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

**DANDELION**

Report #2 – Class Design

|  |  |  |
| --- | --- | --- |
| **Dandelion** | | |
| **Group Members** | Vũ Công Chính | SE02585 |
| Lưu Ngọc Mạnh | SE02619 |
| Nguyễn Minh Huy | SE02723 |
| Dương Đức Anh | SE02700 |
| Vũ Ngọc Trung | SE02967 |
| Cao Thị Phương Mai | SE02908 |
| **Supervisor** | Mr. Nguyễn Văn Sang | |
| **Project code** | DDL | |

**- Hanoi, 09/2015 -**

# SIGNATURE PAGE

AUTHOR: Lưu Ngọc Mạnh 28/09/2015

Project Manager

REVIEWERS: Nguyễn Minh Huy 30/09/2015

Team member

APPROVAL: Nguyễn Văn Sang --/--/--15

Supervisor

Record of change

\*A - Added M - Modified D – Deleted

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Effective Date | Changed Item | A,M,D | Change Description | Reason for Change | Rev. Number |
| 28/Sep/2015 | Create Class Design | A | First version | Create Class Design | 1.0 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

TABLE CONTENTS

[SIGNATURE PAGE 1](#_Toc435912780)

[1 Introduction 4](#_Toc435912781)

[1.1 Purpose 4](#_Toc435912782)

[1.2 Definitions, Acronyms and Abbreviations 4](#_Toc435912783)

[2 Package 4](#_Toc435912784)

[2.1 Package Diagram 4](#_Toc435912785)

[2.2 Package Description 5](#_Toc435912786)

[2.2.1 Model 5](#_Toc435912787)

[2.2.2 DTOs 12](#_Toc435912788)

[2.2.3 View 12](#_Toc435912789)

[2.2.4 Controller 13](#_Toc435912790)

[3 Function 24](#_Toc435912791)

[3.1 Common 24](#_Toc435912792)

[3.1.1 Class diagram 24](#_Toc435912793)

[3.1.2 Sequence diagram 24](#_Toc435912794)

[3.2 Project 27](#_Toc435912795)

[3.2.1 Class diagram 27](#_Toc435912796)

[3.2.2 Sequence diagram 27](#_Toc435912797)

[3.3 Comment 38](#_Toc435912798)

[3.3.1 Class diagram 38](#_Toc435912799)

[3.3.2 Sequence diagram 38](#_Toc435912800)

[3.4 Message 40](#_Toc435912801)

[3.4.1 Class diagram 40](#_Toc435912802)

[3.4.2 Sequence diagram 41](#_Toc435912803)

[3.5 User 42](#_Toc435912804)

[3.5.1 Class diagram 42](#_Toc435912805)

[3.5.2 Sequence diagram 42](#_Toc435912806)

[3.6 Report 44](#_Toc435912807)

[3.6.1 Class diagram 44](#_Toc435912808)

[3.6.2 Sequence diagram 44](#_Toc435912809)

[3.7 Manage Slide 44](#_Toc435912810)

[3.7.1 Class diagram 44](#_Toc435912811)

[3.7.2 Sequence diagram 45](#_Toc435912812)

[3.8 Manage Category 48](#_Toc435912813)

[3.8.1 Class diagram 48](#_Toc435912814)

[3.8.2 Sequence diagram 49](#_Toc435912815)

# Introduction

## Purpose

Dandelion class design document contains descriptions of all classes of the Dandelion. It includes: Class diagrams that describe the static relation of all classes in the system.

