|  |
| --- |
|  |
| Capstone Project Document |

**WingS**

Report #2 – Data Design

|  |  |  |
| --- | --- | --- |
| **WingS** | | |
| **Group Members** | Đào Trọng Nghĩa | SE03220 |
| Lê Hồng Nhiên | SE03377 |
| Tạ Ngọc Duy | SE03267 |
| Đỗ Văn Tuấn | SE03297 |
| Hoàng Anh Tuấn | SE03108 |
| **Supervisor** | Mr. Nguyễn Văn Sang | |
| **Project code** | WS | |

**- Hanoi, 10/2016 –**

# SIGNATURE PAGE

AUTHOR: Tạ Ngọc Duy 08/10/2016

Team member

REVIEWERS: Đào Trọng Nghĩa --/--/2016

Project manager

APPROVAL: Nguyễn Văn Sang --/--/2016

Supervisor

Record of change

\*A - Added M - Modified D – Deleted

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Effective Date | Changed Item | A,M,D | Change Description | Reason for Change | Rev. Number |
| 08/October/2016 | Create Data Design | A | Create Data Design | First version | 1.0 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Table Contents

[SIGNATURE PAGE 1](#_Toc468828826)

[1 INTRODUCTION 3](#_Toc468828827)

[1.1 Purpose 3](#_Toc468828828)

[1.2 Acronyms and Definitions 3](#_Toc468828829)

[1.3 References 3](#_Toc468828830)

[1.4 Overview 4](#_Toc468828831)

[2 Database 5](#_Toc468828832)

[2.1 Entity Relationship Diagram 5](#_Toc468828833)

[2.1.1 Entity description 6](#_Toc468828834)

[2.1.2 Relationship 6](#_Toc468828835)

[2.2 Table Diagram 8](#_Toc468828836)

[2.2.1 User table 8](#_Toc468828837)

[2.2.2 UserInformation table 9](#_Toc468828838)

[2.2.3 Event table 10](#_Toc468828839)

[2.2.4 Organization table 11](#_Toc468828840)

[2.2.5 EventType table 12](#_Toc468828841)

[2.2.6 ReportEvent table 12](#_Toc468828842)

[2.2.7 EventTimeLine table 12](#_Toc468828843)

[2.2.8 Donate table 13](#_Toc468828844)

[2.2.9 CommentEvent table 13](#_Toc468828845)

[2.2.10 SubcommentEvent table 14](#_Toc468828846)

[2.2.11 LikeEvent table 14](#_Toc468828847)

[2.2.12 LikeCommentEvent table 15](#_Toc468828848)

[2.2.13 EventAlbumImage table 15](#_Toc468828849)

[2.2.14 Thread table 15](#_Toc468828850)

[2.2.15 CommentThread table 16](#_Toc468828851)

[2.2.16 SubCommentThread table 16](#_Toc468828852)

[2.2.17 LikeThread table 17](#_Toc468828853)

[2.2.18 ThreadAlbumImage table 17](#_Toc468828854)

[2.2.19 Connection table 17](#_Toc468828855)

[2.2.20 Conversation table 18](#_Toc468828856)

[2.2.21 Message table 18](#_Toc468828857)

[2.2.22 PublicMessageDetail table 19](#_Toc468828858)

[2.2.23 PublicRoom table 19](#_Toc468828859)

# INTRODUCTION

## Purpose

Fly Away Plus data design document describes structure of database and file structure of system including internal file structure as well as interface file structure.

## Acronyms and Definitions

|  |  |
| --- | --- |
| **Acronym & Abbreviation** | **Definition** |
| WS | WingS |
| FU | FPT University |
| Q&A | Question and Answer |

Table ‑: Acronyms and Definitions

## References

|  |  |
| --- | --- |
| **Document** | **Title** |
| Class Design Document | WS\_Class Design\_v1.0\_EN |
| Architecture Design | WS\_Architecture Design\_v1.0\_EN |
| Software Requirement Specification | WS\_Software Requirement Specification\_v1.0\_EN |

