

USEFUL JAPANESE DICTIONARY FOR VIETNAMESE

DETAIL DESIGN DOCUMENT

Class Design

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SIGNATURE PAGE

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# Introduction

## Purpose

Useful Japanese Dictionary for Vietnamese class design document contains descriptions of all classes of the Useful Japanese Dictionary for Vietnamese system. It includes:

* Class diagrams that describe the static relation of all classes in the system.

## Definitions, Acronyms and Abbreviations

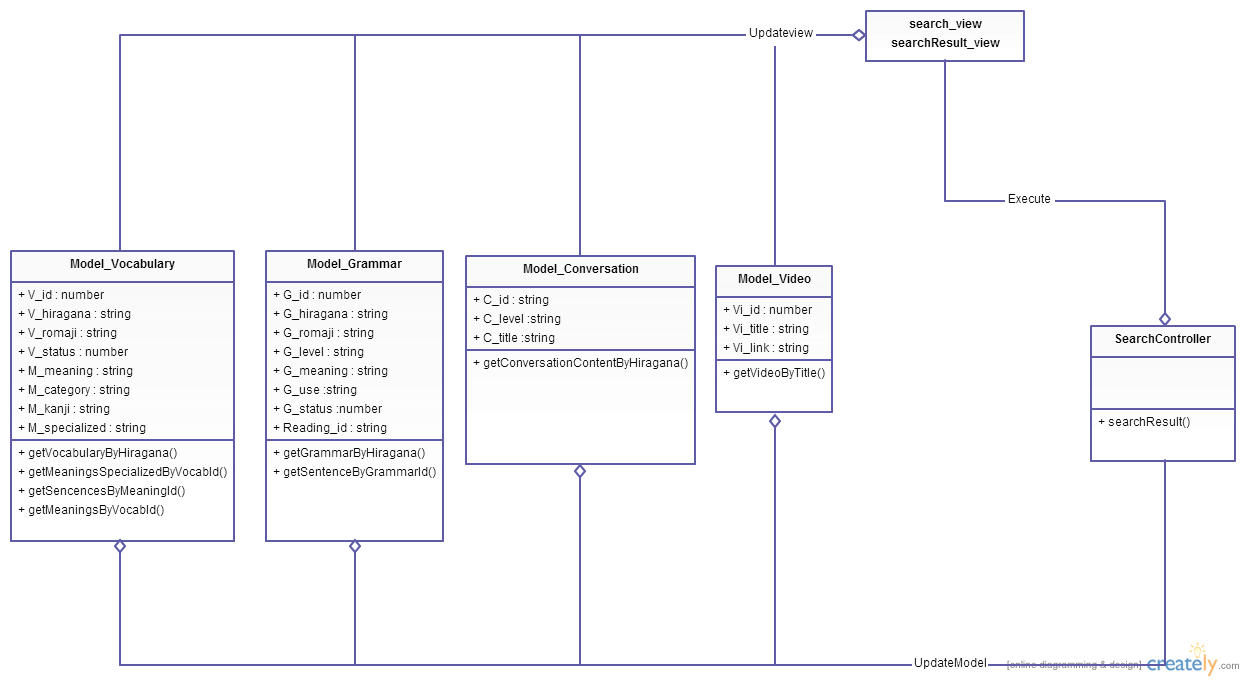
|  |  |  |
| --- | --- | --- |
| Abbreviations | Description | Comment |
| MVC | Model View Control model |  |

# Packages

|  |  |  |  |
| --- | --- | --- | --- |
| No | Package | Language | Description |
| 1. 01 | User | PHP | Store all information of User, or perform register, reset password. |
|  | Admin | PHP | Manage User, Vocabulary, Grammar , Kanji, ReadingDocument, TrainingListening, Video, Contact, Sentence, Conversation, Test. |
|  | Vocabulary | PHP | Store all information of Vocabulary. |
|  | Grammar | PHP | Store all information of Grammar. |
|  | Kanji | PHP | Store all information of Kanji. |
|  | ReadingDocumnet | PHP | Store all information of Document. |
|  | TrainingListening | PHP | Store all information of Listen. |
|  | Video | PHP | Store all information of Video. |
|  | Contact | PHP | Store all information of Contact ( Q&A, opinion). |
|  | Sentence | PHP | Store all information of Sentence. |
|  | Conversation | PHP | Store all information of Conversation. |
|  | Test | PHP | Store all information of Test( question, answer, tracking mark..). |

## Common Package

### Class diagram



**Figure 1: Class diagram Admin package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_Vocabulary |  |
| 2 | Model\_Grammar |  |
| 3 | Model\_Video |  |
| 4 | Model\_Conversation |  |
| 5 | SearchController |  |

### Model\_Vocabulary class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | V\_id | Int |  | private |  |
| 1. 2 | V\_hiragana | String |  | private |  |
| 1. 3 | V\_romaji | String |  | private |  |
| 1. 3 | V\_status | Int |  | private |  |
|  | M\_id | Int |  | private |  |
|  | M\_meaningvn | String |  | private |  |
|  | M\_category | String |  | private |  |
|  | M\_kanji | String |  | private |  |
|  | M\_specialized | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getVocabularyByHiragana() | Interact with database |
|  | getMeaningsSpecializedByVocabId() | Interact with database |
|  | getSencencesByMeaningId() | Interact with database |
|  | getMeaningsByVocabId() | Interact with database |

