**Class diagram description**

**Controller class**

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| **UserController** |
| -userService : UserService |

**Property:**

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| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | userService | Object of UserService, used for control feature about user. | **Type:** UserService |

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| **ActivityController** |
| -activityService : ActivityService |

**Property:**

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| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | activityService | Object of ActivityService, used for control feature about activity. | **Type:** ActivityService |

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| **QuestionController** |
| -questionService : QuestionService |

**Property:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | questionService | Object of QuestionService, used for control feature about question and answer. | **Type:** QuestionService |

**Service class**

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| **UserServiceImpl** |
| **-**userDAO : UserDAO |
| +addUser(User user): void |

**Property:**

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| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | userDAO | Object of UserDAO, used for call feature about user. | **Type:** UserDAO |

**Method:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | addUser | Method for create new user in the system. | **Return:** void  **Param:** User |

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| **ActivityServiceImpl** |
| **-**activityDAO : ActivtyDAO |
| +getActivity(): List<Activity>  +editActivity(long aid): void  +postActivity(Activity activity): void  +deleteActivity(long aid): void |

**Property:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | activityDAO | Object of ActivityDAO, used for call feature about activity. | **Type:** ActivityDAO |

**Method:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | getActivity | Method for get all activity from Database in the system. | **Return:** List<Activity> |
| 2 | editActivity | Method for edit activity in the system. | **Return:** void  **Param:** Long |
| 3 | postActivity | Method for post activity in the system. | **Return:** void  **Param:** Activity |
| 4 | deleteActivity | Method for get all activity from Database in the system. | **Return:** void  **Param:** Long |

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| **QuestionAnswerServiceImpl** |
| **-**questionAnswerDAO : QuestionAnswerDAO |
| +DeleteQA(long qid): void  +answer(String answer): void  +getQuestion(): List<QuestionAnswer>  +askquestion(QuestionAnswer question): void |

**Property:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | questionAnswerDAO | Object of QuestionAnswerDAO, used for call feature about question and answer. | **Type:** QuestionAnswerDAO |

**Method:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | DeleteQA | Method for delete question and answer in the system. | **Return:** void |
| 2 | answer | Method for add answer in the system. | **Return:** void  **Param:** String |
| 3 | getQuestion | Method for get all question and answer from Database in the system. | **Return:** List<QuestionAnswer> |
| 4 | askquestion | Method for create question in the system. | **Return:** void  **Param:** QuestionAnswer |

**DAO class**

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| --- |
| **UserDAOImpl** |
| -userRepository : UserRepository |
| +addUser(User user) : void |

**Property:**

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| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | userRepository | Used for controller to database. | UserRepository |

**Method:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | addUser | Used for registeration | void |

|  |
| --- |
| **ActivityDAOImpl** |
| -activityRepository : ActivityRepository |
| +getactivity() : List<Entity.Activity> +editActivity(Activity activity) : void  +postActivity(Activity activity) : void  +deleteActivity(Activity activity) : void |

**Property:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | activityRepository | Used for controller to database. | ActivityRepository |

**Method:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | getactivity() | Used for retrieve list of activity in the database | List<Entity.Activity> |
| 2 | editActivity(Activity activity) | Used for change information about Activity | void |
| 3 | postActivity(Activity activity) | Used for adding new Activity to the database. | void |
| 4 | deleteActivity(Activity activity) | Used for delete activity | void |

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| **QuestionAnswerDAO** |
| -questionAnswerRepository : QuestionRepository |
| +DeleteQA(QuestionAnswer questionAnswer) : void  +answer(String answer) : void  +getQuestion() : List<Entity.QuestionAnswer>  +askQuestion(QuestionAnswer question) : void |

**Property:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | questionAnswerRepository | Used for controller to database. | QuestionRepository |

**Method:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Name** | **Description** | **Remark** |
| 1 | getQuestion() | Used for retrieve list of question in the database | List<Entity.Activity> |
| 2 | DeleteQA(QuestionAnswer questionAnswer) | Used for delete Question. | void |
| 3 | answer(String answer) | Used for adding answer on selected question. | void |
| 4 | askQuestion(QuestionAnswer question) | Used for adding new question into database | void |