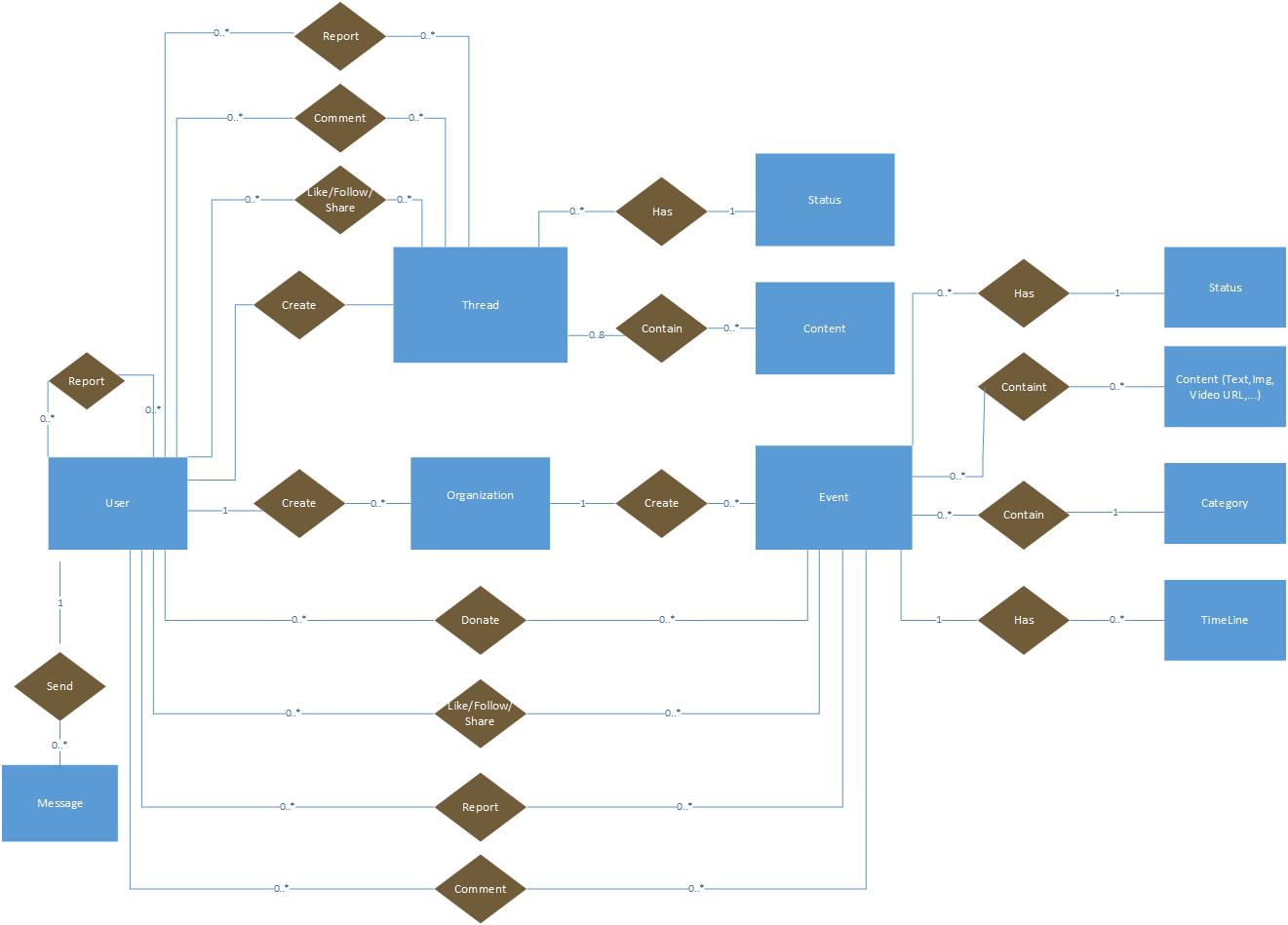
Table ‑: References

## Overview

This document describes relationship between entities and properties of each entity.