### Model\_Grammar class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | G\_id | Int |  | private |  |
| 1. 2 | G\_hiragana | String |  | private |  |
| 1. 3 | G\_romaji | String |  | Private |  |
| 1. 3 | G\_level | String |  | private |  |
|  | G\_meaning | String |  | private |  |
|  | G\_use | String |  | private |  |
|  | G\_status | Int |  | Private |  |
|  | Reading\_id | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getGrammarByHiragana() | Interact with database |
|  | getSentenceByGrammarId() | Interact with database |

### Model\_Video class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | Vi\_id | Int |  | private |  |
| 1. 2 | Vi\_title | String |  | private |  |
| 1. 3 | Vi\_link | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getVideoByTitle() | Interact with database |

### Model\_Conversation class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | C\_id | String |  | private |  |
| 1. 2 | C\_level | String |  | private |  |
| 1. 3 | C\_title | String |  | private |  |
|  | C\_image | String |  | private |  |
|  | Con\_id | Int |  | private |  |
|  | Con\_title | String |  | private |  |
|  | Con\_hiragana | String |  | private |  |
|  | Con\_romaji | String |  | private |  |
|  | Con\_meaning | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getConversationContentByHiragana() | Interact with database |

### SearchController

#### Attributes

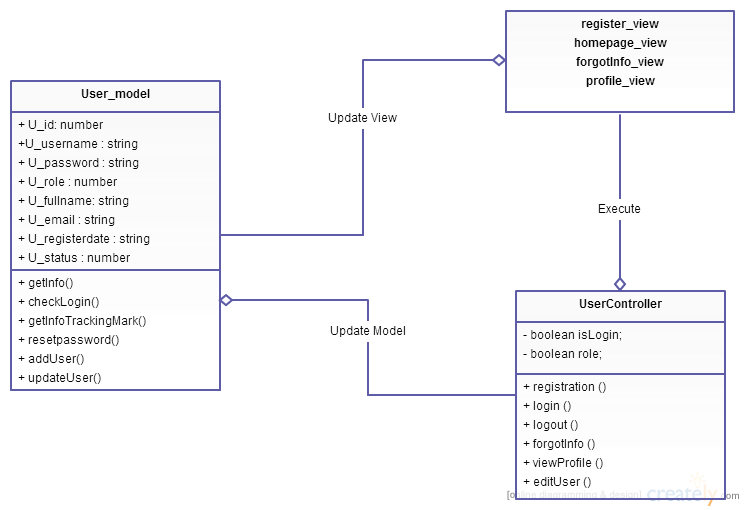
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | searchResults() | Display result search |

## Account management Package

### Class diagram



**Figure 2: Class diagram user package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | User\_model |  |
| 2 | UserController |  |

### Model\_User class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 | u\_id | Int |  | private |  |
| 2 | u\_username | String |  | private |  |
| 3 | u\_password | String |  | private |  |
| 4 | u\_role | Int |  | private |  |
| 5 | u\_fullname | String |  | private |  |
| 6 | u\_email | String |  | private |  |
| 7 | u\_registerdate | String |  | private |  |
| 8 | u\_status | int |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addUser () | Interact with database |
|  | getInfo () | Interact with database |
|  | checkLogin() | Interact with database |
|  | Resetpassword() | Interact with database |
|  | updateUser() | Interact with database |

### UserController class

#### Attributes

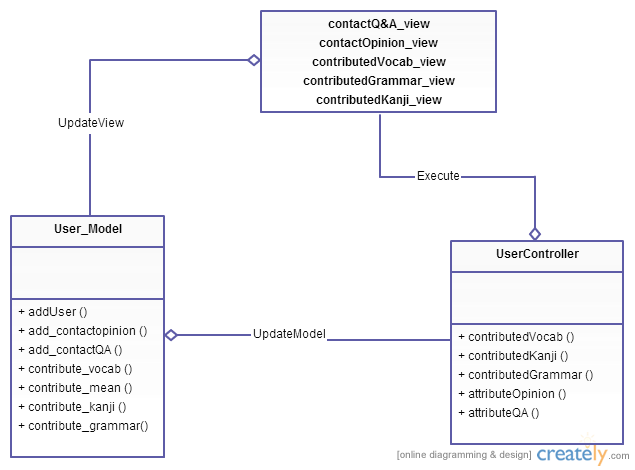
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | registration () | Register new account |
|  | Login() | Login to website |
|  | Logout() | Logout website |
|  | forgotInfo() | Reset password |
|  | viewProfile() | View Profile |
|  | editUser() | Edit account |

## Contact Package

### Class diagram



**Figure 3: Class diagram Contact package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | User\_model |  |
| 2 | UserController |  |

### Model\_User class

#### Attributes

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | add\_contactopinion () | Interact with database |
|  | add\_contactQA () | Interact with database |
|  | contribute\_vocab () | Interact with database |
|  | contribute\_mean () | Interact with database |
|  | contribute\_kanji () | Interact with database |
|  | contribute\_grammar() | Interact with database |

