the work  process. | Ensure that the absence  of a member won’t  affect others and  always have plans to  deal with this problem. | Closed |
| R8 | Changes of software architecture | Read and understand the software architecture thoroughly before starting to apply it to the project | Changes of software architecture must be done early. | Closed |

Table 2-5: Risk Management Plan

* + 1. **Communication Plan**

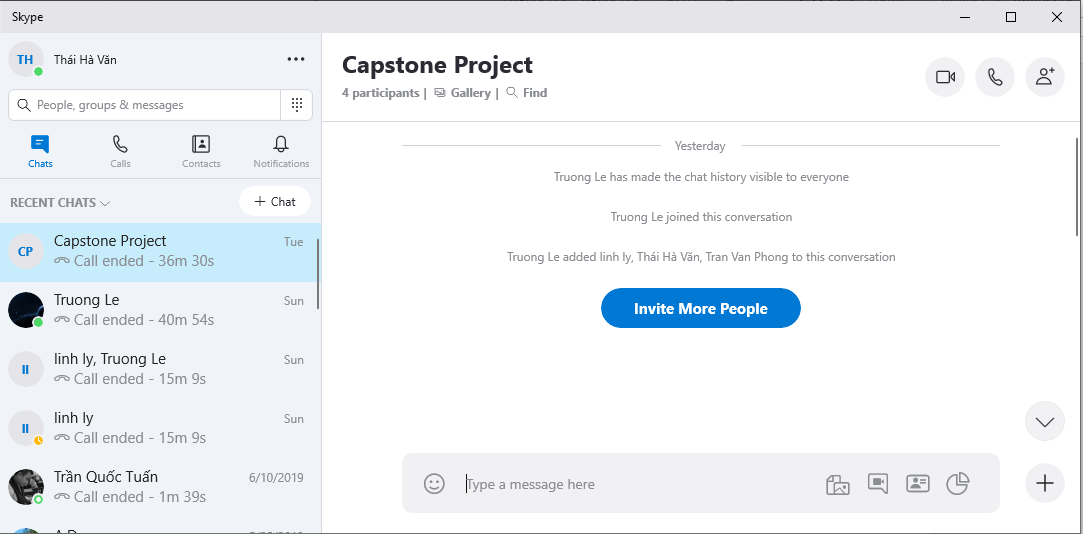
**Weekly meeting schedule:** We follow the Iterative and Incremental Process Model, and we separate the project into two main team, back-end API team and front-end web app team. Each team will do the tasks the task assigned to team members by the Team Leader and depending on difficulty the Technical Leader will assign deadlines for each task. We have a meeting every Thursday to update all team members about what has been done during last week.

**Daily meeting schedule:** Each sub team has one development team with different schedule and deadlines. Before the daily meetings, each member will be telling:

* What he has completed.
* What he is working on.
* When he will finish.
* What issues he is encountering, or if he needs assistance.
* What he will be doing after finishing the task.

**Unscheduled meeting:** Assuming someone has encountered a serious problem that he wants to solve immediately, we will have a meeting via some online channel: Skype, or Phone. Face to face meeting in any emergency cases.

**Communication channel:** Our main communication channel is Skype and Facebook group. We use TeamViewer for assisting team member when he meets technical issues.



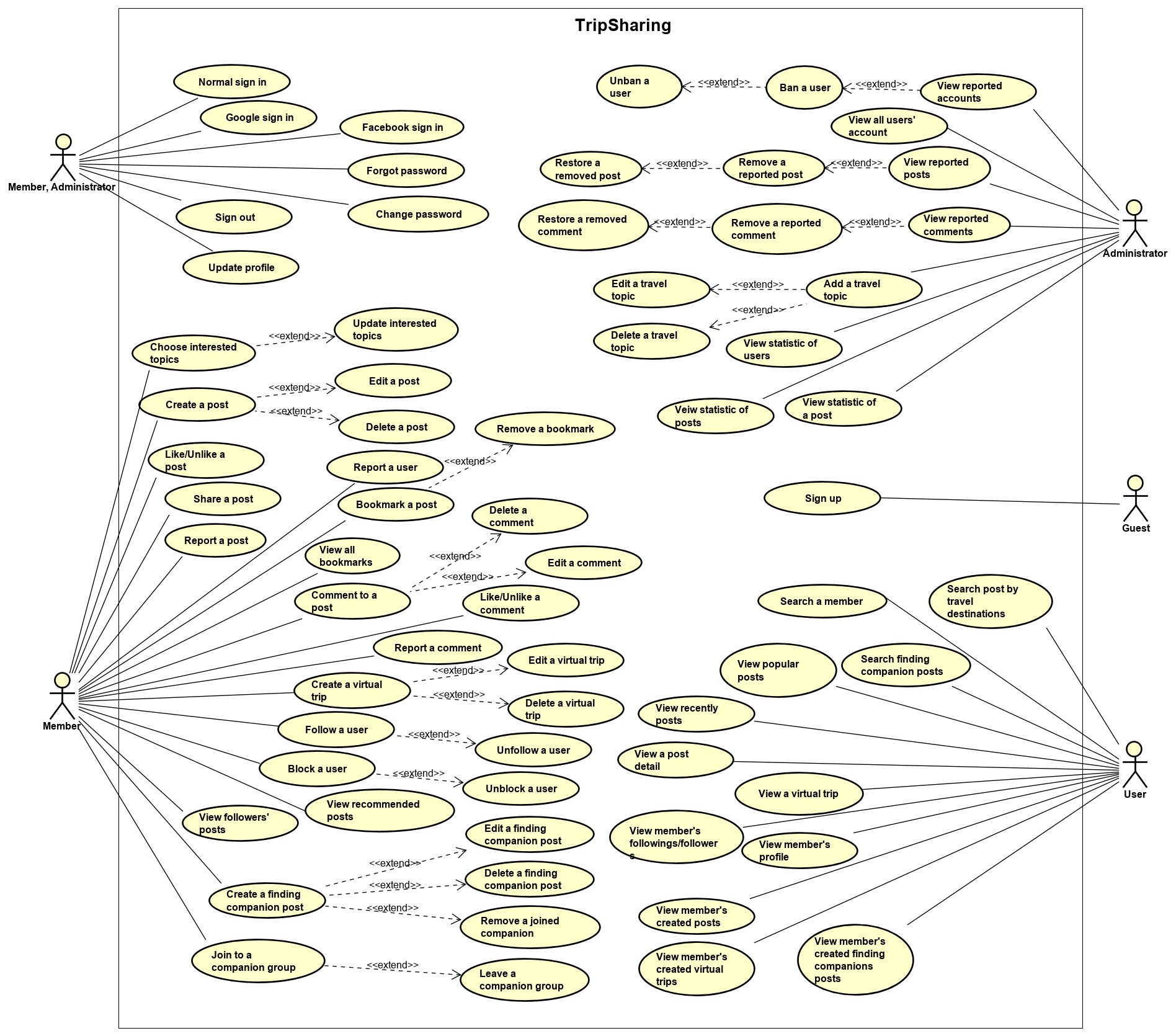
**Chapter 3: Software Requirement Specification**

**3.1 Purpose**

This chapter contains details about functional and non-functional requirements the website. Constraints and detailed requirements are specifically described for developers to follow when completing the tasks.