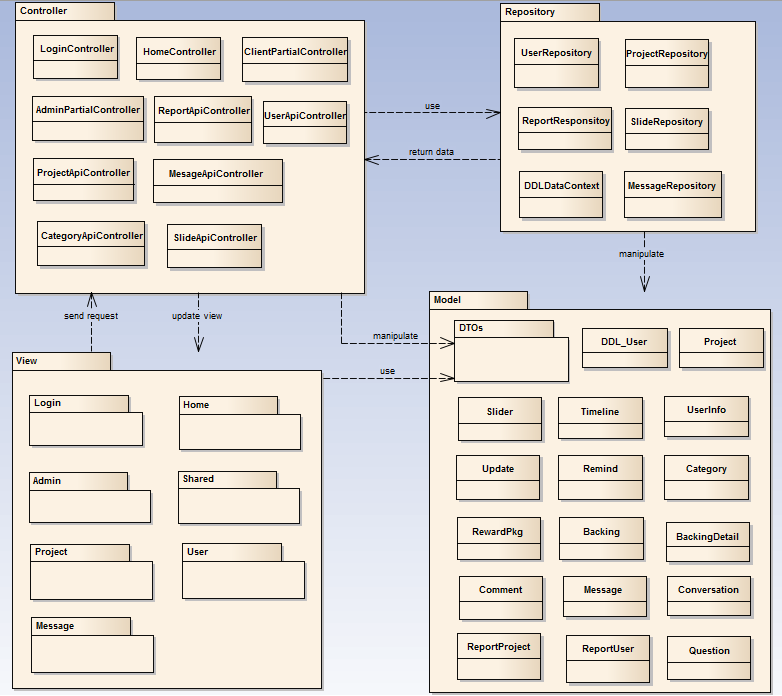
## Definitions, Acronyms and Abbreviations

|  |  |  |
| --- | --- | --- |
| Abbreviations | Description | Comment |
| DDL | Dandelion |  |
| FAQ | Frequently Asked Question |  |

1. Definitions, Acronyms and Abbreviations

# Package

## Package Diagram



1. Package Diagram

## Package Description

### Model

#### DDL\_User

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | UserID | int |  | private | User’s ID |
|  | UserName | String |  | private | User’s name |
|  | Password | String |  | private | User’s password |
|  | IsActive | bool | false | private | User’s active status (inactive, active) |
|  | CreatedDate | Datetime |  | private | User’s created date |
|  | LoginType | String | normal | private | User’s created type includes: normal, Facebook or both |
|  | LastLogin | Datetime |  | private | User’s last login |
|  | UserType | String | normal | private | User’s type (admin or nomal user) |
|  | IsVerify | bool | false | private | User’ email verify status |

1. DDL\_User model

#### Userinfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | UserID | int |  | private | Person’s ID |
|  | FullName | String |  | private | Person’s full name |
|  | ProfileImage | String |  | private | Person’s profile image |
|  | Biography | String |  | private | Person’s biography |
|  | Address | String |  | private | Person’s address |
|  | Gender | String | male | private | Person’s gender |
|  | PhoneNumber | String |  | private | Person’s phone number |
|  | DateOfBirth | Datetime |  | private | Person’s date of birth |
|  | Website | String |  | private | Person’s website |
|  | FacebookURL | String |  | private | Person’s facebook link |

1. UserInfo model

#### Project

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | ProjectID | int |  | private | Project’s ID |
|  | ProjectCode | String |  | private | Project’s code with fixed format |
|  | CategoryID | int |  | private | Project’s category |
|  | CreatorID | int |  | private | Project’s UserID who created project |
|  | ProjectTitle | String |  | private | Project’s title |
|  | Risk | String |  | private | Project’s risk |
|  | ImageURL | String |  | private | Project’s image link |
|  | SubDescription | String |  | private | Project’s sub description |
|  | Location | String |  | private | Project’s location created |
|  | IsExpired | bool |  | private | Is Project’s expired |
|  | CurrentFunded | demical |  | private | Project’s funded status |
|  | IsFunded | bool |  | private | Is Project’s funded |
|  | CreatedDate | datetime |  | private | Project’s createdDate |
|  | ExpiredDate | datetime |  | private | Project’s expired date |
|  | FundingGoal | decimal |  | private | Project’s funding goal |
|  | Description | String |  | private | Project’s description |
|  | LinkVideo | String |  | private | Project’s video link |
|  | Story | String |  | private | Project’s story |
|  | PopularPoint | int | 0 | private | Project’s popular point |
|  | Status | String | draft | private | Project’s status ( draft, pending, approved, suspended) |

1. Project model

#### Question Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | QuestionID | Int |  | private | question’s ID |
|  | ProjectID | Int |  | private | question’s project id |
|  | Question | String |  | private | question’s question |
|  | Answer | String |  | private | question’s answer |
|  | CreatedDate | Datetime |  | private | question’s created date |

1. Question Model

#### Category model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | CategoryID | int |  | private | Category’s ID |
|  | Name | String |  | private | Category’s name |
|  | IsActive | bool | false | private | Category’s active status |
|  | Description | String |  | private | Category’s description |