### UserController class

#### Attributes

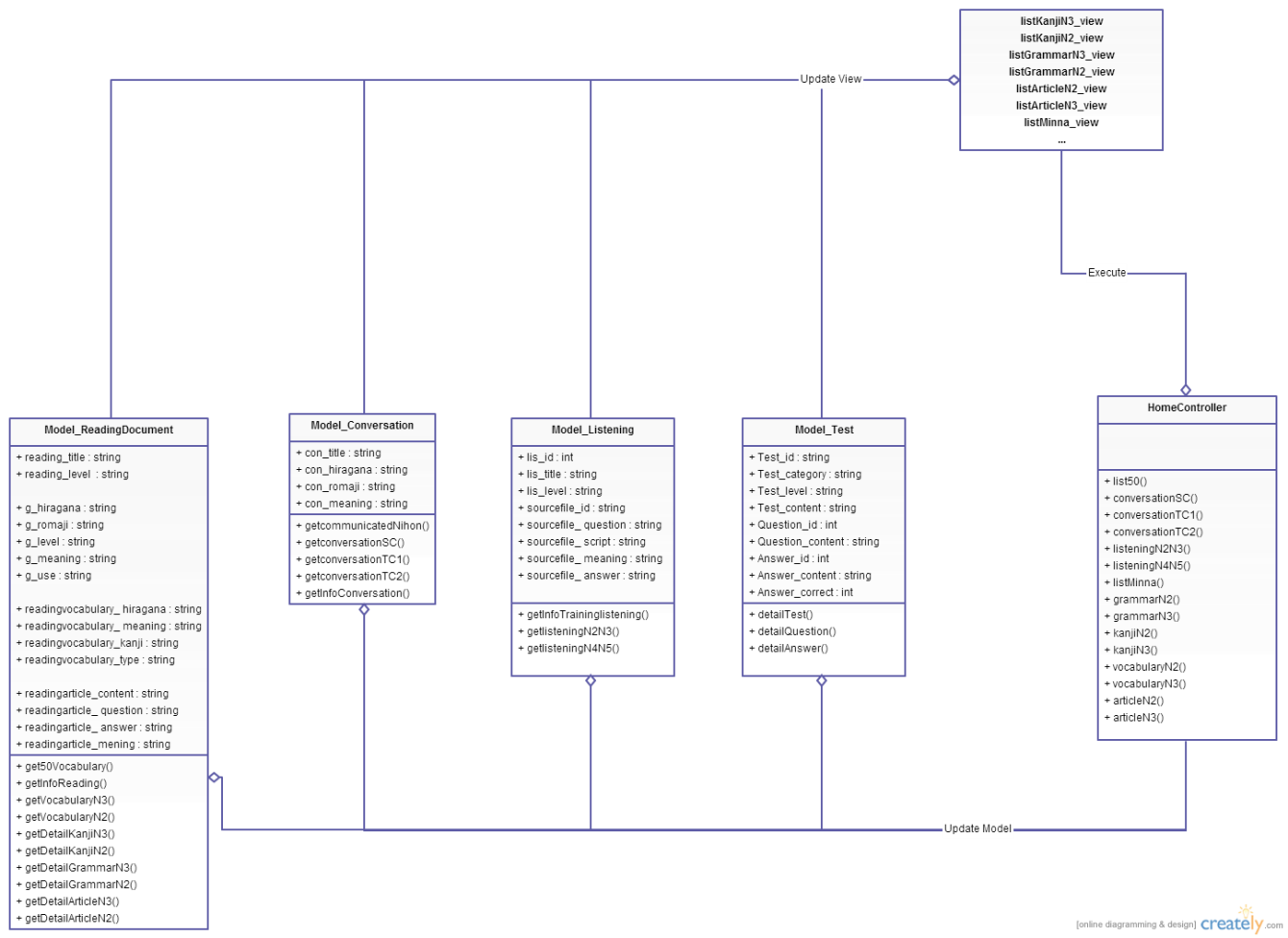
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | contributedVocab () | Contributed Vocabulary |
|  | contributedKanji () | Contributed Kanji |
|  | contributedGrammar () | Contributed Grammar |
|  | attributeOpinion () | Contributed Opinion |
|  | attributeQA () | Contributed QA |

## Practice management Package

### Class diagram



**Figure 4: Class diagram Practice management package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_ReadingDocument |  |
| 2 | Model\_Conversation |  |
| 3 | Model\_Listening |  |
| 4 | Model\_Test |  |
| 5 | ReadingDocumentController |  |

### Model ReadingDocument class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | reading\_title | String |  | private |  |
| 1. 2 | reading\_level | String |  | private |  |
| 1. 3 | g\_hiragana | String |  | private |  |
|  | g\_romaji | String |  | private |  |
|  | g\_level | String |  | private |  |
|  | g\_meaning | String |  | private |  |
|  | g\_use | String |  | private |  |
|  | readingvocabulary\_ hiragana | String |  | private |  |
|  | readingvocabulary\_ meaning | String |  | private |  |
|  | readingvocabulary\_kanji | String |  | private |  |
|  | readingvocabulary\_type | String |  | private |  |
|  | readingarticle\_content | String |  | private |  |
|  | readingarticle\_ question | String |  | private |  |
|  | readingarticle\_ answer | String |  | private |  |
|  | readingarticle\_mening | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | get50Vocabulary() | Interact with database |
|  | getInfoReading() | Interact with database |
|  | getVocabularyN3() | Interact with database |
|  | getVocabularyN2() | Interact with database |
|  | getDetailKanjiN3() | Interact with database |
|  | getDetailKanjiN2() | Interact with database |
|  | getDetailGrammarN3() | Interact with database |
|  | getDetailGrammarN2() | Interact with database |
|  | getDetailArticleN3() | Interact with database |
|  | getDetailArticleN2() | Interact with database |

### Model Conversation class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | C\_id | String |  | private |  |
| 1. 2 | C\_level | String |  | private |  |
| 1. 3 | C\_title | String |  | private |  |
|  | C\_image | String |  | private |  |
|  | Con\_id | Int |  | private |  |
|  | Con\_hiragana | String |  | private |  |
|  | Con\_romaji | String |  | private |  |
|  | Con\_meaning | String |  | private |  |
|  | Con\_file | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getcommunicatedNihon() | Interact with database |
|  | getconversationSC() | Interact with database |
|  | getconversationTC1() | Interact with database |
|  | getconversationTC2() | Interact with database |
|  | getInfoConversation() | Interact with database |