**3.2 Functional Requirements**

**3.2.1 Use Case Diagram**

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**3.2.2 Business Rules**

|  |  |
| --- | --- |
| **No** | **Description** |
| **B1** | The email must not be empty and valid. |
| **B2** | The confirm password must be matched with the new password. |
| **B3** | Username must not be empty and not be longer than 100 characters |
| **B4** | Image file's mime type must be: "image/png" or "image/jpeg". |
| **B5** | Maximum file size allowed is 10Mb |
| **B6** | Eve |
| **B7** | The root Administrator has the highest privilege. |
| **B8** | An Administrator can: ban/unban users, remove/restore posts, remove/restore comments. |
| **B9** | A banned user can’t post articles, comment to a post or chat with other users. |
| **B10** | When user sign out, his/her current access token is blacklisted. |
| **B11** | An article title must not be empty and not be longer than 1000 characters. |
| **B12** | An article content must not be empty and not be longer than 100,000 characters. |
| **B13** | An article must be tagged to at least one travel place. |
| **B14** | An article must be tagged to at least one travel topic. |
| **B15** | If an he/she has been blocked by another user, then the blocked user can’t she any post, comment or other activities of him/her. |
| **B16** | A comment must not be empty and not be longer than 10,000 characters. |
| **B17** | Each destination in virtual trip has a note and not be longer than 500 characters. |
| **B18** | A chat message must not be empty and not be longer than 10,000 characters. |
| **B19** | Member can report any other member, post or comment |
| **B20** | When a finding companion post is expired, users can’t join to that companion group. |
| **B21** | Contribution points formula:   * Post an article/virtual trip/finding companion post: +1 point * Each ten likes on a post: +1 point (max 5) * Each ten comment on a post: +1 point (max 5) * Report a user/an article/a comment correctly: +5 points * Users were reported: -5 points * Users report correctly: +5 point |

**3.2.3 Use Cases**

|  |  |
| --- | --- |
| **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 | Those who has the highest the permission level and has responsible for managing the entire website. |
| User | Any normal user of following types: Guest, Member, and Administrator |

|  |  |  |
| --- | --- | --- |
| ID | Actor | Name |
| UC-001 | Guest | Sign up |
| UC-002 | Member, Administrator | Google sign in |
| UC-003 | Member, Administrator | Facebook sign in |
| UC-004 | Member, Administrator | Normal sign in |
| UC-005 | Member, Administrator | Forgot password |
| UC-006 | Member, Administrator | Sign out |
| UC-007 | Member, Administrator | Change password |
| UC-008 | Member, Administrator | Update profile |
| UC-009 | Member | Choose interested topic |
| UC-010 | Member | Update interested topic |
| UC-011 | Member | Create a post |
| UC-012 | Member | Edit a post |
| UC-013 | Member | Delete a post |
| UC-014 | Member | Like/Unlike a post |
| UC-015 | Member | Share a post |
| UC-016 | Member | Report a post |
| UC-017 | Member | Bookmark a post |
| UC-018 | Member | View all bookmarks |
| UC-019 | Member | Remove a bookmark |
| UC-020 | Member | Comment to a post |
| UC-021 | Member | Edit a comment |
| UC-022 | Member | Delete a comment |
| UC-023 | Member | Like/Unlike a comment |
| UC-024 | Member | Report a comment |
| UC-025 | Member | Create a virtual trip |
| UC-026 | Member | Edit a virtual trip |
| UC-027 | Member | Delete a virtual trip |
| UC-028 | Member | Follow an user |
| UC-029 | Member | Unfollow an user |
| UC-030 | Member | Block an user |
| UC-031 | Member | Unblock an user |
| UC-032 | Member | Report an user |
| UC-033 | Member | Create a finding companions post |
| UC-034 | Member | Edit a finding companions post |
| UC-035 | Member | Delete a finding companions post |
| UC-036 | Member | Join to a companion group |
| UC-037 | Member | Leave a companion group |
| UC-038 | Member | Remove a joined companion |
| UC-039 | Member | Send/receive messages |
| UC-040 | Member | View followers' posts |
| UC-041 | Member | View recommended posts |
| UC-042 | Administrator | View all users' account |
| UC-043 | Administrator | View reported accounts |
| UC-044 | Administrator | Ban an user |
| UC-045 | Administrator | Unban an user |
| UC-046 | Administrator | View reported posts |
| UC-047 | Administrator | Remove a reported post |
| UC-048 | Administrator | Restore a removed post |
| UC-049 | Administrator | View reported comments |
| UC-050 | Administrator | Remove a reported comment |
| UC-051 | Administrator | Restore a removed comment |
| UC-052 | Administrator | Add a travel topic |
| UC-053 | Administrator | Edit a travel topic |
| UC-054 | Administrator | Delete a travel topic |
| UC-055 | Administrator | View statistic of users |
| UC-056 | Administrator | View statistic of posts |
| UC-057 | User | Search post by travel destinations |
| UC-058 | User | Search a member |
| UC-059 | User | Search finding companion posts |
| UC-060 | User | View popular posts |
| UC-061 | User | View recently posts |
| UC-062 | User | View a post detail |
| UC-063 | User | View a virtual trip |
| UC-064 | User | View member's profile |
| UC-065 | User | View member's followings/followers |
| UC-066 | User | View member's created posts |
| UC-067 | User | View member's created virtual trips |
| UC-068 | User | View member's created finding companions posts |

**3.2.3.1 Guest**

*3.2.3.1.1 Sign up*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-001 Sign Up** | | |
| Created by: | **PhongTV** | Date created: | **01/06/2019** |
| Primary Actor: | **Guest** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User creates an account to sign in to the website. | | |
| Preconditions: | Guest has not signed in the website | | |
| Post conditions: | New account added to database. | | |
| Normal Flow: | 1. User visits website. 2. System displays Welcome page. 3. User clicks “Đăng nhập” button in navbar at the top right of the web page. 4. System display Login form 5. User clicks “Đăng ký” button on the login form. 6. Browser displays another window that contains sign up form. 7. User enters email, password and re-enter password and must agree with policy. 8. Click “Đăng kí” button, system send verify email, save user information. 9. System directs to home page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | 1. Any field empty 2. Email is not valid 3. Re-enter password not match | | |
| Priority: | High | | |
| Frequency of Use: | Medium | | |
| Business Rules: | B1, B2 | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

