

Vietnamese Study System for Japanese

DETAIL DESIGN DOCUMENT

Data Design

**Project Code: Veazy**

**Document Code: Veazy\_Data Design\_v1.0\_EN**

**Ha Noi, 03/08/2016**

Record of change

\*A - Added M - Modified D – Deleted

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Effective Date** | **Changed Items** | **A\* M, D** | **Change Description** | **New Version** |
| 03/08/2016 | Add new | A |  | v1.0 |
| 18/08/2016 | Update | M |  | v1.1 |
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TABLE OF CONTENTS

1 Introduction 5

1.1 Purpose 5

1.2 Definitions, Acronyms and Abbreviations 5

1.3 References 5

2 Database 6

2.1 ERDs 6

2.2 Table Database 7

2.2.1 Table diagram 7

2.2.2 Course table 8

2.2.3 Exam table 8

2.2.4 Lesson table 9

2.2.5 LessonVersion table 9

2.2.6 Report table 10

2.2.7 User table 11

2.2.8 Answer table 12

2.2.9 ExamAnswer table 12

2.2.10 ExamQuestion table 13

2.2.11 Question table 13

3 Appendix 15

3.1 Data format symbol 15

# Introduction

## Purpose

Vietnamese Study System for Japanese data design document describes the structure of database and the structure of file system including internal files structure as well as interface files structure.

## Definitions, Acronyms and Abbreviations

|  |  |  |
| --- | --- | --- |
| Abbreviations | Description | Comment |
| P/F | Primary/ Foreign key | Use to indicate that a field is a primary or foreign key in table |
| NOT | the attribute can’t be null | Set value “not null” for attribute in table |
| U | the attribute is unique | Set value “unique” for attribute in table |
| CRUD | Create, read, update, delete |  |

## References

List the entire reference document such as: other document of the system, or the technical article.

|  |  |
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| Document Number | Title |
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# Database

## ERDs

Entity relationship diagrams

D:\Downloads\Untitled Diagram.png

**Figure 1: Entity relationship diagrams**

|  |  |  |
| --- | --- | --- |
| **No** | **Entity** | **Description** |
| 1 | Admin | System administrator |
| 2 | Learner | The end-user who learn on the website |
| 3 | Content Editor | The user who create, update lesson content and questions. |
| 4 | Question | Question for the exam |
| 5 | Lesson | The lesson |
| 6 | Exam | Examination for the user |
| 7 | Dictionary | The dictionary |

## Table Database

### C:\Users\CuHo\Desktop\table.pngTable diagram

Figure 2: Table diagram

n

|  |  |  |
| --- | --- | --- |
| **No** | **Table Name** | **Description** |
|  | Course | Store course information |
|  | Exam | Store all exam of user. |
|  | Lesson | Store lesson information |
|  | LessonVersion | Store the version of lesson |
|  | Report | Store user report |
|  | User | Store user information |
|  | Answer | Store question answer |
|  | ExamAnswer | Store answer of a question in exam |
|  | ExamQuestion | Store question of an exam |
|  | Question | Store question information |

### Course table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Max  Length | Null | Unique | P/F Key | Default | Description |
| 1 | id | integer |  | NOT |  | P |  |  |
| 2 | des | character | 255 |  |  |  |  | description |
| 3 | name | character | 50 | NOT | U |  |  |  |

### 

### Exam table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial | NOT |  | P |  |  |
| 2 | createdate | bigint |  |  |  |  |  |
| 3 | deletedate | bigint |  |  |  |  |  |
| 4 | deleteflag | bool | NOT |  |  | FALSE |  |
| 5 | updatedate | bigint |  |  |  |  |  |
| 6 | courseid | integer | NOT |  |  |  |  |
| 7 | etatime | integer | NOT |  |  | 0 | estimate time |
| 8 | finishstate | bool | NOT |  |  |  |  |
| 9 | questionskill | integer |  |  |  |  |  |
| 10 | result | real | NOT |  |  | 0.0 |  |
| 11 | takentime | integer | NOT |  |  | 0 |  |
| 12 | userid | integer | NOT |  |  |  |  |