### Model Listening class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | Lis\_id | Int |  | private |  |
| 1. 2 | Lis\_title | String |  | private |  |
|  | Lis\_level |  |  |  |  |
| 1. 3 | Sourcefile\_id | String |  | Private |  |
| 1. 3 | Sourcefile\_ question | String |  | private |  |
|  | Sourcefile\_ script | String |  | private |  |
|  | Sourcefile\_ meaning | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getInfoTraininglistening() | Interact with database |
|  | getlisteningN2N3() | Interact with database |
|  | getlisteningN4N5() | Interact with database |

### Model Test class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | Test\_id | String |  | private |  |
| 1. 2 | Test\_category | String |  | private |  |
| 1. 3 | Test\_level | String |  | private |  |
|  | Test\_content | String |  | private |  |
|  | Question\_id | String |  | private |  |
|  | Question\_content | String |  | private |  |
|  | Answer\_id | Int |  | private |  |
|  | Answer\_content | String |  | private |  |
|  | Answer\_correct | Int |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
| 1 | detailTest() | Interact with database |
| 2 | detailQuestion() | Interact with database |
| 3 | detailAnswer() | Interact with database |

### HomeController class

#### Attributes

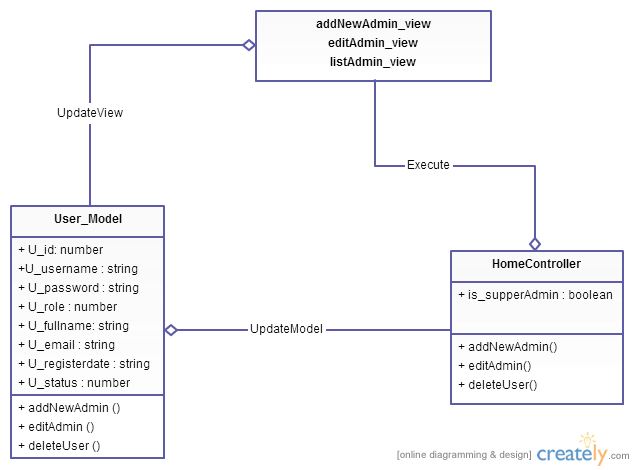
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | list50() | List 50 vocabulary of minanihon |
|  | conversationSC() | List Conversation level elementary |
|  | conversationTC1() | List Conversation level intermediate |
|  | conversationTC2() | List Conversation level intermediate |
|  | listeningN2N3() | List Listening level N2&N3 |
|  | listeningN4N5() | List Listening level N4&N5 |
|  | listMinna() | List minanihon |
|  | grammarN2() | List Grammar level N2 |
|  | grammarN3() | List Grammar level N3 |
|  | kanjiN2() | List Kanji level N2 |
|  | kanjiN3() | List Kanji level N3 |
|  | vocabularyN2() | List Vocabulary level N2 |
|  | vocabularyN3() | List Vocabulary level N3 |
|  | articleN2() | List Article level N2 |
|  | articleN3() | List Article level N3 |

## Admin’s account management Package

### Class diagram



**Figure 5: Class diagram Admin’s account management package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_User |  |
| 2 | HomeController |  |

### Model\_User class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 | u\_id | Int |  | private |  |
| 2 | u\_username | String |  | private |  |
| 3 | u\_password | String |  | private |  |
| 4 | u\_role | Int |  | private |  |
| 5 | u\_fullname | String |  | private |  |
| 6 | u\_email | String |  | private |  |
| 7 | u\_registerdate | String |  | private |  |
| 8 | u\_status | int |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addNewAdmin () | Interact with database |
|  | editAdmin () | Interact with database |
|  | deleteUser () | Interact with database |

### HomeController class

#### Attributes

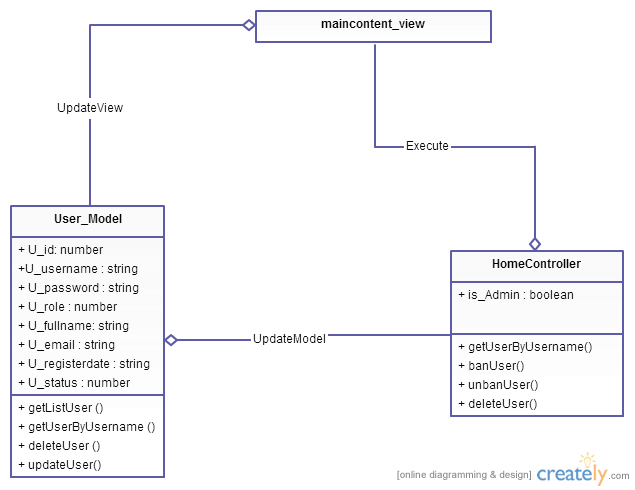
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 | Is\_supperAdmin | boolean |  |  | Check role admin |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addNewAdmin() | Add a new account with role is admin |
|  | editAdmin() | Edit information |
|  | deleteUser() | Delete Admin |

## Management Member’s account

### Class diagram



**Figure 6: Class diagram Management member package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_User |  |
| 2 | HomeController |  |

### Model\_User class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 | u\_id | Int |  | private |  |
| 2 | u\_username | String |  | private |  |
| 3 | u\_password | String |  | private |  |
| 4 | u\_role | Int |  | private |  |
| 5 | u\_fullname | String |  | private |  |
| 6 | u\_email | String |  | private |  |
| 7 | u\_registerdate | String |  | private |  |
| 8 | u\_status | int |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getListUser () | Interact with database |
|  | getUserByUsername () | Interact with database |
|  | deleteUser () | Interact with database |
|  | updateUser() | Interact with database |