**3.2.3.2 Member, Administrator**

*3.2.3.2.1 Google sign in*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-002 Google sign in** | | |
| Created by: | **PhongTV** | Date created: | **05/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: | **Administrator** |
| Trigger: | N/A | | |
| Description: | Use a Google account to sign in to the website. | | |
| Preconditions: | **2.1.** User has registered an account  **2.2.** User has not signed in the website | | |
| Post conditions: | **2.1.** User has signed in successfully  **2.2.** User icon is displayed in the top bar. | | |
| Normal Flow: | 1. User visits website. 2. System displays Welcome page. 3. User clicks “Đăng nhập” button in navbar at the top of the web page. 4. System display Login form 5. User clicks “Google” button on the login form. 6. Browser displays another window that contains Google sign in form. 7. User enters his/her Google account and Password 8. Google verifies login and closes the popup. 9. System directs to home page. | | |
| Alternative Flows: | User sign-in with an un-registered account:   1. Continue as first-time sign-in in normal sign-in | | |
| Exceptions: | Wrong email or password | | |
| Priority: | High | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.2.2 Facebook sign in*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-003 Facebook sign in (chưa update)** | | |
| Created by: | **PhongTV** | Date created: | **05/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: | **Administrator** |
| Trigger: | N/A | | |
| Description: | Use a Facewbook account to sign in to the website. | | |
| Preconditions: | **3.1.** User has registered an account  **3.2.** User has not signed in the website | | |
| Post conditions: | **3.1.** User has signed in successfully  **3.2.** User icon is displayed in the top bar. | | |
| Normal Flow: | **3.0 Facebook sign in**   1. User visits website. 2. System displays Welcome page. 3. User clicks “Đăng nhập” button in navbar at the top of the web page. 4. System display Login form 5. User clicks “Đăng nhập với Facebook” button on the login form. 6. Browser displays another window that contains Facebook sign in form. 7. User enters his/her Email or phone number and password 8. Facebook verifies login and closes the popup. 9. System directs to home page. | | |
| Alternative Flows: |  | | |
| Exceptions: | **3.0-E1 – Cannot communicate with API server**   1. Web page displays error message. | | |
| Priority: | High | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.2.3 Normal sign in*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-004 Normal sign in** | | |
| Created by: | **PhongTV** | Date created: | **01/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: | **Administrator** |
| Trigger: | N/A | | |
| Description: | Use a normal account to sign in to the website. | | |
| Preconditions: | **4.1.** User has registered an account  **4.2.** User has not signed in the website | | |
| Post conditions: | **4.1.** User has signed in successfully  **4.2.** User icon is displayed in the top bar. | | |
| Normal Flow: | 1. User visits website. 2. System displays Welcome page. 3. User clicks “Đăng nhập” button in navbar at the top of the web page. 4. System display login form 5. User enters his/her Email and Password 6. User click “Đăng nhập” button on login form 7. System verifies username, password and close the popup. 8. System directs to home page. | | |
| Alternative Flows: | First time sign-in:  Step 1-6 as the same as above   1. System display a page for user to update their information 2. User must fill all the required field and click button “Tiếp tục” 3. System display a page with some interesting topic, choose topic by click on it 4. System directs to home page. | | |
| Exceptions: | 1. User did not fill all required field on first time sign-in page 2. User choose less than 3 topics on first time sign-in 3. Wrong email/password | | |
| Priority: | High | | |
| Frequency of Use: | Medium | | |
| Business Rules: | B1, B3 | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.2.4 Forgot password*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-005 Forgot Password** | | |
| Created by: | **PhongTV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: | **Administrator** |
| Trigger: | N/A | | |
| Description: | User forgot password to sign in to the website. | | |
| Preconditions: | **5.1.** User has signed up with an account successfully  **5.2.** User forgot password to sign in to the website. | | |
| Post conditions: | User have a new password | | |
| Normal Flow: | 1. User visits website. 2. User clicks “Đăng nhập” button in navbar at the top of the web page. 3. System display Login Form 4. User clicks “Quên mật khẩu” link on login form 5. System display forgot password form 6. User enter email registered account 7. Click “Tạo lại mật khẩu” button on the form 8. Display success message and redirect to home page | | |
| Alternative Flows: | N/A | | |
| Exceptions: | Wrong email | | |
| Priority: | High | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.2.5 Sign out*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-006 Sign out** | | |
| Created by: | **PhongTV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: | **Administrator** |
| Trigger: | N/A | | |
| Description: | User sign out the website | | |
| Preconditions: | **6.1.** User has signed in with an account successfully  **6.2.** User icon is display in the top bar. | | |
| Post conditions: | User has signed out | | |
| Normal Flow: | 1. User visits website. 2. User clicks user icon button in navbar at the top of the web page. 3. System display a list option 4. User clicks option “Đăng xuất” on the navbar 5. User sign out the website | | |
| Alternative Flows: | N/A | | |
| Exceptions: |  | | |
| Priority: | High | | |
| Frequency of Use: | Medium | | |
| Business Rules: | B10 | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.2.6 Change password*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-007 Change password** | | |
| Created by: | **PhongTV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: | **Administrator** |
| Trigger: | N/A | | |
| Description: | User wants to change password. | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | User has a new password | | |
| Normal Flow: | 1. User visits website. 2. User clicks user icon button in navbar at the top of the web page. 3. System display a list option 4. User clicks option “Thay đổi mật khẩu” on the navbar 5. Display change password page. 6. User enter old password after enter new password and reenter password. 7. After complete, user click “Lưu” button 8. System will display message confirm and change new password | | |
| Alternative Flows: | N/A | | |
| Exceptions: | Password not match | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.2.7 Update profile*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-008 Update profile** | | |
| Created by: | **PhongTV** | Date created: | **05/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: | **Administrator** |
| Trigger: | N/A | | |
| Description: | User want to update profile | | |
| Preconditions: | User has signed up an account successfully and provide information on first sign-in | | |
| Post conditions: | User update new information in profile | | |
| Normal Flow: | 1. User visits website. 2. User clicks user icon button in navbar at the top of the web page. 3. System display a list option 4. User clicks option “Trang cá nhân” 5. Display user page with left side menu 6. Click “Chỉnh sửa trang cá nhân” 7. Pop up appear and user change information 8. Click “Cập nhật” to finish update | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **8.0-E1 – Cannot communicate with API server**   1. Web page displays error message. | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

