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|  |
| Capstone Project Document |

**FIRST AID**

Report #2 – Data Design

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**- Hanoi, 09/2016 –**

# SIGNATURE PAGE

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Record of change

\*A - Added M - Modified D – Deleted

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Effective Date | Changed Item | A,M,D | Change Description | Reason for Change | Rev. Number |
| 26/Sep/2016 | Create Data Design | A | Create Data Design | First version | 1.0 |
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# INTRODUCTION

## Purpose

First Aid 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** |
| FA | First Aid |
| FAA | First Aid Application |
| Faq | Frequently Asked Questions |

Table ‑: Acronyms and Definitions

## References

|  |  |
| --- | --- |
| **Document** | **Title** |
| Class Design Document | FAVN\_Class Design\_EN |
| Architecture Design | FAVN\_Architecture Design\_EN |
| Software Requirement Specification | FAVN\_Software Requirement Specification\_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** |
|  | Admin | An Admin who manage all registered user |
|  | FAA User | A FAA User who using FA application |
|  | Dispatcher | A Dispatcher who using Dispatcher web |
|  | Caller | A Caller who calls 115 |
|  | Ambulance Team | An Ambulance Team who control a ambulance car |
|  | Medical Center | A Medical Center which 115 center in the different city |
|  | Faq | A Faq which question of user for a injury |
|  | Injury | An Injury which |
|  | Instruction | An Instruction which content of a emergency situation |
|  | Learning Instructions | A Learning Instruction which content of a learning information |
|  | Health Facility | A Health Facility which hospital or medicine center |
|  | Expert | An Expert who answers the questions of user |

**Table 2-1:** Entity description

### Relationship

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Relation** | **Properties** | **From** | **To** | **Description** |
|  | Has | None | Medical Center | Ambulance Team | A medical center has many ambulance |
|  | Look for | None | FAA User | Health Facility | A FAA’s user looks for many health facility |
|  | Has | None | Injury | Faq | An Injury has many faq or not |
|  | Answer | None | Expert | Faq | An expert can answers many faq |
|  | Has | None | Medical Center | Dispatcher | A medical center has many dispatchers |
|  | Dispatch | None | Dispatcher | Ambulance Team | A dispatcher dispatchs many ambulances |
|  | Emergency Request | None | Caller | Dispatcher | A caller has emergency request for dispatcher |
|  | Has | None | FAA User | Faq | A FAA’s user creates many faqs or not, a faq created by 1 or many FAA’s user s |
|  | Has | None | Caller | Injury | A caller has many injuries or not |
|  | Has | None | Injury | Instruction | An injury has many instructions |
|  | Has | None | Injury | Learning Instruction | An injury has many learn informations |
|  | Manage Account | None | Admin | Ambulance Team | Admin manages many ambulance team’s account |
|  | Manage Account | None | Admin | Dispatcher | Admin manages many dispatcher’s account |
|  | Create | None | Expert | Instruction | An expert creates many instruction |
|  | Create | None | Expert | Learning Instruction | An expert creates many learning instruction |
|  | Create | None | Expert | Injury | An expert creates many injuries |

Table ‑2: Relationship description

## Table Diagram

**Figure 2‑2:** Table Diagram

### Users table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | UserID | int | No | User’s ID |
|  | UserName | varchar | No | User’s name |
|  | Password | varchar |  | User’s password |
|  | CenterID | int |  | User’s centerID |
|  | RoleID | int | No | User’s roleID |
|  | Name | varchar |  | User’s real name |
|  | Phone | varchar |  | User’s phone number |
|  | Email | varchar |  | User’s email address |
|  | Address | varchar |  | User’ address |
|  | RememberToken | varchar |  | User’s |
|  | IsDeleted | int |  | User’s delete status |
|  | Updated at | TIMESTAMP |  | User’s updated time |
|  | Created at | TIMESTAMP |  | User’s created time |

Table ‑3: User table

### Ambulances table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | AmbulanceID | int | No | Ambulance’s ID |
|  | UserID | int | No | Ambulance’s userID |
|  | Team | varchar |  | Ambulance’s team |
|  | Latitude | varchar |  | Ambulance’s latitude |
|  | Longitude | varchar |  | Ambulance’s longitude |
|  | Status | varchar |  | Ambulance’s status |
|  | IsDeleted | int |  | Ambulance’s delete status |
|  | Updated at | TIMESTAMP |  | Ambulance’s updated time |
|  | Created at | TIMESTAMP |  | Ambulance’s created time |

Table ‑4: Ambulances table

### HealthFacilities table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | HealthFacilityID | int | No | HealthFacility’s ID |
|  | Name | varchar |  | HealthFacility’s name |
|  | Type | int |  | HealthFacility’s type |
|  | Address | int |  | HealthFacility’s address |
|  | Vincity | varchar |  | HealthFacility’s vincity |
|  | Phone | varchar |  | HealthFacility’s phone number |
|  | Latitude | varchar |  | HealthFacility’s latitude |
|  | Longitude | varchar |  | HealthFacility’s longitude |
|  | IsDeleted | int |  | HealthFacility’s delete status |
|  | Updated at | TIMESTAMP |  | HealthFacility’s updated time |
|  | Created at | TIMESTAMP |  | HealthFacility’s created time |

Table ‑5: HealthFacilities table

### Faqs table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | FaqID | int | No | Faq’s ID |
|  | UserID | int | No | Faq’s userID |
|  | InjuryID | int | No | Faq’s injuryID |
|  | Question | varchar |  | Faq’s question |
|  | Answer | varchar |  | Faq’s answer |
|  | IsDeleted | int |  | Faq’s delete status |
|  | Updated at | TIMESTAMP |  | Faq’s updated time |
|  | Created at | TIMESTAMP |  | Faq’s created time |