1. Category Model

#### UpdateLog Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | UpdateID | int |  | private | Update’s ID |
|  | ProjectID | Int |  | private | Update’s project id |
|  | Title | String |  | private | Update’s title |
|  | Description | String |  | private | Update’s description |
|  | CreatedDate | datetime |  | private | Update’s created date |

1. Update Model

#### Timeline Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | TimelineID | int |  | public | Timeline’s ID |
|  | ProjectID | int |  | public | Timeline’s project id |
|  | Title | String |  | public | Timeline’s title |
|  | Description | String |  | public | Timeline’s description |
|  | DueDate | datetime |  | public | Timeline’s due date |

1. Timeline Model

#### ReportProject Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | ReportID | int |  | private | Report ’s ID |
|  | ProjectID | int |  | private | Report ’s project id |
|  | UserID | int |  | private | Report ’s user id, who report project |
|  | Subject | String |  | private | Report ’s subject |
|  | ReportContent | String |  | private | Report ’s content |
|  | ReportDate | datetime |  | private | Report ’s report date |
|  | Status | String | new | private | Report’s status (new, viewed, done) |

1. ReportProject Model

#### Remind Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | RemindID | int |  | private | Remind’s ID |
|  | ProjectID | int |  | private | Remind’s project id |
|  | UserID | int |  | private | Remind’s user id |

1. Remind Model

#### Backing Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | BackingID | int |  | private | Back’s ID |
|  | UserID | int |  | private | Back’s user id |
|  | ProjectID | int |  | private | Back’s project id |
|  | BackedDate | Datetime |  | private | Back’s date |
|  | Description | String |  | private | Back’s description |
|  | IsPublic | bool | true | private | Is back public |

1. Backing Model

#### BackingDetail Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | BackingID | int |  | private | Backing’s ID |
|  | BackerName | string |  | private | Name of backer |
|  | RewardPkgID | int |  | private | Identify number of reward package |
|  | PledgedAmount | decimal | 0 | private | total pledged amount |
|  | Quantity | int | 1 | private | quantity of reward |
|  | Description | string |  | private | Backing’s description |
|  | Address | string |  | private | Backer’s address |
|  | PhoneNumber | string |  | private | Backer’s phone number |
|  | Email | string |  | private | Backer’s email |

1. BackingDetail Model

#### Comment Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | CmtID | int |  | private | Comment’s ID |
|  | UserID | int |  | private | Comment’s user id |
|  | ProjectID | int |  | private | Comment’s project id |
|  | CmtContent | String |  | private | Comment’s content |
|  | CmtDate | Datetime |  | private | Comment’s date |
|  | IsHide | bool | false | private | Is Comment’s hide |
|  | UpdatedDate | Datetime |  | private | Comment;’s updated datetime |
|  | IsEdited | bool | false | private | Is comment edited |

1. Comment Model

#### ReportUser Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | ReportID | int |  | private | Report’s ID |
|  | ReportUserID | int |  | private | Report’s report user ID |
|  | ReportedUserID | int |  | private | Report’s reported user ID |
|  | Status | String |  | private | Report’s status (new, viewed, done) |
|  | Subject | String |  | private | Report’s Subject |
|  | ReportContent | String |  | private | Report’s content |
|  | ReportDate | datetime |  | private | Report’s date |

1. ReportUser Model

#### Slide Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | SlideID | int |  | private | Slide’s ID |
|  | SlideTitle | String |  | private | Slide’s title |
|  | Order | int |  | private | Slide’s order |
|  | Description | String |  | private | Slide’s description |
|  | ImageLink | String |  | private | Slide’s image link |
|  | VideoUrl | String |  | private | Slide’s video |
|  | IsActive | bool | false | private | Slide’s isActive status |
|  | SliderURL | String |  | private | Slide’s slide URL |
|  | ButtonColor | String | green | private | Slide’s button color |
|  | CreatedDate | datetime |  | private | Slide’s created date |
|  | TextColor | string | light | private | slide’s text color |
|  | ButtonText | String |  | private | Slide’s button text |