### 

### Lesson table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial | NOT |  | P |  |  |
| 2 | createdate | bigint |  |  |  |  |  |
| 3 | deletedate | bigint |  |  |  |  |  |
| 4 | deleteflag | bool | NOT |  |  | FALSE |  |
| 5 | updatedate | bigint |  |  |  |  |  |
| 6 | courseid | integer | NOT |  |  |  |  |
| 7 | versionid | integer |  |  |  |  |  |
| 8 | index | serial | NOT |  |  |  |  |

### 

### LessonVersion table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Max  Length | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial |  | NOT |  | P |  |  |
| 2 | article | text |  |  |  |  |  |  |
| 3 | createdate | bigint |  |  |  |  |  |  |
| 4 | creatorid | integer |  | NOT |  |  | FALSE |  |
| 5 | description | text |  | NOT |  |  |  |  |
| 6 | grammar | text |  |  |  |  |  |  |
| 7 | lessonid | integer |  | NOT |  |  |  |  |
| 8 | listening | text |  |  |  |  |  |  |
| 9 | practice | text |  |  |  |  |  |  |
| 10 | reading | text |  |  |  |  |  |  |
| 11 | state | integer |  | NOT |  |  | 1 |  |
| 12 | title | varchar | 254 | NOT |  |  |  |  |
| 13 | updatedate | bigint |  |  |  |  |  |  |
| 14 | version | integer |  | NOT |  |  | 1 |  |
| 15 | vocab | text |  |  |  |  |  |  |

### 

### Report table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial | NOT |  | P |  |  |
| 2 | createdate | bigint |  |  |  |  |  |
| 3 | deletedate | bigint |  |  |  |  |  |
| 4 | deleteflag | bool | NOT |  |  | FALSE |  |
| 5 | updatedate | bigint |  |  |  |  |  |
| 6 | lessonid | integer |  |  |  |  |  |
| 7 | questionid | integer |  |  |  |  |  |
| 8 | isread | bool | NOT |  |  | FALSE |  |
| 9 | receiverid | integer |  |  |  |  |  |
| 10 | senderid | integer |  |  |  |  |  |

### 

### User table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Max  Length | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial |  | NOT |  | P |  | Auto increase |
| 2 | createdate | bigint |  |  |  |  |  |  |
| 3 | deletedate | bigint |  |  |  |  |  |  |
| 4 | deleteflag | bool |  | NOT |  |  | FALSE |  |
| 5 | updatedate | bigint |  |  |  |  |  |  |
| 6 | address | varchar | 255 |  |  |  |  |  |
| 7 | bio | varchar | 255 |  |  |  |  | biographic |
| 8 | dob | bigint |  |  |  |  |  | date of birth |
| 9 | email | varchar | 254 | NOT | U |  |  |  |
| 10 | password | char(32) |  | NOT |  |  |  |  |
| 11 | firstname | varchar | 30 |  |  |  |  |  |
| 12 | hobby | varchar | 255 |  |  |  |  |  |
| 13 | isbanned | bool |  | NOT |  |  | FALSE |  |
| 14 | joindate | bigint |  | NOT |  |  |  |  |
| 15 | lastname | varchar | 30 |  |  |  |  |  |
| 16 | quote | varchar | 255 |  |  |  |  |  |
| 17 | role | integer |  | NOT |  |  | 3 |  |
| 18 | username | varchar | 30 |  | U |  |  |  |
| 19 | website | varchar | 255 |  |  |  |  |  |

### 

### Answer table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Max Length | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial |  | NOT |  | P |  | Auto increase |
| 2 | createdate | bigint |  |  |  |  |  |  |
| 3 | deletedate | bigint |  |  |  |  |  |  |
| 4 | deleteflag | bool |  | NOT |  |  | FALSE |  |
| 5 | updatedate | bigint |  |  |  |  |  |  |
| 6 | answer | varchar | 255 | NOT |  |  |  |  |
| 7 | isright | bool |  | NOT |  |  | FALSE |  |
| 8 | questionmodel\_id | integer |  | NOT |  | F |  |  |