### HomeController class

#### Attributes

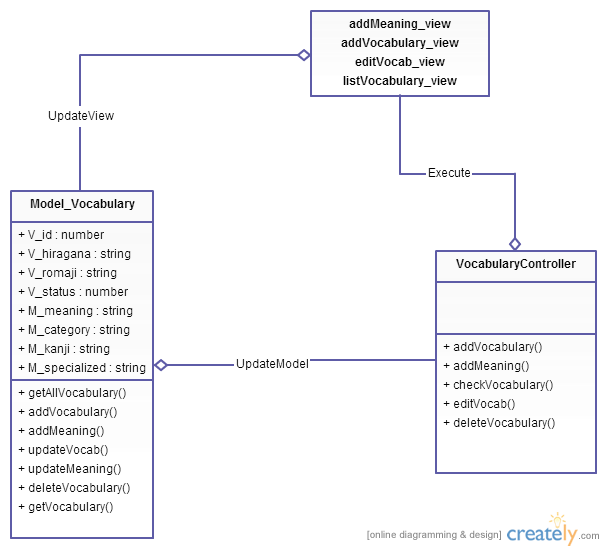
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 | Is\_Admin | boolean |  |  | Check role admin |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addNewAdmin() | Add a new account with role is admin |
|  | editAdmin() | Edit information |
|  | deleteUser() | Delete Admin |

## Vocabulary Management Package

### Class diagram



**Figure 7: Class diagram Vocabulary management package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_Vocabulary |  |
| 2 | VocabularyController |  |

### Model\_Vocabulary class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 | V\_id | Int |  | private |  |
| 2 | V\_hiragana | String |  | private |  |
| 3 | V\_romaji | String |  | private |  |
| 5 | V\_status | Int |  | private |  |
| 6 | M\_id | Int |  | private |  |
| 7 | M\_meaningvn | String |  | private |  |
| 8 | M\_category | String |  | private |  |
| 9 | M\_kanji | String |  | private |  |
| 10 | M\_specialized | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
| 1 | getAllVocabulary() | Interact with database |
| 2 | addVocabulary() | Interact with database |
| 3 | addMeaning() | Interact with database |
| 4 | updateVocab() | Interact with database |
| 5 | updateMeaning() | Interact with database |
| 6 | deleteVocabulary() | Interact with database |
| 7 | getVocabulary() | Interact with database |

### VocabularyController class

#### Attributes

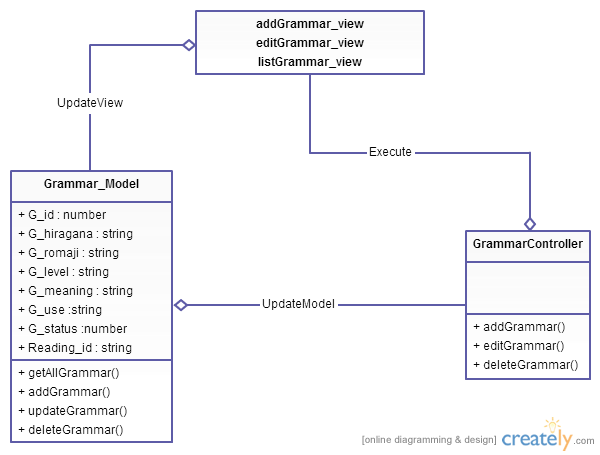
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
|  |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addVocabulary() | Create vocabulary |
|  | addMeaning() | Add meaning of vocabulary |
|  | checkVocabulary() | Check exits vocabulary |
|  | editVocab() | Edit vocabulary |
|  | deleteVocabulary() | Delete Vocabulary |

## Grammar Management Package

### Class diagram



**Figure 8: Class diagram Grammar management package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_Grammar |  |
| 2 | GrammarController |  |

### Model\_Grammar class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | G\_id | Int |  | private |  |
| 1. 2 | G\_hiragana | String |  | private |  |
| 1. 3 | G\_romaji | String |  | Private |  |
| 1. 3 | G\_level | String |  | private |  |
|  | G\_meaning | String |  | private |  |
|  | G\_use | String |  | private |  |
|  | G\_status | Int |  | Private |  |
|  | Reading\_id | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getAllGrammar() | Interact with database |
|  | addGrammar() | Interact with database |
|  | updateGrammar() | Interact with database |
|  | deleteGrammar() | Interact with database |

### GrammarController class

#### Attributes

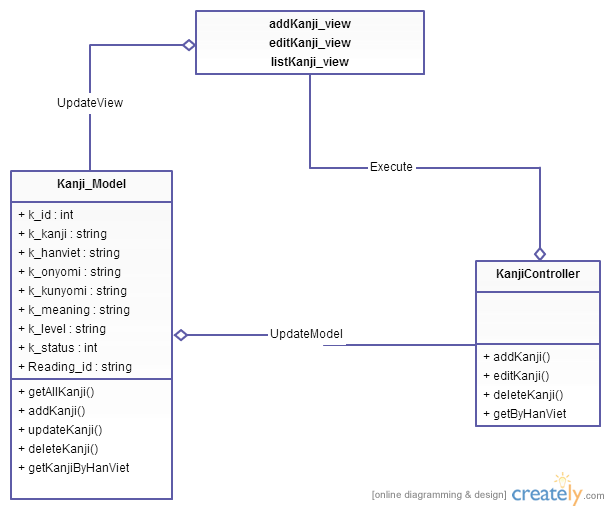
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
|  |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addGrammar() | Create grammar |
|  | editGrammar() | Edit grammar |
|  | deleteGrammar() | Delete grammar |
|  | Index() | List grammar |