# Database

## Entity Relationship Diagram



**Figure 2‑1:** Entity Relationship Diagram

### Entity description

|  |  |  |
| --- | --- | --- |
| **No** | **Entity** | **Description** |
|  | WS\_User | User is all people who using WS feature |
|  | Event | An event which user created, includes content, schedule, photo, video to descripting. |
|  | Time Line | Timeline detail of an event. |
|  | Category | A category which user use to filter event |
|  | Organization | An organization can be created by an user (If user or group qualify). Only group can create event |
|  | Thread | Post of user created. Where all user can discussion. |
|  | Status | A status of Event or Thread. Active or be banned. |
|  | Conversation | A Conversation which user created and joined to send and receive message together |
|  | Message | A Message which user send or receive to talk together |

**Table 2-3:** Entity description

### Relationship

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Relation** | **Properties** | **From** | **To** | **Description** |
|  | CONTAINS | None | Category | Event | A category contains many Event |
|  | HAS | None | Status | Event | A status contains many Event |
|  | HAS | None | Project | TimeLine | A event has one or more timelines, describe the detail of event |
|  | CONTAINS | None | Event | Content | An event contains many content (picture, text, video url…) |
|  | CREATE | None | User | Organization | An user can create organization if they want create event or group other users who have same idea. |
|  | CREATE | None | Organization | Event | An organization can create one or more event |
|  | COMMENT | UserID  EventID | User | Event | A Comment which user give to event |
|  | DONATE | UserID  EventID | User | Event | A event which user donate |
|  | FOLLOW | UserID  EventID | User | Event | A Remind which user bookmark an Event. |
|  | REPORT | UserID  EventID | User | Event | A Report which user report an Event |
|  | CONTAINS | None | Thread | Content | A thread contains many content (picture, text, video url…) |
|  | HAS | None | Status | Thread | A status contains many thread |
|  | CREATE | None | User | Thread | An user can create one or more thread |
|  | COMMENT | UserID  ThreadID | User | Thread | A Comment which user give to thread |
|  | FOLLOW | UserID  ThreadID | User | Thread | A Remind which user bookmark a thread. |
|  | REPORT | UserID  ThreadID | User | Thread | A Report which user report an thread |
|  | REPORT | ReportUseID  ReportedUseID | User |  | A Report which User report another user |
|  | HAS | None | Conversation | Message | A Has which conversation has message(s) |
|  | SEND | None | User | Message | A Send which User create and send message |

Table ‑: Relationship description

## Table Diagram



**Figure 2‑2:** Table Diagram

### User table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | UserID | int | No | User’s ID |
|  | UserName | String | No | User’s name |
|  | UserPassword | String | No | User’s password |
|  | IsActive | bool |  | User’s active status (inactive, active) |
|  | CreatedDate | Datetime |  | User’s created date |
|  | LoginType | String |  | User’s created type includes: normal, Facebook or both |
|  | LastLogin | Datetime |  | User’s last login |
|  | AccountType | Bit |  | User’s type (admin or nomal user) |
|  | IsVerify | bool |  | User’ email verify status |
|  | VerifyCode | String |  | User’s verify code |
|  | Email | String | No | User’s email |

Table ‑: User table

### UserInformation table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | UserID | int | No | Person’s ID |
|  | FullName | String |  | Person’s full name |
|  | ProfileImage | String |  | Person’s profile image |
|  | OrgnazationIDFollow | String |  | Person’s OrgnazationIDFollow |
|  | UserAddress | String |  | Person’s address |
|  | Gender | String |  | Person’s gender |
|  | PhoneNumber | String |  | Person’s phone number |
|  | DateOfBirth | Datetime |  | Person’s date of birth |
|  | Country | String |  | Person’s country |
|  | Phone | String |  | Person’s Phone |
|  | FacebookURL | String |  | Person’s facebook link |
|  | UserSignature | String |  | Person’s UserSignature |
|  | Point | Int | No | Person’s Point |