**3.2.3.3 Member**

*3.2.3.3.1 Choose interesting topic*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-009 Choose interesting topic** | | |
| Created by: | **PhongTV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to choose interesting topic | | |
| Preconditions: | **9.1.** User has registered an account | | |
| Post conditions: | **9.1.** User can read topics in home page | | |
| Normal Flow: | 1. User sign-in for the first time 2. System display a page to complete user information 3. User fill all the required field and click “Tiếp tục” button 4. System display a list interesting topic 5. User choose three or more topics 6. User clicks “Tiếp tục” button 7. System redirects to home page. | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.2 Update interested topic*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-010 Update interested topic** | | |
| Created by: | **PhongTV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to update interested topic | | |
| Preconditions: | **10.1.** User has signed in with an account successfully | | |
| Post conditions: | **10.1.** User interested topic updated | | |
| Normal Flow: | 1. User clicks avatar icon button in navbar at the top of the web page. 2. System display a list option 3. User clicks “Trang cá nhân” option. 4. System display profile page 5. User click “Cập nhật trang cá nhân” link on left side menu 6. Display interesting topic popup 7. User choose three or more topics 8. User clicks “Cập nhật” button on the popup. 9. System redirect to user page | | |
| Alternative Flows: | N/A | | |
| Exceptions: |  | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.3 Create a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-011 Create an article** | | |
| Created by: | **PhongTV** | Date created: | **04/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to create an article | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | An article created | | |
| Normal Flow: | 1. User visits website. 2. User clicks “Tạo bài viết” button (icon (+)) on navbar at the top of the web page. 3. System display a page to create article. 4. User can add cover image, title, content, … After completed, user click “Tạo bài viết” button. 5. A pop-up display and ask user to tag a destination by search it and click “Tiếp tục” button. 6. Pop-up switch to choose topic for article, user finish and click “Tạo bài viết” button 7. New article added and system direct to article detail page | | |
| Alternative Flows: | N/A | | |
| Exceptions: | 1. Blank title, content 2. Title, content too long | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | B4, B5, B6, B11, B12, B13, B14 | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.4 Edit a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-012 Edit an article** | | |
| Created by: | **PhongTV** | Date created: | **04/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to edit a post | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | Article is edited nu user | | |
| Normal Flow: | 1. User visits website. 2. User clicks user icon button in navbar at the top of the web page. 3. User clicks “Trang cá nhân” option. 4. Display profile page. 5. User click a post that they want to edit 6. Click a pen icon at right of post, next to “chia sẻ” button. 7. Display more options 8. User click “Chỉnh sửa” option 9. User can edit every thing in that post, after finish, click “thay đổi” button 10. Pop-up show up to choose location, finish and click “tiếp tục” button 11. Select topic for article and click “Lưu thay đổi” button 12. System notify change successful and redirect to detail page | | |
| Alternative Flows: | N/A | | |
| Exceptions: | 1. Blank title, content 2. Title, content too long | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | B11, B12, B13, B14 | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.5 Delete a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-013 Delete an article** | | |
| Created by: | **PhongTV** | Date created: | **05/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User can delete a post | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | User delete an article | | |
| Normal Flow: | 1. User visits website. 2. User clicks user icon button in navbar at the top of the web page. 3. User clicks “Trang cá nhân” option. 4. Display profile page. 5. User click a post that they want to edit. 6. Click a pen icon at right of post, next to “chia sẻ” button. 7. Display more options. 8. User click “Xóa”. 9. System display pop-up to notify that article has been deleted. | | |
| Alternative Flows: | N/A | | |
| Exceptions: |  | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.6 Like/Unlike a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-014 Like/Unlike a post** | | |
| Created by: | **PhongTV** | Date created: | **07/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to like/unlike a post | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | User like/unlike a post | | |
| Normal Flow: | 1. User visits website. 2. User can see a lot of posts in home page. 3. User can find a post to like/unlike 4. User clicks “Thích” button in below the post. 5. Number of like of post is increase/decrease and “Thích” button change color | | |
| Alternative Flows: | N/A | | |
| Exceptions: |  | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.7 Share a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-015 Share a post** | | |
| Created by: | **PhongTV** | Date created: | **05/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to share a post | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | User shared a post | | |
| Normal Flow: | 1. User reading on a detail post page 2. User click “Chia sẻ” button on top right of the post 3. A facebook sharing pop-up appear, user can use some option that facebook provide. 4. After finish, user click “Đăng lên facebook” to share. | | |
| Alternative Flows: | N/A | | |
| Exceptions: |  | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.8 Report a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-016 Report a post (chưa update)** | | |
| Created by: | **PhongTV** | Date created: | **05/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to report a post | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | A post added to repost list for review | | |
| Normal Flow: | 1. User finding that a post may violate community rule 2. Click ellipsis button at right of post 3. Display more options 4. User click “Báo cáo bài đăng này” option 5. System will display reason popup to user choice 6. User can choice one or more reason 7. User click “Gửi” button in below the popup. 8. System shows message success. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **16.0-E1 – Cannot communicate with API server**   1. Web page displays error message. | | |
| Priority: | High | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.9 Bookmark a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-017 Bookmark a post** | | |
| Created by: | **PhongTV** | Date created: | **11/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to bookmark a post | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | A bookmark added to user profile | | |
| Normal Flow: | 1. User visits website. 2. User can see a lot of posts in home page. 3. User can find a post to bookmark. 4. Click bookmark icon in the post cover image. 5. Bookmark icon and change from white border to solid white icon. | | |
| Alternative Flows: | 1. User click on title and go to detail page of post. 2. Click bookmark icon in left of the post. 3. Bookmark icon and change from grey to blue. | | |
| Exceptions: |  | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.10 View all bookmark*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-018 View all bookmarks** | | |
| Created by: | **PhongTV** | Date created: | **11/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to view all bookmarks | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | User view all bookmark in profile | | |
| Normal Flow: | 1. User visits website. 2. User clicks user icon button in navbar at the top of the web page. 3. Display more options 4. User clicks “Bài viết đã lưu” option. 5. All bookmarked post display | | |
| Alternative Flows: | N/A | | |
| Exceptions: |  | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.11 Remove a bookmark*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-019 Remove a bookmark** | | |
| Created by: | **PhongTV** | Date created: | **11/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | User want to remove a bookmark | | |
| Preconditions: | User has signed in with an account successfully | | |
| Post conditions: | A bookmark removed from user profile | | |
| Normal Flow: | 1. User click avatar icon. 2. Click “bài viết đã lưu” option. 3. All user bookmarked post displayed. 4. Click three dot icon on the left of bookmark. 5. Click “xóa”. | | |
| Alternative Flows: | If bookmarked post display on home page:   1. Click solid white bookmark icon on the top right of post’s image cover. 2. Icon change from solid white to white border.   If user viewing bookmarked post on detail page:   1. Click bookmark icon on the left of the post. 2. Bookmark icon change color from blue to grey. | | |
| Exceptions: |  | | |
| Priority: | Medium | | |
| Frequency of Use: | Medium | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.3.12 Comment to a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-020 Comment to a post** | | |
| Created by: | **PhongNV** | Date created: | **07/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to comment to a post | | |
| Preconditions: | **20.1.** User is logged in.  **20.2.** User is not banned. | | |
| Post conditions: | Comment added to a post | | |
| Normal Flow: | 1. User visits website. 2. User chooses specific a post to read. 3. View detail post page is displayed. 4. User scrolls to the end of the page then select comment text field. 5. User write a comment. 6. User presses click button “comment” below input box to post comment. | | |
| Alternative Flow: | N/A | | |
| Exceptions: |  | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | B16 | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.13 Edit a comment*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-021 Edit a comment** | | |
| Created by: | **PhongNV** | Date created: | **11/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to update their comment. | | |
| Preconditions: | **21.1.** User is logged in.  **21.2.** User is not banned.  **21.3.** User’s comment is not deleted. | | |
| Post conditions: | Comment is edited | | |
| Normal Flow: | 1. User visits website. 2. User chooses specific a post to read. 3. View detail post page is displayed. 4. User scrolls to the end of the page to read comments. 5. User clicks on icon “…” in the right hand of the comment. 6. A popup is displayed 7. User clicks on “chỉnh sửa” option in popup. 8. User updates comment. 9. User presses key enter to finish. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | Comment is too long | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | B16 | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.14 Delete a comment*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-022 Delete a comment** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to delete their comments | | |
| Preconditions: | **22.1.** User is logged in.  **22.2.** User is not banned. | | |
| Post conditions: | Comment is deleted | | |
| Normal Flow: | 1. User visits website. 2. User chooses specific a post to read. 3. View detail post page is displayed. 4. User scrolls to the end of the page to read comments. 5. User clicks on icon “…” in the right of the comment. 6. A popup is displayed 7. User clicks on “xóa” option in popup. | | |
| Alternative Flow: | N/A | | |
| Exceptions: |  | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.15 Like/Unlike a comment*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-023 Like/Unlike a comment** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to like/unlike a comments | | |
| Preconditions: | **23.1.** User is logged in.  **23.2.** User is not banned. | | |
| Post conditions: | A “like” added/removed | | |
| Normal Flow: | 1. User visits website. 2. User chooses specific a post to read. 3. View detail post page is displayed. 4. User scrolls to the end of the page to read comments. 5. User click “thích” below each comment to like or unlike | | |
| Alternative Flow: | N/A | | |
| Exceptions: |  | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.15 Report a comment*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-024 Report a comment** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to report a comments | | |
| Preconditions: | **24.1.** User is logged in.  **24.2.** User is not banned. | | |
| Post conditions: | **1.** View detail post page is displayed. | | |
| Normal Flow: | **24.0 Report a comment.**   1. User visits website. 2. User chooses specific a post to read. 3. View detail post page is displayed. 4. User scrolls to the end of the page to read comments. 5. User clicks on icon “…” in the right of comment. 6. A popup is displayed. 7. User clicks on “Báo cáo” option in popup. 8. Popup Report comment is displayed.   10. User selects reason to report or write other reason.  11. User clicks to button “Gửi” to send report. | | |
| Alternative Flow: | N/A | | |
| Exceptions: |  | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.16 Comment to a post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-025 Create virtual trip** | | |
| Created by: | **PhongNV** | Date created: | **12/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to create his/her own trip | | |
| Preconditions: | **25.1.** User is logged in.  **25.2.** User is not banned. | | |
| Post conditions: | Virtual trip created and added to user profile | | |