Table ‑6: Faqs table

### Roles table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | RoleID | int | No | Role’s ID |
|  | Name | varchar |  | Role’s name |
|  | IsDeleted | int |  | Role’s delete status |
|  | Updated at | TIMESTAMP |  | Role’s updated time |
|  | Created at | TIMESTAMP |  | Role’s created time |

Table ‑7: Roles table

### Centers table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | CenterID | int | No | Center’s ID |
|  | CenterName | varchar |  | Center’s name |
|  | Phone | varchar |  | Center’s phone number |
|  | Email | varchar |  | Center’s email address |
|  | Address | varchar |  | Center’s address |
|  | IsDeleted | int |  | Center’s delete status |
|  | Updated at | TIMESTAMP |  | Center’s updated time |
|  | Created at | TIMESTAMP |  | Center’s created time |

Table ‑8: Centers table

### Injuries table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | InjuryID | int | No | Injury’s ID |
|  | InjuryName | varchar |  | Injury’s name |
|  | Symptom | varchar |  | Injury’s symptom |
|  | Priority | varchar |  | Injury’s priority |
|  | Image | varchar |  | Injury’s image |
|  | IsDeleted | int |  | Injury’s delete status |
|  | Updated at | TIMESTAMP |  | Injury’s updated time |
|  | Created at | TIMESTAMP |  | Injury’s created time |

Table ‑9: Injuries table

### Answers table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | AnswerID | int | No | Answer’s ID |
|  | UserID | int | No | Answer’s userID |
|  | QuestionID | int | No | Answer’s questionID |
|  | Answer | varchar |  | Answer’s answer |
|  | Date | Date |  | Answer’s date |
|  | IsDeleted | int |  | Answer’s delete status |
|  | Updated at | TIMESTAMP |  | Answer’s updated time |
|  | Created at | TIMESTAMP |  | Answer’s created time |

Table ‑: Answers table

### Questions table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | QuestionID | int | No | Question’s ID |
|  | InjuryID | int |  | Question’s injuryID |
|  | Asker | varchar |  | Question’s asker name |
|  | AskerEmail | varchar |  | Question’s asker email address |
|  | Title | varchar |  | Question’s title |
|  | Content | varchar |  | Question’s content |
|  | CountAnswer | int |  | Question’s countAnswer |
|  | IsDeleted | int |  | Question’s delete status |
|  | Updated at | TIMESTAMP |  | Question’s updated time |
|  | Created at | TIMESTAMP |  | Question’s created time |

Table ‑: Questions table

### Update table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | UpdateID | int |  | Update’s ID |
|  | TableName | varchar |  | Update’s table name |
|  | Updated at | TIMESTAMP |  | Update’s updated time |
|  | Created at | TIMESTAMP |  | Update’s created time |

Table ‑: Update table

### Notifications table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | NotificationID | int | No | Notification’s ID |
|  | NotificationTypeID | int | No | Notification’s notification type ID |
|  | TypeID | int |  | Notification’s typeID |
|  | Updated at | TIMESTAMP |  | Notification’s updated time |
|  | Created at | TIMESTAMP |  | Notification’s created time |

Table ‑: Notifications table

### Callers table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | CallerID | int | No | Caller’s ID |
|  | InjuryID | int |  | Caller’s injuryID |
|  | Phone | varchar |  | Caller’s phone number |
|  | Symptom | varchar |  | Caller’s symptom |
|  | Latitude | varchar |  | Caller’s latitude |
|  | Longitude | varchar |  | Caller’s longitude |
|  | Status | varchar |  | Caller’s status |
|  | DispatcherUserID | int |  | Caller’s dispatcher user ID |
|  | AmbulanceUserID | int |  | Caller’s ambulance user ID |
|  | IsDeleted | int |  | Caller’s delete status |
|  | Updated at | TIMESTAMP |  | Caller’s updated time |
|  | Created at | TIMESTAMP |  | Caller’s created time |

Table ‑: Caller table

### Instructions table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | InstructionID | int | No | Instruction’s ID |
|  | InjuryID | int | No | Instruction’s injuryID |
|  | Step | int | No | Instruction’s step |
|  | Content | varchar |  | Instruction’s content |
|  | IsMakeCall | int |  | Instruction’s make call status |
|  | Image | varchar |  | Instruction’s image |
|  | Audio | varchar |  | Instruction’s audio |
|  | IsDeleted | int |  | Instruction’s delete status |
|  | Updated at | TIMESTAMP |  | Instruction’s updated time |
|  | Created at | TIMESTAMP |  | Instruction’s created time |

Table ‑: Instruction table

### LearningInstructions table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
|  | LearningInstruction ID | int | No | LearningInstruction’s ID |
|  | InjuryID | int | No | LearningInstruction’s injury ID |
|  | Step | int | No | LearningInstruction’s step |
|  | Content | varchar |  | LearningInstruction’s content |
|  | Explain | varchar |  | LearningInstruction’s explain |
|  | Image | varchar |  | LearningInstruction’s image |
|  | Audio | varchar |  | LearningInstruction’s audio |
|  | IsDeleted | int |  | LearningInstruction’s delete status |
|  | Updated at | TIMESTAMP |  | LearningInstruction’s updated time |
|  | Created at | TIMESTAMP |  | LearningInstruction’s created time |

Table ‑16: LearningInstruction table

### NotificationTypes table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Allow Null** | **Description** |
| 1 | NotificationTypeID | int | No | NotificationType’s ID |
| 2 | NotificationTypeName | varchar |  | NotificationType’s name |
| 3 | Updated at | TIMESTAMP |  | NotificationType’s updated time |
| 4 | Created at | TIMESTAMP |  | NotificationType’s created time |

Table ‑17: NotificationType table