Table ‑: UserInformation table

### Event table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | EventID | int | No | Event’s ID |
|  | CreatorID | int | No | Event’s creator (userID) |
|  | EventType | int | No | Event’s type |
|  | EventName | String |  | Event’s name |
|  | Created\_Date | Datetime | No | Event’s date created |
|  | Finish\_Date | Datetime |  | Event’s finish date |
|  | Updated\_Date | Datetime | No | Event’s update timeline |
|  | ShortDescription | String | No | Event’s shortDescription |
|  | Description | String | No | Event’s description |
|  | Location | String | No | Event’s location |
|  | VideoUrl | String | No | Event’s video URL |
|  | TotalPoint | int | No | Event’s TotalPoint |
|  | Status | bit |  | Event’s status |
|  | IsOpen | bool |  | Event’s activity status |
|  | Views | int |  | Event’s total views |
|  | Likes | int |  | Event’s total likes |
|  | ExpectedMoney | decimal |  | Event’s expected money |

Table ‑: Event table

### Organization table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | OrganazationID | Int | No | Organization’s ID |
|  | OrganazationName | String |  | Organization’s Name |
|  | Introduction | String |  | Introduce about Organization |
|  | LogoUrl | String |  | Organization’s logo |
|  | Phone | String |  | Organization’s phone |
|  | Email | String |  | Organization’s email for contact |
|  | Address | String |  | Organization’s Address |
|  | Status | String | No | Organization’s Status |
|  | Point | int | No | Organization’s point |
|  | IsActive | bool |  | Organization’s activity status |
|  | IsVerify | bool |  | Organization’s creating request status |
|  | CreatedDate | DateTime |  | Organization’s created date |

Table ‑: Organization table

### EventType table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | EventTypeID | int | No | EventType’s ID |
|  | Name | String |  | EventType’s name |
|  | IsActive | bool |  | EventType’s active status |
|  | [Content] | String |  | EventType’s description |

Table ‑: Category table

### ReportEvent table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | ReportID | int | No | Report ’s ID |
|  | UserID | int | No | Report ’s user id, who report project |
|  | Reason | String |  | Report ’s Reason |
|  | ReportTime | Datetime | No | Report ’s report date |
|  | Type | String | No | Report ’s type |
|  | ReportTo | int |  | Report ’s to whom |
|  | Status | String |  | Report’s status (new, viewed, done) |
|  | UpdatedTime | DateTime |  | Report ’s update time |

Table ‑6 ReportEvent table

### EventTimeLine table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | TimeLineId | int | No | Event’s schedule |
|  | EventId | int | No | EventID |
|  | Content | string | No | Event’s timeline content |
|  | FromDate | DateTime |  | Starting date |
|  | ToDate | DateTime |  | End date |
|  | Status | bool |  | Sub event’s status |

Table ‑7: EventTimeLine table

### Donate table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | DonationId | int | No | Donation’s ID |
|  | UserID | int | No | Donor id |
|  | EventId | int | No | Event’s id |
|  | DonatedDate | Datetime |  | Donated’s date |
|  | IsPublic | bool | No | Is public |
|  | DonatedMoney | decimal |  | Amount money donate |
|  | TradeCode | string |  | Trade code |
|  | Content | string |  | Content of donate |

Table ‑8: Donate table

### CommentEvent table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | CommentEventId | int | No | Comment’s ID |
|  | UserID | int | No | Comment’s user id |
|  | EventID | int | No | Comment’s Event id |
|  | CmtContent | String |  | Comment’s content |
|  | CmtDate | Datetime | No | Comment’s date |

Table ‑9: CommentEvent table

### SubcommentEvent table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | SubCommentEventId | int |  | SubCommentEvent’s ID |
|  | CommentEventId | int |  | CommentEvent’s ID |
|  | UserId | int |  | UserID who comment |
|  | Content | string |  | SubCommentEvent’s content |
|  | CommentDate | Datetime |  | SubCommentEvent’s date |
|  | Status | bool |  | SubCommentEvent’s status |

Table ‑: Subcomment table

### LikeEvent table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
| 1 | LikeId | int |  | Like’s ID |
| 2 | UserId | int |  | Like’s user id |
| 3 | EventId | int |  | Like’s event id |
| 4 | Status | bool |  | Likes’s status |