| Normal Flow: | 1. User visits website. 2. User click the “+” icon on the navigation bar. 3. Choose “Tạo một chuyến đi” option. 4. Dialog create a virtual trip displayed, user write trip’s title and a description. 5. Click “Tạo” button below. 6. A virtual trip detail page displayed. 7. Upload cover image by click a picture with “+” icon. 8. User can set a trip to public or private by click the lock icon under cover image. 9. Use search bar to search and add a new destination for the trip. 10. Destination displayed on the left, click “Thêm ghi chú” button to add note for each destination. 11. Click “Tạo” button to finish, a pop-up appears to notify that virtual trip created. | | |
| Alternative Flow: |  | | |
| Exceptions: | **25.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.17 Edit a virtual trip*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-026 Edit a virtual trip** | | |
| Created by: | **PhongNV** | Date created: | **12/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to update their created virtual trip. | | |
| Preconditions: | **26.1.** User is logged in.  **26.2.** User is not banned. | | |
| Post conditions: | A virtual trip is edited | | |
| Normal Flow: | 1. User click avatar icon, choose “Trang cá nhân” option. 2. Profile page displayed; user click “Chuyến đi” below their display name. 3. Click on a trip user want to edit 4. User can edit cover image, privacy, destination and note for destination. | | |
| Alternative Flow: | N/A | | |
| Exceptions: |  | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.18 Delete a virtual trip*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-027 Delete a virtual trip (doing)** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to delete their created virtual trip. | | |
| Preconditions: | **27.1.** User is logged in.  **27.2.** User is not banned. | | |
| Post conditions: | **1.** View created virtual trips page is displayed. | | |
| Normal Flow: | **27.0 Delete a virtual trip.**  1. User visits website.   1. User clicks the “Chuyến đi” icon on the navigation bar. 2. View user’s created virtual trips page display; the list created virtual trip displayed by list boxes 3. User clicks on icon “…” on the top right hand of the specific created virtual trip box. 4. Popup optional displayed. 5. User chooses option “delete” to delete the virtual trip. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **27.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.19 Follow a user*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-028 Follow a user** | | |
| Created by: | **PhongNV** | Date created: | **13/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to follow a member | | |
| Preconditions: | **28.1.** User is logged in.  **28.2.** User is not banned. | | |
| Post conditions: | Added a user to follow list | | |
| Normal Flow: | 1. User visits website. 2. Some post displayed 3. User click “Theo dõi” button next to author name to follow that user | | |
| Alternative Flow: | 1. User visits another user profile page. 2. User click “Theo dõi” button on the right of cover image | | |
| Exceptions: |  | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: |  | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.20 Unfollow a user*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-028 Unfollow a user** | | |
| Created by: | **PhongNV** | Date created: | **13/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to follow the posts of a member | | |
| Preconditions: | **28.1.** User is logged in.  **28.2.** User is not banned. | | |
| Post conditions: | A user is removed from follow list | | |
| Normal Flow: | 1. User go to profile page. 2. Click “Đang theo dõi” link on the left side menu. 3. User click “Đã theo dõi” button. 4. The text change from “Đã theo dõi” to “Theo dõi”. | | |
| Alternative Flow: | 1. User visit profile page of a following user. 2. Click “Đã theo dõi” button on the left of cover image. 3. The text change from “Đã theo dõi” to “Theo dõi”. | | |
| Exceptions: |  | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.21 Block a user*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-030 Block a user** | | |
| Created by: | **PhongNV** | Date created: | **20/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to block other user | | |
| Preconditions: | **30.1.** User is logged in.  **30.2.** User is not banned. | | |
| Post conditions: | A user added to block list | | |
| Normal Flow: | 1. User visits another user profile page. 2. Click button “…” on the bottom right of cover image. 3. Click “Chặn người dùng” option. 4. System display a pop-up to notify block user success, user click “Tiếp tục” 5. Redirect to block list page | | |
| Alternative Flow: |  | | |
| Exceptions: |  | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.22 Unblock a user*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-031 Unblock a user** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to unblock a user | | |
| Preconditions: | **31.1.** User is logged in.  **31.2.** User is not banned.  **31.3.** The member has blocked by the user. | | |
| Post conditions: | Remove a user from blocked list | | |
| Normal Flow: | 1. User click avatar on navigation bar. 2. Choose “Danh sách chặn” option. 3. Click “…” icon on the right next to user want to unblock. 4. Click “Bỏ chặn” option, system show dialog to notify that unblock successful. | | |
| Alternative Flow: | N/A | | |
| Exceptions: |  | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.23 Report a user*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-032 Report a user** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to unblock a user | | |
| Preconditions: | **32.1.** User is logged in.  **31.2.** User is not banned.  **32.2.** The user isn’t blocked. | | |
| Post conditions: |  | | |
| Normal Flow: | 1. **Report a user.** 2. User visits website. 3. User selects input search box in navbar. 4. User inputs member’s name wants to report. 5. Press key enter or click button “search” to search member. 6. The search result page is displayed. 7. User selects tap “peoples” on navbar tap. 8. User clicks on avatar or member’s name. 9. Redirect to member’s personal page. 10. User clicks on icon “…” on top-right below the cover image.   10. The Dialog report is displayed.  11. User selects reasons and inputs message to report.  12. User click button “report” to send report. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **32.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.24. Create a finding companions post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-033 Create a finding companions post** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to create a finding companions post | | |
| Preconditions: | **33.1.** User is logged in.  **33.2.** User is not banned. | | |
| Post conditions: | **1.** Create a finding companions post page is displayed. | | |
| Normal Flow: | **33.0 Create a finding companions post.**   1. User visits website. 2. User clicks icon “+” on navbar menu. 3. A popup optinal is displayed. 4. User selects option “Tìm bạn đồng hành”. 5. Redirect to create a finding companions post page. 6. User input title for post. 7. User fills the form. 8. User clicks on icon “+” to set schedule for the trip. 9. Popup schedule is displayed.   10. User fills the schedule form and submit.  11. User clicks on button “Đăng bài viết”.  12. Popup step 1 chooes the location is displayed.  13. User input the location for the post.  14. Popup step 2 choose the intersting topics is displayed.  15. User selects on interesting topics for the post. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **33.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.25 Edit a finding companions post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-34 Edit a finding companions post** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to update a finding companions post. | | |
| Preconditions: | **34.1.** User is logged in.  **34.2.** User is not banned. | | |
| Post conditions: | **1.** Finding companion posts page is displayed. | | |
| Normal Flow: | **34.0 Edit a finding companions post.**   1. User visits website. 2. User clicks on icon avatar on navbar menu. 3. User clicks on tab “Tìm bạn đồng hành” in tab menu. 4. Redirect to finding companions posts list page by list boxes. 5. User clicks on icon “…” on the top-right of the specific post box. 6. Popup optional is displayed. 7. User selects “edit” option. 8. User updates the companion post and saved. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **34.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.26 Delete a finding companions post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-35 Delete a finding companions post** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to delete a finding companion post. | | |
| Preconditions: | **35.1.** User is logged in.  **35.2.** User is not banned. | | |
| Post conditions: | **1.** Finding companion posts page is displayed. | | |
| Normal Flow: | **35.0 Delete a finding companions post.**   1. User visits website. 2. User clicks on icon avatar on navbar menu. 3. User clicks on tab “Tìm bạn đồng hành” in tab menu. 4. Redirect to created finding companion posts list page. 5. User clicks on icon “…” on the top-right of the specific post box. 6. Popup optional is displayed. 7. User selects “delete” option. 8. Popup confirm is displayed 9. User clicks “Xoá” button to delete the finding companion post. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **35.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.27 Join to a companion group.*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-36 Join to a companion group** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to join to a companion group. | | |
| Preconditions: | **36.1.** User is logged in.  **36.2.** User is not banned.  **36.3.** User is not blocked. | | |
| Post conditions: | **1.** The Detail finding companion posts page is displayed. | | |
| Normal Flow: | 1. **Join to a companion group** 2. User visits website. 3. User clicks on the icon “Tìm bạn đồng hành” in navbar menu. 4. List finding companion posts recently is displayed. 5. User chooses a post to read detail post. 6. Redirect to detail the finding companion post. 7. User clicks on the icon “Tham gia” on the top-right nexto title’s post. 8. Popup confirm is displayed. 9. User clicks “ok” button to send request. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **36.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.28 Leave a compation group.*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-37 Leave a companion group** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to leave a companion group. | | |
| Preconditions: | **37.1.** User is logged in.  **37.2.** User is not banned.  **37.3.** User is joined the group. | | |
| Post conditions: | **1.** The Group chat companion page is displayed. | | |
| Normal Flow: | **37.0 Leave to a companion group**   1. User visits website. 2. User clicks on the icon “Tìm bạn đồng hành” in navbar menu. 3. Finding companions posts page is displayed. 4. User clicks on tab “Nhóm hoạt động” in tab menu. 5. Groups Active is displayed. 6. On block Joined groups, user selects the group want to leave. 7. Group chat companion page is displayed. 8. User click on the item “rời nhóm” to leave the group. 9. A popup confirm is displayed, user confirm to leave the group. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **37.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.29 Remove a joined companion*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-38 Remove a joined companion** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to remove a joined companion in group. | | |
| Preconditions: | **38.1.** User is logged in.  **38.2.** User is not banned.  **38.3.** User is joined the group. | | |
| Post conditions: | **1.** The Group chat companion page is displayed. | | |
| Normal Flow: | **38.0 Leave to a companion group**   1. User visits website. 2. User clicks on the icon “Tìm bạn đồng hành” in navbar menu. 3. Finding companions posts page is displayed. 4. User clicks on tab “Nhóm hoạt động” in tab menu. 5. Groups Active is displayed. 6. On block created group, user chooses group want to manage. 7. Group chat companion page is displayed. 8. User click on the item “x” to remove a joined companions on list companions on left. 9. A popup confirm is displayed, user confirm to remove the companion. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **38.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | Low | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.30 Send/recieve a message.*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-39 Send/recieve a message** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to send and reciecve a message. | | |
| Preconditions: | **39.1.** User is logged in.  **39.2.** User is not banned.  **39.3.** User is not blocked. | | |
| Post conditions: |  | | |
| Normal Flow: | **39.0 Send a message**   1. User visits website. 2. User clicks on the member’s avatar. 3. User clicks on the item “Tin nhắn” in left box member detail. 4. User inputs message in message box. 5. User presses enter key or clicks on “gửi” button to send message.   **39.1 Recieve a message**   1. User visits website. 2. User clicks on the icon “tin nhắn”. 3. User selects the notify message. 4. User reads and reply message. | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **39.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.31 View followers’ posts*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-40 View followers’ posts** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to view followers’ posts. | | |
| Preconditions: | **40.1.** User is logged in.  **40.2.** User is not banned.  **40.3.** User is not blocked. | | |
| Post conditions: |  | | |
| Normal Flow: | **40.0 Send a message**   1. User visits website. 2. User clicks on the “Followers’ posts” tab in navbar tab. 3. Followers’ posts is displayed | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **40.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | High | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