## Kanji Management Package

### Class diagram



**Figure 9: Class diagram Kanji management package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_Kanji |  |
| 2 | KanjiController |  |

### Model\_Kanji class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | K\_id | Int |  | private |  |
| 1. 2 | K\_kanji | String |  | private |  |
| 1. 3 | K\_hanviet | String |  | Private |  |
| 1. 3 | K\_onyomi | String |  | private |  |
|  | K\_kunyomi | String |  | private |  |
|  | K\_meaning | String |  | private |  |
|  | K\_level | String |  | private |  |
|  | K\_status | Int |  | private |  |
|  | Reading\_id | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getAllKanji() | Interact with database |
|  | addKanji() | Interact with database |
|  | updateKanji() | Interact with database |
|  | deleteKanji() | Interact with database |
|  | getKanjiByHanViet() | Interact with database |

### KanjiController class

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

#### Attributes

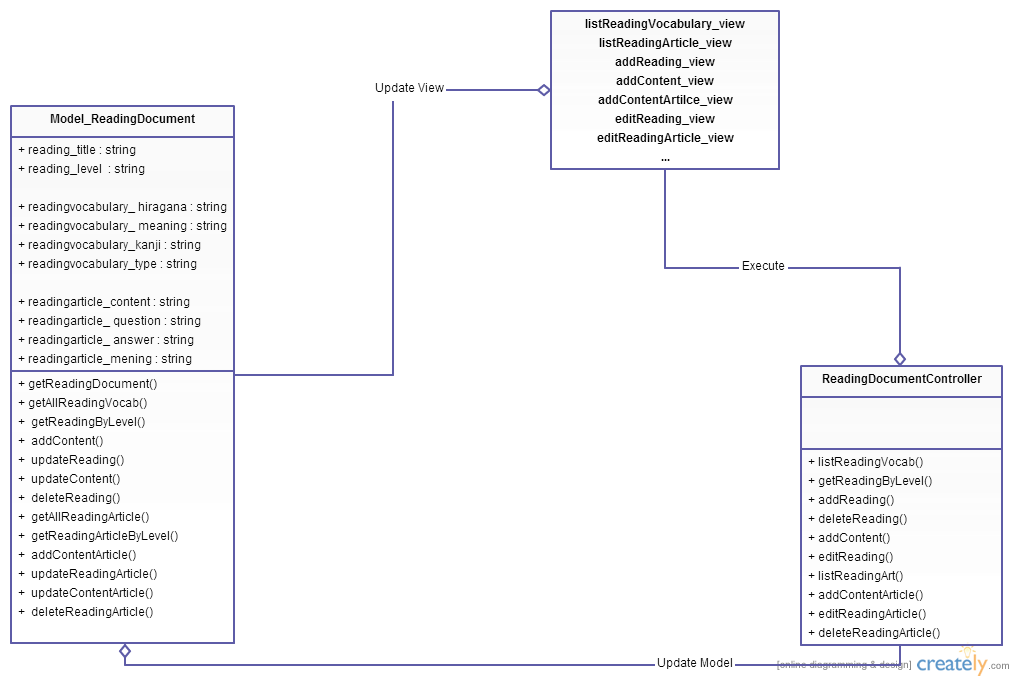
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
|  |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addKanji() | Create kanji |
|  | editKanji() | Edit kanji |
|  | deleteKanji() | Delete kanji |
|  | Get\ByHanViet() | Search kanji |

## ReadingDocument Management Package

### Class diagram



**Figure 10: Class diagram ReadingDocument management package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_ReadingDocument |  |
| 2 | ReadingDocumentController |  |

### Model ReadingDocument class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 | reading\_title | String |  | private |  |
| 2 | reading\_level | String |  | private |  |
| 3 | readingvocabulary\_ hiragana | String |  | private |  |
| 4 | readingvocabulary\_ meaning | String |  | private |  |
| 5 | readingvocabulary\_kanji | String |  | private |  |
| 6 | readingvocabulary\_type | String |  | private |  |
| 7 | readingarticle\_content | String |  | private |  |
| 8 | readingarticle\_ question | String |  | private |  |
| 9 | readingarticle\_ answer | String |  | private |  |
| 10 | readingarticle\_mening | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
| 1 | getReadingDocument() | Interact with database |
| 2 | getAllReadingVocab() | Interact with database |
| 3 | getReadingByLevel() | Interact with database |
| 4 | addContent() | Interact with database |
| 5 | updateReading() | Interact with database |
| 6 | updateContent() | Interact with database |
| 7 | deleteReading() | Interact with database |
| 8 | getAllReadingArticle() | Interact with database |
| 9 | getReadingArticleByLevel() | Interact with database |
| 10 | addContentArticle() | Interact with database |
| 11 | updateReadingArticle() | Interact with database |
| 12 | updateContentArticle() | Interact with database |
| 13 | deleteReadingArticle() | Interact with database |