Table ‑13: LikeEvent table

### LikeCommentEvent table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
| 1 | LikeCommentId | int |  | LikeComment’s ID |
| 2 | CommentId | int |  | LikeComment’s comment id |
| 3 | UserId | int |  | LikeComment’s user id |
| 4 | Status | String |  | LikeComment’s status |

Table ‑13: LikeCommentEvent table

### EventAlbumImage table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | ImageId | int | No | Image’s Id |
|  | EventId | int | No | Event’s ID |
|  | ImageUrl | String |  | Image URL link |
|  | Status | bool |  | Image’s status |

Table ‑11: EventAlbumImage table

### Thread table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | ThreadId | int | No | Thread’s ID |
|  | UserId | Int | No | user id of user who create slide |
|  | Title | String |  | Thread’s title |
|  | [Content] | String |  | Thread’s content |
|  | ShortDescription | String |  | Thread’s short description |
|  | VideoUrl | String |  | Thread’s url link |
|  | CreatedDate | datetime | No | The date which thread has been created |
|  | UpdatedDate | datetime | No | Last update of thread |
|  | Status | bool | No | Thread’s status |

Table ‑11: Thread table

### CommentThread table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | CommentThreadId | int | No | CommentThread’s ID |
|  | UserID | int | No | Comment’s user id |
|  | ThreadID | int | No | Comment’s Thread id |
|  | CmtContent | String |  | Comment’s content |
|  | CmtDate | Datetime | No | Comment’s date |
|  | Status | bool | No | Comment’s status |

Table ‑: Comment thread table

### SubCommentThread table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | CommentThreadId | int | No | CommentThread’s ID |
|  | UserID | int | No | Comment’s user id |
|  | ThreadID | int | No | Comment’s Thread id |
|  | CmtContent | String |  | Comment’s content |
|  | CmtDate | Datetime |  | Comment’s date |
|  | Status | bool |  | Comment’s status |

Table ‑14: SubComment Thread table

### LikeThread table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | LikeId | int | No | Like’s ID |
|  | UserId | int | No | Like’s user id |
|  | ThreadId | int | No | Like’s thread id |
|  | Status | String |  | Like’s status |

Table ‑14: Like Thread table

### ThreadAlbumImage table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | ImageId | int | No | Image’s Id |
|  | ThreadId | int | No | Thread’s ID |
|  | ImageUrl | String |  | Image URL link |
|  | Status | bool |  | Image’s status |

Table ‑11: ThreadAlbumImage table

### Connection table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | ConnectionId | int | No | Connection’s Id |
|  | UserId | int | No | User’s ID |
|  | ConnectionString | String |  | Connection string of each user when connect to WS system |

Table ‑11: Connection table

### Conversation table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | ConversationID | int |  | Conversation’s ID |
|  | CreatorID | int |  | Conversation’s creator id |
|  | ReceiverID | int |  | Conversation’s receiver |
|  | Title | String |  | Conversation’s title |
|  | CreatedDate | Datetime |  | Conversation’s created date |
|  | UpdatedDate | Datetime |  | Conversation’s update date |
|  | isHidden | bool |  | Conversation’s showing status |
|  | isRead | bool |  | Conversation’s reading status |
|  | Status | bool |  | Conversation’s status |

Table ‑11: Conversation table

### Message table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | MessageID | int |  | Message’s ID |
|  | ConversationID | int |  | Message’s conversation id |
|  | UserID | int |  | Message’s user id |
|  | CreatedDate | Datetime |  | Message’s sent time |
|  | Content | String |  | Message’s content |
|  | Status | bool |  | Message’s status |

Table ‑11: Message table

### PublicMessageDetail table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | Id | int |  | PublicMessage’s ID |
|  | UserId | int |  | UserID who send message |
|  | EventId | int |  | Event id which contain message |
|  | Message | String |  | Message’s content |
|  | CreatedDate | Datetime |  | Message’s sent time |
|  | Status | bool |  | Message’s status |

Table ‑11: PublicMessageDetail table

### PublicRoom table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | PublicRoomId | int |  | PublicMessage’s ID |
|  | ConnectionId | int |  | Connection ID of room chat |
|  | EventId | int |  | Event’s id which contain room chat |

Table ‑11: PublicRoom table