*3.2.3.3.32 View recommended posts*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-41 View recommended posts** | | |
| Created by: | **PhongNV** | Date created: | **02/06/2019** |
| Primary Actor: | **Member** | Secondary Actors: |  |
| Trigger: | N/A | | |
| Description: | User wants to view recommended posts. | | |
| Preconditions: | **41.1.** User is logged in.  **41.2.** User is not banned. | | |
| Post conditions: |  | | |
| Normal Flow: | 1. **View recommended posts** 2. User visits website. 3. User clicks on the “Đề xuất cho bạn” tab in navbar tab. 4. Follower’s posts is displayed | | |
| Alternative Flow: | N/A | | |
| Exceptions: | **40.0-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | High | | |
| Frequency of Use: | Low | | |
| Business Rules: | N/A | | |
| Other Infromations: |  | | |
| Assumptions | N/A | | |

**3.2.3.4 Administrator**

*3.2.3.4.1 View all users' account*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-042 View all users' account** | | |
| Created by: | **LinhLP** | Date created: | **04/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View all users' account | | |
| Preconditions: | **42.1.** Admin has successfully logged in the system | | |
| Post conditions: | **42.1.** Admin has a list of user account | | |
| Normal Flow: | **42.0 View all user’s account**   1. Admin click on “Quản lý account” tab 2. A list of user account is displayed | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **42.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.2 View reported accounts*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-043 View reported accounts** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View reported accounts | | |
| Preconditions: | **43.1.** Admin has successfully logged in the system | | |
| Post conditions: | **43.1.** Reported accounts is displayed to admin | | |
| Normal Flow: | **43.0 View reported accounts**   1. Admin click on “Báo cáo” tab 2. Then admin click on “Quản lý tài khoản bị báo cáo” tab 3. A list of reported account is displayed | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **43.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.3 Ban a user*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-044 Ban a user** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Ban an user | | |
| Preconditions: | **44.1.** Admin has successfully logged in the system | | |
| Post conditions: | **44.1.** Reported account is suspended | | |
| Normal Flow: | **44.0 Ban a user**   1. Admin click on “Báo cáo” tab 2. Admin click on “Quản lý tài khoản bị báo cáo” tab 3. A list of user account is displayed 4. Admin click on option on top right of account 5. A list of options is displayed 6. Admin click “đình chỉ” button 7. Then confirm popup dialog | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **44.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.4 Unban a user*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-045 Unban a user** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Unban an user | | |
| Preconditions: | **45.1.** Admin has successfully logged in the system | | |
| Post conditions: | **45.1.** Suspended account is unbanned | | |
| Normal Flow: | **45.0 Unban a user**   1. Admin click on “Báo cáo” tab 2. Admin click on “Quản lý tài khoản bị báo cáo” tab 3. A list of user account is displayed 4. Admin click on “Đình chỉ” tab 5. Admin click on option button top right of suspended account 6. A list of options is displayed 7. Admin click on button “Khôi phục” | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **45.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.5 View reported posts*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-046 View reported posts** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View reported posts | | |
| Preconditions: | **46.1.** Admin has successfully logged in the system | | |
| Post conditions: | **46.1.** A list of reported post is displayed | | |
| Normal Flow: | **46.0 View reported posts**   1. Admin click on “Báo cáo” tab 2. Admin click on “Quản lý bài đăng bị báo cáo” tab 3. A list of reported post is displayed | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **46.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.6 Remove a reported post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-047 Remove a reported post** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Remove a reported post | | |
| Preconditions: | **47.1.** Admin has successfully logged in the system | | |
| Post conditions: | **47.1.** Reported post is removed | | |
| Normal Flow: | **47.0 Remove a reported post**   1. Admin click on “Báo cáo” tab 2. Admin click on “Quản lý bài đăng bị báo cáo” tab 3. A list of reported post is displayed 4. Admin click on “Xem chi tiết” link 5. Reported post detail is displayed to admin 6. Admin click on “Gỡ bài đăng” 7. Then confirm popup dialog | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **47.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.7 Restore a removed post*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-048 Restore a removed post** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Restore a removed post | | |
| Preconditions: | **48.1.** Admin has successfully logged in the system | | |
| Post conditions: | **48.1.** Removed post is restored | | |
| Normal Flow: | **48.0 Remove a reported post**   1. Admin click on “Báo cáo” tab 2. Admin click on “Quản lý bài đăng bị báo cáo” tab 3. A list of reported post is displayed 4. Admin click on “Đã xoá” tab 5. A list of removed posts is displayed 6. Admin click on “Khôi phục” button | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **48.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.8 View reported comments*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-049 View reported comments** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Restore a removed post | | |
| Preconditions: | **49.1.** Admin has successfully logged in the system | | |
| Post conditions: | **49.1.** A list of reported comments is displayed | | |
| Normal Flow: | **49.0 View reported comments**   1. Admin click on “Báo cáo” tab 2. Admin click on “Quản lý bình luận bị báo cáo” tab 3. A list of reported comments is displayed | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **49.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.9 Remove a reported comment*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-050 Remove a reported comment** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Restore a removed post | | |
| Preconditions: | **50.1.** Admin has successfully logged in the system | | |
| Post conditions: | **50.1.** Reported comment is removed from post | | |
| Normal Flow: | **50.0 Remove a reported comment**   1. Admin click on “Báo cáo” tab 2. Admin click on “Quản lý bình luận bị báo cáo” tab 3. A list of reported comments is displayed 4. Admin click “Xem chi tiết” 5. Reported comment detail is displayed 6. Admin click “Gỡ bình luận” 7. Then confirm popup dialog | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **50.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.10 Restore a removed comment*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-051 Restore a removed comment** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Restore a removed comment | | |
| Preconditions: | **51.1.** Admin has successfully logged in the system | | |
| Post conditions: | **51.1.**Removed comment is restored | | |
| Normal Flow: | **51.0 Restore a removed comment**   1. Admin click on “Báo cáo” tab 2. Admin click on “Quản lý bình luận bị báo cáo” tab 3. Admin click “Đã xoá” tab 4. A list of removed comments is displayed 5. Admin click “Xem chi tiết” 6. Reported comment detail is displayed 7. Admin click “khôi phục” | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **51.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.11 Add a travel topic*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-052 Add a travel topic** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Add a travel topic | | |
| Preconditions: | **52.1.** Admin has successfully logged in the system | | |
| Post conditions: | **52.1.** A travel topic is added to the system | | |
| Normal Flow: | **52.0 Add a travel topic**   1. Admin click “Quản lý topic” 2. A list of topic is displayed 3. Admin click “Tạo mới” button 4. Admin fill the form and click save | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **52.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.12 Edit a travel topic*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-053 Edit a travel topic** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Edit a travel topic | | |
| Preconditions: | **53.1.** Admin has successfully logged in the system | | |
| Post conditions: | **53.1.** Edited travel topic is updated on system | | |
| Normal Flow: | **53.0 Add a travel topic**   1. Admin click “Quản lý topic” 2. A list of topic is displayed 3. Admin click “Chỉnh sửa” button 4. Admin fill the form and click save | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **53.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.4.13 Delete a travel topic*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-054 Edit a travel topic** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Delete a travel topic | | |
| Preconditions: | **54.1.** Admin has successfully logged in the system | | |
| Post conditions: | **54.1.** A topic is remove from system | | |
| Normal Flow: | **54.0 Add a travel topic**   1. Admin click “Quản lý topic” 2. A list of topic is displayed 3. Admin click “Xoá” button 4. Then confirm popup dialog | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **54.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