1. Slide Model

#### Conversation Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | ConversationID | int |  | private | Conversation’s ID |
|  | CreatorID | int |  | private | Conversation’s creator id |
|  | ReceiverID | int |  | private | Conversation’s receiver |
|  | Subject | String |  | private | Conversation’s subject |
|  | CreatedDate | Datetime |  | private | Conversation’s created date |
|  | UpdatedDate | Datetime |  | private | Conversation’s update date |
|  | DeleteStatus | String | no | private | Conversation’s user delete status |
|  | ViewStatus | String | creator | private | Conversation’s user view status |

1. Conversation Model

#### Message Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | MessageID | int |  | private | Message’s ID |
|  | ConversationID | int |  | private | Message’s conversation id |
|  | UserID | int |  | private | Message’s user id |
|  | MessageContent | String |  | private | Message’s content |
|  | SentTime | Datetime |  | private | Message’s sent time |

1. Message Model

#### RewardPkg Model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Field Name** | **Type** | **Default** | **Note** | **Description** |
|  | RewardID | int |  | private | Reward’s ID |
|  | ProjectID | int |  | private | Reward’s project id |
|  | LimitedQuantity | int |  | private | Reward’s limited quantity |
|  | Type | String |  | private | Reward’s type (noReward, limited, unlimited) |
|  | Description | String |  | private | Reward’s description |
|  | EstimatedDeliveryDate | datetime |  | public | Reward’s estimated delivery date |
|  | IsHide | bool | true | public | Is Reward hide |

1. Reward package table

### DTOs

|  |  |  |
| --- | --- | --- |
| **No** | **Class Name** | **Description** |
|  | AdminBackingListDTO | Object to transfer backing list data |
|  | AdminBakingFullInforDTO | Object to transfer backing list data for export |
|  | AdminCategoryDTO | Object to transfer category data |
|  | AdminDashboardInfoDTO | Object to transfer information data for admin dashboard |
|  | AdminProjectGeneralInfoDTO | Object to transfer project dashboard information data |
|  | AdminProjectStatisticDTO | Object to transfer project statistic data |
|  | AdminUserBackedListDTO | Object to transfer baking list data of a user |
|  | AdminUserBackingDetailDTO | Object to transfer backing detail data |
|  | AdminUserCreatedListDTO | Object to transfer list created project data of a user. |
|  | AdminUserDashboardDTO | Object to transfer user dashboard information data |
|  | AdminUserListDTO | Object to transfer data of list user for admin page. |
|  | AdminUserProfileDTO | Object to transfer profile information data of a user |
|  | BackingDTO | Object to transfer backing data |
|  | BackingInfoDTO | Object to transfer backing information data |
|  | CategoryDTO | Object to transfer category data |
|  | CategoryProjectCountDTO | Object to transfer category with project count data |
|  | CommentDTO | Object to transfer comment data |
|  | ConversationBasicDTO | Object to transfer conversation basic data |
|  | ConversationDetailDTO | Object to transfer detail data of a conversation |
|  | EditPasswordDTO | Object to transfer password data for change password functions |
|  | HttpMessageDTO | Object to transfer data for Web Api |
|  | MessageDTO | Object to transfer message data |
|  | NewMessageDTO | Object to transfer new message data |
|  | NewMessageNumberDTO | Object to transfer data number of new message |
|  | ProjectBackDTO | Object to transfer backing data of project |
|  | ProjectBasicListDTO | Object to transfer list basic information of projects |
|  | ProjectBasicViewDTO | Object to transfer basic information of a project |
|  | ProjectCreateDTO | Object to transfer project information for create project page |
|  | ProjectDetailDTO | Object to transfer detail data of a project |
|  | ProjectEditDTO | Object to transfer edited data of a project |
|  | ProjectInfoBackDTO | Object to transfer backing information data |
|  | ProjectStoryDTO | Object to transfer story information data of a project |
|  | QuestionDTO | Object to transfer question & answer data |
|  | ReplyDTO | Object to transfer reply message data |
|  | ReportProjectDTO | Object to transfer report project data |
|  | ReportUserDTO | Object to transfer report user data |
|  | RewardPkgDTO | Object to transfer reward package data |
|  | SlideDTO | Object to transfer slide data |
|  | UpdateLogDTO | Object to transfer update log data |
|  | UserBackInforDTO | Object to transfer backing information data of a user |
|  | UserEditInfoDTO | Object to transfer edited profile information data of a user |
|  | UserLoginDTO | Object to transfer login data |
|  | UserNameDTO | Object to transfer username and full name data of user |
|  | UserPublicInfoDTO | Object to transfer public information data of a user |
|  | UserRegisterDTO | Object to transfer registered information data |

### View

Contain many .cshtml files to display user interface.