### ReadingDocumentController class

#### Attributes

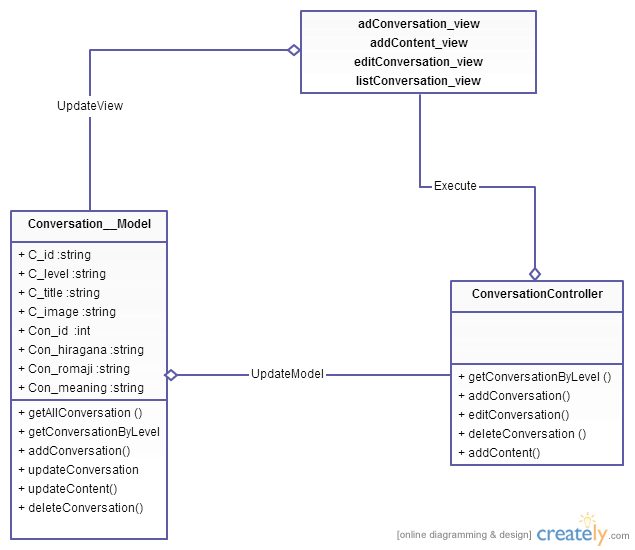
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1 |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | listReadingVocab() | List vocabulary of readingdocument |
|  | getReadingByLevel() | Search reading document |
|  | addReading() | Add Reading document |
|  | deleteReading() | Delete Reading document |
|  | addContent() | Add vocabulary of reading document |
|  | editReading() | Edit Reading document |
|  | listReadingArt() | List Article |
|  | addContentArticle() | Add content of Article |
|  | editReadingArticle() | Edit Article |
|  | deleteReadingArticle() | Delete Article |

## Conversation Management Package

### Class diagram



**Figure 11: Class diagram Conversation package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_Conversation |  |
| 2 | Conversation Controller |  |

### Model\_Conversation class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | C\_id | String |  | private |  |
| 1. 2 | C\_level | String |  | private |  |
| 1. 3 | C\_title | String |  | private |  |
|  | C\_image | String |  | private |  |
|  | Con\_id | Int |  | private |  |
|  | Con\_hiragana | String |  | private |  |
|  | Con\_romaji | String |  | private |  |
|  | Con\_meaning | String |  | private |  |
|  | Con\_file | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getAllConversation () | Interact with database |
|  | getConversationByLevel() | Interact with database |
|  | addConversation() | Interact with database |
|  | updateConversation() | Interact with database |
|  | updateContent() | Interact with database |
|  | deleteConversation() | Interact with database |

### ConversationController

#### Attributes

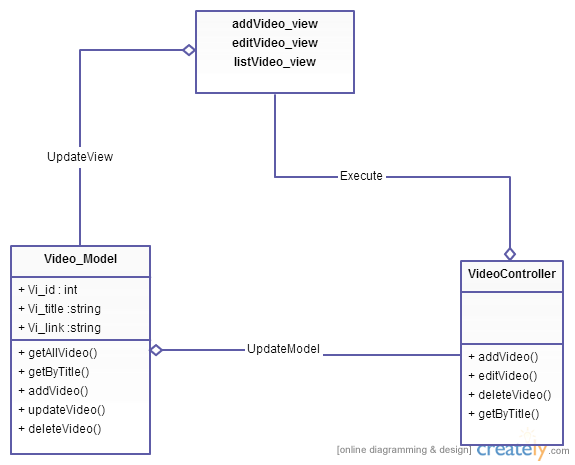
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
|  |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getConversationByLevel () | Search Conversation |
|  | addConversation() | Add Conversation |
|  | editConversation() | Edit Conversation |
|  | deleteConversation () | Delete Conversation |
|  | addContent() | Add Content of Conversation |

## Video Package

### Class diagram



**Figure 12: Class diagram Video package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_Video |  |
| 2 | VideoController |  |

### Model\_Video class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | Vi\_id | Int |  | private |  |
| 1. 2 | Vi\_title | String |  | private |  |
| 1. 3 | Vi\_link | String |  | Private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getAllVideo() | Interact with database |
|  | getByTitle() | Interact with database |
|  | addVideo() | Interact with database |
|  | updateVideo() | Interact with database |
|  | deleteVideo() | Interact with database |

### VideoController

#### Attributes

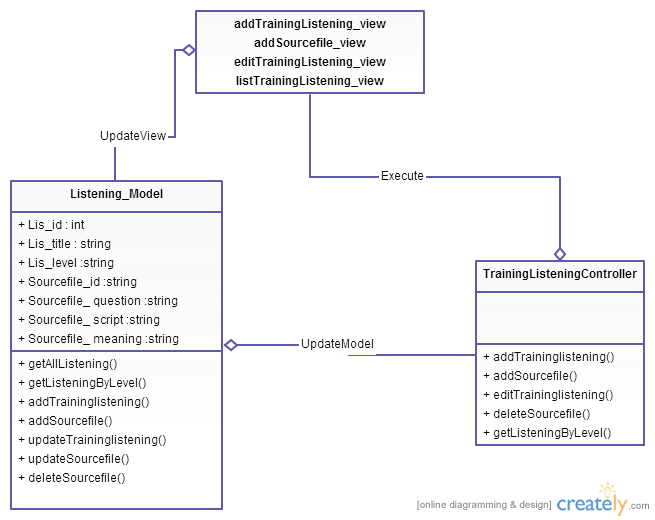
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
|  |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addVideo() | Create Video |
|  | editVideo() | Edit Video |
|  | deleteVideo() | Delete Video |
|  | getByTitle() | Search Video |

## TrainingListening Package

### Class diagram



**Figure 13: Class diagram TrainingListening package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_TrainingListening |  |
| 2 | TrainingListening Controller |  |

### Model\_TraniningListening class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | Lis\_id | Int |  | private |  |
| 1. 2 | Lis\_title | String |  | private |  |
|  | Lis\_level |  |  |  |  |
| 1. 3 | Sourcefile\_id | String |  | Private |  |
| 1. 3 | Sourcefile\_ question | String |  | private |  |
|  | Sourcefile\_ script | String |  | private |  |
|  | Sourcefile\_ meaning | String |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getAllListening() | Interact with database |
|  | getListeningByLevel() | Interact with database |
|  | addTraininglistening() | Interact with database |
|  | addSourcefile() | Interact with database |
|  | updateTraininglistening() | Interact with database |
|  | updateSourcefile() | Interact with database |
|  | deleteSourcefile() | Interact with database |