* + - * 1. *View statistic of users*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-055 View statistic of users** | | |
| Created by: | **ThaiHV** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View statistic of new registered user in days, months, years | | |
| Preconditions: | **55.1.** User has signed in as Administrator | | |
| Post conditions: | **55.1.** Chart of users’ statistic is displayed. | | |
| Normal Flow: | **55. View statistic of users**   1. User visits admin site. 2. A Chart of users’ statistic is displayed | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **55-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

*3.2.3.4.15 View statistic of posts*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-056 View statistic of posts** | | |
| Created by: | **ThaiHV** | Date created: | **05/06/2019** |
| Primary Actor: | **Administrator** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View statistic of new post user in days, months, years | | |
| Preconditions: | **56.1.** User has signed in as Administrator | | |
| Post conditions: | **56.1.** Chart of posts’ statistic is displayed. | | |
| Normal Flow: | **56. View statistic of users**   1. User visits admin site. 2. A Chart of posts’ statistic is displayed | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **56-E1 – Cannot communicate with API server.**   1. An error message is displayed. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: |  | | |
| Assumptions: | N/A | | |

**3.2.3.5 User**

*3.2.3.5.1 Search post by travel destination*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-057 Search post by travel destinations** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Search post by travel destinations | | |
| Preconditions: | N/A | | |
| Post conditions: | **57.1.** Posts related to destination is displayed | | |
| Normal Flow: | **57.0 Search post by travel destination**   1. user type destination in search box below “Bạn muốn đi đâu” label 2. user chose destination from drop down list | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **57.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.5.2 Search a member*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-058** Search a member | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Search a member | | |
| Preconditions: | N/A | | |
| Post conditions: | **58.1.** Member search result is displayed | | |
| Normal Flow: | **58.0** Search a member   1. User type name, keyword into search box top-right of screen and hit enter 2. Result is displayed 3. User click “Mọi người” tab 4. A list of member related to search name is displayed | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **58.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

*3.2.3.5.3 Search finding companion posts*

*Use Case Specification*

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-059 Search finding companion posts** | | |
| Created by: | **LinhLP** | Date created: | **05/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | Search finding companion posts | | |
| Preconditions: | N/A | | |
| Post conditions: | **59.1.** Finding companion posts result is displayed | | |
| Normal Flow: | **59.0 Search finding companion posts**   1. User click “Tìm bạn phượt” tab 2. User fill the form on top of result list and click search 3. Finding companion posts search result is displayed to user | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **59.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.4 View popular postsUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-060 View popular posts** | | |
| Created by: | **TruongLX** | Date created: | **13/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View popular posts. | | |
| Preconditions: | Uservisit the website. | | |
| Post conditions: | Display popular post to user (attract attention). | | |
| Normal Flow: | 1. User visit website. 2. User see some post on “phổ biến” section at home page. 3. Click “Xem thêm >” link on the top right of section. 4. System display popular posts. | | |
| Alternative Flows: | N/A | | |
| Exceptions: |  | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.5 View recently postsUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-061 View recently posts** | | |
| Created by: | **TruongLX** | Date created: | **13/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View recently added posts. | | |
| Preconditions: | Guest visit the website. | | |
| Post conditions: | Display recently post to user. | | |
| Normal Flow: | 1. User visit website. 2. User see some post on “Mới nhất” section at home page. 3. Click “Xem thêm >” link on the top right of section. 4. System display popular posts. | | |
| Alternative Flows: | N/A | | |
| Exceptions: |  | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.6 View a post detailUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-062 View a post detail** | | |
| Created by: | **TruongLX** | Date created: | **11/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View a post detail | | |
| Preconditions: | User click on a post | | |
| Post conditions: | An article detail page is displayed | | |
| Normal Flow: | 1. User visit website. 2. User clicks on a post. 3. A post detail page displayed. | | |
| Alternative Flows: | 1. User visit another user profile page. 2. Many posts displayed. 3. Click on a post. 4. A post detail page displayed. | | |
| Exceptions: |  | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.7 View a virtual tripUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-063 View a virtual trip** | | |
| Created by: | **TruongLX** | Date created: | **05/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View a virtual trip. | | |
| Preconditions: | **63.1.** User is logged in  **63.2.** User click on tab “Chuyến đi” on member’s profile page. | | |
| Post conditions: | Detail of virtual trip displayed. | | |
| Normal Flow: | 1. User visit website. 2. User click on member’s name. 3. System display member’s profile page. 4. User clicks on “Chuyến đi” tab on profile page. 5. List of virtual trips display on profile page. 6. User click on trip name or image. 7. System display detail information about that trip. | | |
| Alternative Flows: | 1. User search something. 2. System display result page. 3. User click “Chuyến đi” tab. 4. Continue as normal if there is any result | | |
| Exceptions: |  | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.8 View member’s profileUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-064** **View member’s profile** | | |
| Created by: | **TruongLX** | Date created: | **01/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View a member’s profile. | | |
| Preconditions: | **64.1** User visit website  **64.2** User is not blocked by the user they want to see | | |
| Post conditions: | A profile page of member displayed. | | |
| Normal Flow: | 1. User visit website. 2. User click on member’s name or avatar. 3. System display member’s profile page. | | |
| Alternative Flows: | 1. User search something. 2. System display result page. 3. User click on “Mọi người” tab. 4. User click on member’s name or avatar. 5. System display member’s profile page. | | |
| Exceptions: |  | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.9 View member’s followings/followersUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-065** **View member’s followings/followers** | | |
| Created by: | **TruongLX** | Date created: | **16/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View a member’s followings/followers. | | |
| Preconditions: | **65.1** User visit website  **65.2** User is not blocked by the user they want to see | | |
| Post conditions: | A list of followings/followers is displayed. | | |
| Normal Flow: | 1. User visit member profile page. 2. User click on “Người theo dõi” or “Đang theo dõi” link on the left side panel. 3. A list of followers/followings displayed. | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.10 View member’s created postsUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-066 View member’s created posts** | | |
| Created by: | **TruongLX** | Date created: | **05/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View a member’s created posts. | | |
| Preconditions: | **66.1.** User visit member’s profile page. | | |
| Post conditions: | **66.1.** A list of created posts is displayed. | | |
| Normal Flow: | **66.0 View member’s created posts**   1. User visit member’s profile page. 2. A list of created posts is displayed at the middle (with title, image, short description). | | |
| Alternative Flows: |  | | |
| Exceptions: | **66.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.11 View member’s created virtual tripsUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-067** **View member’s created virtual trips** | | |
| Created by: | **TruongLX** | Date created: | **05/06/2019** |
| Primary Actor: | **User** | Secondary Actor: |  |
| Trigger: | N/A | | |
| Description: | View a member’s created virtual trips. | | |
| Preconditions: | **67.1.** User visit member’s profile page. | | |
| Post conditions: | **67.1.** A list of created virtual trips is displayed. | | |
| Normal Flow: | **67.0 View member’s created virtual trip**   1. User visit member’s profile page. 2. User click “chuyến đi” tab on profile page. 3. List of created virtual trips display on profile page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **67.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