### Repository

#### UserRepository

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | GetBackingFullInforListForExport |  | List<Object> | Get backing list for export |
|  | GetUserTop | string | Dictionary<Object> | Get top 10 user |
|  | GenerateNewPassword |  | string | Generate new password from random string |
|  | GenerateResetCode |  | string | Generate reset password code from random string |
|  | GenerateRandomString | int | string | Generate random string |
|  | GetByUserNameOrEmail | string, string | DDL\_User | Get user by username, email and password |
|  | GetByUserNameOrEmail | string | DDL\_User | Get user by username or email |
|  | GetBasicInfo | string | UserBasicInfoDTO | get basic information of a user |
|  | InsertUser | DDL\_User | DDL\_User | Insert user into DB |
|  | RegisterFacebook | dynamic | DDL\_User | register new user from facebook information |
|  | Register | UserRegisterDTO | DDL\_User | Register new user by normal way |
|  | VerifyAccount | string, string |  | Verify account by code |
|  | UpdateUser | DDL\_User | DDL\_User | Update information of a user |
|  | SendCodeResetPassword | string | bool | Update reset code into DB |
|  | ResetPassword | string, string | bool | Reset password of a user |
|  | GetListUserName | string | List<UserNameDTO> | Get all username of user in system. |
|  | GetUserPublicInfo | string | UserPublicInfoDTO | Get public information of a user. |
|  | GetUserEditInfo | string | UserEditInfoDTO | Get information of a user to display in edit profile page. |
|  | EditUserInfo | UserEditInfoDTO,  string |  | Edit profile of a user. |
|  | GetUserPassword | string | EditPasswordDTO | Get password of a user. |
|  | ChangePassword | string,  EditPasswordDTO | bool | Change password of a user. |
|  | GetUserListForAdmin |  | AdminUserListDTO | Get list user for admin page. |
|  | ChangeUserStatus | string |  | Active or deactive a user |
|  | GetUserDashboardForAdmin |  | AdminUserDashboardDTO | Get user dash board for admin page. |
|  | AdminGetTopBacker |  | List<TopBackerDTO> | Get top 10 backer of dandelion. |
|  | AdminGetRecentUser |  | List<RecentUserDTO> | Get last login user. |