### TrainingListeningController

#### Attributes

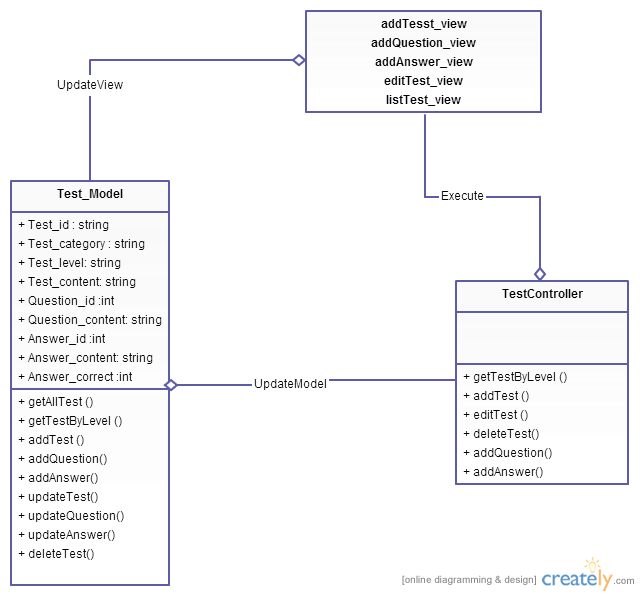
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
|  |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | addTraininglistening() | Create Training Listening |
|  | addSourcefile() | Add Source file |
|  | editTraininglistening() | Edit Training Listening |
|  | deleteSourcefile() | Delete Training Listening |
|  | getListeningByLevel() | Search Training Listening |

## Test Management Package

### Class diagram



**Figure 14: Class diagram Test package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_Test |  |
| 2 | Test Controller |  |

### Model\_Test class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | Test\_id | String |  | private |  |
| 1. 2 | Test\_category | String |  | private |  |
| 1. 3 | Test\_level | String |  | private |  |
|  | Test\_content | String |  | private |  |
|  | Question\_id | String |  | private |  |
|  | Question\_content | String |  | private |  |
|  | Answer\_id | Int |  | private |  |
|  | Answer\_content | String |  | private |  |
|  | Answer\_correct | Int |  | private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
| 1 | getAllTest () | Interact with database |
| 2 | getTestByLevel () | Interact with database |
| 3 | addTest () | Interact with database |
| 4 | addQuestion() | Interact with database |
| 5 | addAnswer() | Interact with database |
| 6 | updateTest() | Interact with database |
| 7 | updateQuestion() | Interact with database |
| 8 | updateAnswer() | Interact with database |
| 9 | deleteTest() | Interact with database |

### TestController

#### Attributes

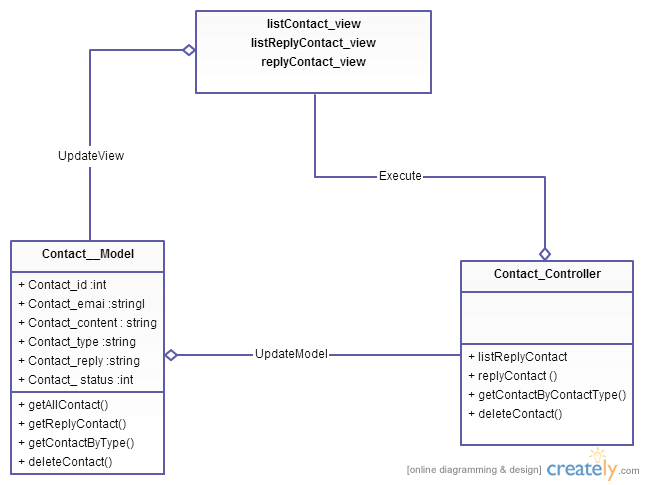
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
|  |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
| 1 | getTestByLevel () | Search Test |
| 2 | addTest () | Create Test |
| 3 | editTest () | Edit Test |
| 4 | deleteTest() | Delete Test |
| 5 | addQuestion() | Add Question of Test |
| 6 | addAnswer() | Add Answer of Question |

## Contact management Package

### Class diagram



**Figure 15: Class diagram Contact package**

|  |  |  |
| --- | --- | --- |
| No | Class Name | Description |
| 1 | Model\_Contact |  |
| 2 | ContactController |  |

### Model\_Contact class

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
| 1. 1 | Contact\_id | Int |  | private |  |
| 1. 2 | Contact\_email | String |  | private |  |
| 1. 3 | Contact\_content | String |  | private |  |
|  | Contact\_type | String |  | private |  |
|  | Contact\_reply | String |  | Private |  |
|  | Contact\_ status | Int |  | Private |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | getAllContact() | Interact with database |
|  | getReplyContact() | Interact with database |
|  | getContactByType() | Interact with database |
|  | deleteContact() | Interact with database |

### ContactController

#### Attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Attribute | Type | Default | Note | Description |
|  |  |  |  |  |  |

#### Methods

|  |  |  |
| --- | --- | --- |
| No | Method | Description |
|  | listReplyContact | List Contact |
|  | replyContact () | Reply Contact |
|  | getContactByContactType() | Search Contact |
|  | deleteContact() | Delete Contact |

# MVC model



***Figure 6: MVC Model***