3.2.3.5.12 View member's created finding companions postsUse Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | **UC-068 View member's created finding companions posts** | | |
| Created by: | **TruongLX** | Date created: | **05/06/2019** |
| Primary Actor: | **Member** | Secondary Actor: | **User** |
| Trigger: | N/A | | |
| Description: | View member's created finding companions posts. | | |
| Preconditions: | **68.1.** User visit member’s profile page. | | |
| Post conditions: | **68.1.** A list of created finding companions posts displayed. | | |
| Normal Flow: | **68.0 View member’s created finding companions posts**   1. User visit member’s profile page. 2. User click “tìm bạn phượt” tab on profile page. 3. List of created finding companion posts display on profile page. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **68.0-E1 – Cannot communicate with API server.**   1. Display an error message. | | |
| Priority: | High | | |
| Frequency of Use: | High | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

**3.3 Non-Functional Requirements**

**3.3.1 Security**

* Token-Based Authentication, relies on a signed token that is sent to the server on each request.
* Because we use Token-Based Authentication, so all request must be made on the correct frontend website otherwise it will be rejected, which made Cross-Site Request Forgery (CSRF) is impossible.
* All query made to MongoDB must be escaped so no NoSQL Injection.
* Apply SSL encryption to restrict user access and prevent man-in-the-middle attacking.
* All passwords are encrypted by PBKDF2 algorithm with salt.
* The security matrix is as following table:

|  |  |  |  |
| --- | --- | --- | --- |
| Function | Guest | Member | Administrator |
| Sign up |  |  |  |
| Google sign in |  |  |  |
| Facebook sign in |  |  |  |
| Normal sign in |  |  |  |
| Forgot password |  |  |  |
| Sign out |  |  |  |
| Change password |  |  |  |
| Update profile |  |  |  |
| Choose interested topic |  |  |  |
| Update interested topic |  |  |  |
| Create a post |  |  |  |
| Edit a post |  |  |  |
| Delete a post |  |  |  |
| Like/Unlike a post |  |  |  |
| Share a post |  |  |  |
| Report a post |  |  |  |
| Bookmark a post |  |  |  |
| View all bookmarks |  |  |  |
| Remove a bookmark |  |  |  |
| Comment to a post |  |  |  |
| Edit a comment |  |  |  |
| Delete a comment |  |  |  |
| Like/Unlike a comment |  |  |  |
| Report a comment |  |  |  |
| Create a virtual trip |  |  |  |
| Edit a virtual trip |  |  |  |
| Delete a virtual trip |  |  |  |
| Follow a user |  |  |  |
| Unfollow a user |  |  |  |
| Block a user |  |  |  |
| Unblock a user |  |  |  |
| Report a user |  |  |  |
| Create a finding companions post |  |  |  |
| Edit a finding companions post |  |  |  |
| Delete a finding companions post |  |  |  |
| Join to a companion group |  |  |  |
| Leave a companion group |  |  |  |
| Remove a joined companion |  |  |  |
| Send/receive messages |  |  |  |
| View followers' posts |  |  |  |
| View recommended posts |  |  |  |
| View all users' account |  |  |  |
| View reported accounts |  |  |  |
| Ban a user |  |  |  |
| Unban a user |  |  |  |
| View reported posts |  |  |  |
| Remove a reported post |  |  |  |
| Restore a removed post |  |  |  |
| View reported comments |  |  |  |
| Remove a reported comment |  |  |  |
| Restore a removed comment |  |  |  |
| Add a travel topic |  |  |  |
| Edit a travel topic |  |  |  |
| Delete a travel topic |  |  |  |
| View statistic of users |  |  |  |
| View statistic of posts |  |  |  |
| Search post by travel destinations |  |  |  |
| Search a member |  |  |  |
| Search finding companion posts |  |  |  |
| View popular posts |  |  |  |
| View recently posts |  |  |  |
| View a post detail |  |  |  |
| View a virtual trip |  |  |  |
| View member's profile |  |  |  |
| View member's followings/followers |  |  |  |
| View member's created posts |  |  |  |
| View member's created virtual trips |  |  |  |
| View member's created finding companions’ posts |  |  |  |

**3.3.2 Maintainability & Extensibility**

* Microservices architecture for backend.
* Unit Tests and Integration Tests are written using Karma and NUnit.
* Using TSLint for a consistent coding convention.
* Maintainable source code and easy deployment since we follow a single coding convention & a highly maintainable architecture design.
* Object Oriented Programming paradigm is applied in order to ensure scalability & maintainability.

**3.3.3 Availability and Scalability**

* Google Cloud service for automatic horizontal scalability.
* Third-party services for convenient development:
* SendGrid for sending emails.
* Google storage for storing images.

**3.3.4 Performance**

* Web front-end is a Single Page Application with the goal of providing a more fluid user experience similar to a desktop application.
* Backend system uses background job for external requests, heavy processing requests such as:
* Sending email

**3.3.5 Usability**

* The interface should be elegant and simple.
* Alt attributes are provided for non-text elements, such as images and maps.
* Links, buttons and checkboxes are easily clickable, for example a user can select a checkbox by clicking the text, not just the checkbox.
* Search box is wide enough, so that users can see what they've typed.
* Search is available on every page, not just the homepage.
* Links are easily recognizable. They look clickable. Items that aren't links don't look clickable, for example underlining text is avoided.
* Important commands are displayed as buttons, not links. For example, "Đăng nhập" or "Đăng" is a button, not a link.

**Chapter 4: Software Design**

**4.1 Purpose**

This chapter gives the developer team a description about system architecture and how they should be implemented. This chapter consist of:

* Architecture overview
* Component diagram
* Detailed design
* Detailed description of components
* Database design

**4.2 Architecture Overview**

**4.2.1 System Architecture**

**4.2.1.1 Diagram**

**4.2.2 System Architecture Explanation**

The entire project will be deployed on Google Cloud. We aim at delivering a secured, responsive, and highly available system. In the following section, we will explain the function and mechanism of each unit in the system architecture design.

**4.2.2.1 Google Cloud Storage**

**Google Cloud Storage** is a web-services interface data storage & retrieval. We use Google Cloud Storage for **storing images.**

**4.2.2.2 Google Cloud Pub/Sub**

**Cloud Pub/Sub** is a fully-managed real-time messaging service that allows you to send and receive messages between independent applications. We use Cloud Pub/Sub to handle communication among microservices.

**4.2.2.3 Google Cloud Platform**

**Google Cloud Platform** is a suite of cloud computing services that runs on the same infrastructure that Google uses internally for its end-user products. Alongside a set of management tools, it provides a series of modular cloud services including computing, data storage, data analytics and machine learning. Apart from **Cloud Storage** and **Pub/Sub** mentioned above, the main part of operation lies in the usage of the **Kubernetes Engine** that supports easy deployment and scaling from Docker images.

**4.2.2.4 Docker**

**Docker** is a tool designed to make it easier to create, deploy, and run applications by using containers. Containers allow a developer to package up an application with all of the parts it needs, such as libraries and other dependencies, and ship it all out as one package. We use Docker to build and push images to **Google Docker Registry** for deployment and testing.

**4.2.2.5 Nginx**

**4.2.2.6 Angular 7**

**4.2.2.7 Angular Material**

**4.2.2.8 MongoDb**

1. <http://vietnamtourism.gov.vn/index.php/items/13460> [↑](#footnote-ref-1)
2. <http://flcholiday.com/tin-tuc/xu-huong-du-lich-2018-kham-pha-va-tan-huong-cuoc-song-117.htm> [↑](#footnote-ref-2)
3. <http://www.younetmedia.com/insights/infographic-xu-huong-du-lich-cua-gioi-tre-qua-phan-tich-tren-social-media.html> [↑](#footnote-ref-3)
4. <https://www.topsinfosolutions.com/methodology/> [↑](#footnote-ref-4)