1. User Repository

#### ProjectRepository

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | GetStatisticsInfor |  | Dictionary<string, int> | Get statistic information |
|  | GetProjectTop | string | List<ProjectBasicViewDTO> | Get list top 10 project |
|  | SearchCount | string,  string | int |  |
|  | GetProject | int, int, string, string, string, string bool, string | List<ProjectBasicViewDTO> | Get project by options |
|  | orderBy | string,  IQueryable<ProjectBasicViewDTO> | IQueryable<ProjectBasicViewDTO> | Order list of project by options |
|  | GetProjectByCategory |  | List<ProjectBasicViewDTO> | get project by category |
|  | GetTotalFund |  | List<ProjectBasicViewDTO> | Get total funded of system |
|  | CreatProject | ProjectCreateDTO,  string | string | Create a draft project |
|  | EditProjectBasic | ProjectEditDTO, string | ProjectEditDTO | edit basic information of a project |
|  | EditProjectStory | ProjectStoryDTO | ProjectStoryDTO | edit advanced information of a project |
|  | GetProjectBasic | string, string | ProjectEditDTO | Get basic information of a project |
|  | GetProjectStory | int | ProjectStoryDTO | Get advanced information of a project |
|  | SubmitProject | ProjectEditDTO | List<string> | Submit a project for review |
|  | GetBackProjectInfo | string | ProjectInfoBackDTO | Get baking information of a project |
|  | BackProject | ProjectBackDTO | string | Back project |
|  | CaculateProjectPoint | string,  int |  | Calculate project point |
|  | AdminGetBackingDetail | int | ProjectBackDTO | Get detail information of a backing |
|  | AdminProjectGeneralInfo | AdminProjectGeneralInfoDTO |  | Get project dashboard information |
|  | GetPendingProjectList | List<ProjectBasicListDTO> |  | Get list pending project |
|  | GetProjectList | List<ProjectBasicListDTO> |  | Get project list |
|  | AdminChangeProjectStatus | ProjectEditDTO,  string | bool | Approve/ Reject a project |
|  | AdminDashboardInfo |  | AdminDashboardInfoDTO | Get dashboard information |
|  | AdminGetTopProjectList |  | List<ProjectBasicListDTO> | Get top 10 project |
|  | AdminProjectStatistic | int | AdminProjectStatisticDTO | Get project statistic information |
|  | AdminStatisticTable | string | List<AdminDashboardInfoDTO> | Get project statistic information |
|  | AdminGetProjectDetail | string | ProjectDetailDTO | Get project detail information |
|  | GetProjectByCode | string,  string | ProjectDetailDTO | Get project detail information by code. |
|  | GetListComment | string,  datetime,  string | List<CommentDTO> | Get list comment of a project |
|  | GetListUpdateLog | string, string | List<UpdateLogDTO> | Get list update log of a project |
|  | GetBackedProjectHistory | string | List<ProjectBasicViewDTO> | Get backed project history information |
|  | BackingInfo | string | List<BackingInfoDTO> | Get backing information |
|  | GetBackedProject | string | List<ProjectBasicViewDTO> | Get list backed project |
|  | GetStarredProject | string | List<ProjectBasicViewDTO> | Get list reminded project |
|  | GetCreatedProject | string | List<ProjectBasicViewDTO> | Get list created project |
|  | DeleteProjectReminded | int | bool | Delete remind from a project |
|  | DeleteProjectDraft | int | bool | delete a draft project |
|  | RemindProject | string, string | bool | remind a project |
|  | GetListBacker | string | BackingDTO | Get list backing of a project |
|  | GetComments | int, bool, datetime | List<CommentDTO> | Get list comment of a project |
|  | AddComment | string, CommentDTO, datetime | List<CommentDTO> | Add a comment |
|  | ShowHideComment | int, string | CommentDTO | Show hide comment for creator |
|  | EditComment | int, string, string | CommentDTO | Edit a comment |
|  | DeleteComment | int, string | bool | Delete a comment |

1. Project Repository

#### ReportRepository

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | ReportProject | string, string, string |  | Use to request login to Facebook |
|  | ReportUser | string, string, string |  | Function callback, get data from Facebook |
|  | GetReportProjects |  | List<ReportProjectDTO> | Set user’s password to a random string and send to email of user |
|  | GetReportUsers |  | List<ReportUserDTO> |  |
|  | changeReportProjectStatus | int¸ string |  |  |
|  | changeReportUserStatus | int, string |  |  |

1. Report Repository

#### MessageRepository

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | GetListConversation | string | List<ConversationBasicDTO> | List list converstion of a user. |
|  | GetListSentConversation | string | List<ConversationBasicDTO> | Get list sent conversation of a user. |
|  | GetListReceivedConversation | string | List<ConversationBasicDTO> | Get list receiver conversation of a user |
|  | GetConveration | int, string | ConversationDetailDTO | Get conversation detail |
|  | ReplyMessage | ReplyDTO,  string | MessageDTO | Reply a conversation |
|  | Delete | int, string | bool | Delete a conversation |
|  | DeleteMessageList | int[], string | bool | Delete a list conversation |

1. Message Repository

#### SlideRepository

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | GetSlides |  | List<SlideDTO> | Get list slide. |
|  | CreateSlide | SlideDTO | SlideDTO | create new slide |
|  | EditSlide | SlideDTO | SlideDTO | edit a slide |
|  | DeleteSlide | int | bool | delete a slide |
|  | ChangeSlideStatus | int | SlideDTO | active or deactive a slide |
|  | ChangeOrder | int, string | List<SlideDTO> | chang slide’s order |

1. Slide Repository

#### CategoryRepository

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | GetCategoryProjectCount |  | List<CategoryProjectCountDTO> | Get list category with project count |
|  | GetCategoryProjectStatistic |  | List<CategoryProjectCountDTO> | get list categories for statistic page |
|  | GetAllCategories |  | List<CategoryProjectCountDTO> | get all categories |
|  | GetCategoriesForAdmin |  | List<AdminCategoryDTO> | Get litst categories for admin page |
|  | GetCategories |  | List<CategoryDTO> | Get list categories |
|  | ChangeCategoryStatus | int | AdminCategoryDTO | Active/deactive category |
|  | AddNewCategory | AdminCategoryDTO | AdminCategoryDTO | add new category |
|  | EditCategory | AdminCategoryDTO | AdminCategoryDTO | edit a category |