### ExamAnswer table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Max Length | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial |  | NOT |  | P |  | Auto increase |
| 2 | createdate | bigint |  |  |  |  |  |  |
| 3 | deletedate | bigint |  |  |  |  |  |  |
| 4 | deleteflag | bool |  | NOT |  |  | FALSE |  |
| 5 | updatedate | bigint |  |  |  |  |  |  |
| 6 | answer | varchar | 255 | NOT |  |  |  |  |
| 7 | isright | bool |  | NOT |  |  | FALSE |  |
| 8 | isselected | bool |  | NOT |  |  | FALSE |  |
| 9 | examquestionmodel\_id | integer |  |  |  | F |  |  |

### ExamQuestion table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Max Length | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial |  | NOT |  | P |  | Auto increase |
| 2 | createdate | bigint |  |  |  |  |  |  |
| 3 | deletedate | bigint |  |  |  |  |  |  |
| 4 | deleteflag | bool |  | NOT |  |  | FALSE |  |
| 5 | updatedate | bigint |  |  |  |  |  |  |
| 6 | attachment | varchar | 255 |  |  |  |  |  |
| 7 | ischanged | bool |  |  |  |  |  |  |
| 8 | numberofquestion | integer |  | NOT |  |  | 1 |  |
| 9 | question | text |  | NOT |  |  |  |  |
| 10 | questionanswertype | integer |  | NOT |  |  | 1 |  |
| 11 | questionid | integer |  | NOT |  |  |  |  |
| 12 | questiontype | integer |  | NOT |  |  | 1 |  |
| 13 | exammodel\_id | integer |  |  |  | F |  |  |
| 14 | parentquestion\_id | integer |  |  |  | F |  |  |

### 

### Question table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Field Name | Type | Max Length | Null | Unique | P/F Key | Default | Description |
| 1 | id | serial |  | NOT |  | P |  | Auto increase |
| 2 | createdate | bigint |  |  |  |  |  |  |
| 3 | deletedate | bigint |  |  |  |  |  |  |
| 4 | deleteflag | bool |  | NOT |  |  | FALSE |  |
| 5 | updatedate | bigint |  |  |  |  |  |  |
| 6 | attachment | varchar | 255 |  |  |  |  |  |
| 7 | courseid | integer |  | NOT |  |  |  |  |
| 8 | creatorid | integer |  | NOT |  |  |  |  |
| 9 | numberofquestion | integer |  | NOT |  |  | 1 |  |
| 10 | question | text |  | NOT |  |  |  |  |
| 11 | questionanswertype | integer |  | NOT |  |  | 1 |  |
| 12 | questioncode | serial |  | NOT |  |  |  |  |
| 13 | questionetatime | integer |  | NOT |  |  | 60 |  |
| 14 | questionskill | integer |  | NOT |  |  | 1 |  |
| 15 | questiontype | integer |  | NOT |  |  | 1 |  |
| 16 | parentquestion\_id | integer |  |  |  | F |  |  |

# Appendix

## Data format symbol

Following symbols are used to describe format of data field in files as well as in tables.

|  |  |
| --- | --- |
| Symbol | Description |
| # | Digit placeholder. |
| . | Decimal placeholder. |
| , | Thousands separator. |
| : | Time separator. |
| / | Date separator. |
| \ | Treat the next character in the mask string as a literal. This allows you to include the '#', '&', 'A', and '?' characters in the mask. This character is treated as a literal for masking purposes. |
| > | Convert all the characters that follow to uppercase. |
| < | Convert all the characters that follow to lowercase. |
| A | Alphanumeric character placeholder (entry required). |
| A | Alphanumeric character placeholder (entry optional). |
| 9 | Digit placeholder (entry optional). For example: 0 – 9. |
| 0 | Digit placeholder (entry required). For example: 0 – 9. |
| C | Character or space placeholder (entry optional). Valid values for this placeholder are ANSI characters in the following ranges: 32-126 and 128-255. |
| & | Character placeholder (entry required). Valid values for this placeholder are ANSI characters in the following ranges: 32-126 and 128-255. |
| ? | Letter placeholder. For example: a – z or A – Z. |
| Literal | All other symbols are displayed as literals; that is, as themselves. bound in “” like “ABC” |