1. Category Repository

### Controller

#### LoginController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | AuthenFacebook |  | ActionResult | Use to request login to Facebook |
|  | FacebookCallback | string | ActionResult | Function callback, get data from Facebook |
|  | ForgotPassword |  | ActionResult | Set user’s password to a random string and send to email of user |
|  | Login | string | ActionResult | Return login page for user |
|  | Login | UserLoginDTO,  string | ActionResult | Receive request login with form data included user name and password. |
|  | Logout |  | ActionResult | Logout current user from DDL. |
|  | AdminLogin | string |  | Return login page for admin. |
|  | AdminLogin | UserLoginDTO, string | ActionResult | Receive request login with form data included user name and password. |
|  | AdminLogout |  | ActionResult | Logout for admin page. |
|  | Active | string, string | ActionResult | Verify email account, active new account with code. |

1. Login Controller

#### HomeController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | Index |  | ActionResult | Display main page of DDL client. |
|  | AdminIndex |  | ActionResult | Display main page of DDL admin. |
|  | Error |  | ActionResult | Display error page |

1. Home Controller

#### ClientPartialController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | Home |  | ActionResult | Display home page |
|  | Register |  | ActionResult | Display Register page |
|  | RegisterSuccess |  | ActionResult | Display register successful page |
|  | ForgotPassword |  | ActionResult | Display ForgotPassword page |
|  | Discover |  | ActionResult | Display discovery page |
|  | Message |  | ActionResult | Display message list page |
|  | MessageDetail |  | ActionResult | Display message detail page |
|  | CreateProject |  | ActionResult | Display create project page |
|  | ProjectDetail |  | ActionResult | Display project detail page |
|  | EditProject |  | ActionResult | Display Edit Project page |
|  | Statistics |  | ActionResult | Display Statistics page |
|  | Search |  | ActionResult | Display Search result page page |
|  | BackProject |  | ActionResult | Display first Backing page with list rewards of project. |
|  | PaymentProject |  | ActionResult | Display second Backing page to input backing information. |
|  | PublicProfile |  | ActionResult | Display Public Profile page |
|  | EditProfile |  | ActionResult | Display Edit Profile page |
|  | EditPassword |  | ActionResult | Display Edit Password page |
|  | Message |  | ActionResult | Display Message page |
|  | BackedProject |  | ActionResult | Display Backed Project page |
|  | BackedProjectHistory |  | ActionResult | Display backed history page |
|  | CreatedProject |  | ActionResult | Display Created Project page |
|  | StarredProject |  | ActionResult | Display Reminded Project page |
|  | ListBacker |  | ActionResult | Display page with list backing of a project. |
|  | Error |  | ActionResult | Display Error page. |
|  | NotFound |  | ActionResult | Display 404 not found page. |

1. ClientPartialController

#### AdminPartialController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | Dashboard |  | ActionResult | Display dashboard page. |
|  | ProjectDashboard |  | ActionResult | Display Project Dashboard page |
|  | ProjectList |  | ActionResult | Display Project List page |
|  | ProjectDetail |  | ActionResult | Display project detail page |
|  | Slide |  | ActionResult | Display slide page. |
|  | MessageList |  | ActionRes | Display message list for admin. |
|  | MessageDetail |  |  | Display message detail for admin. |
|  | UserDashboard |  | ActionResult | Display User Dashboard project page |
|  | UserList |  | ActionResult | Display User List page |
|  | UserProfile |  | ActionResult | Display profile of a user page |
|  | BackingList |  |  | Display backing list page. |
|  | Category |  |  | Display category page. |
|  | ReportProject |  |  | Display report user page. |
|  | ReportUser |  |  | Display report project page |
|  | NotFound |  | ActionResult | Display Error page. |
|  | Error |  | ActionResult | Display 404 not found page. |

1. AdminPartialController

#### UserApiController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | Register | UserRegisterDTO | IHttpActionResult | Create new user api |
|  | ResetPassword | string | IHttpActionResult | Reset password to random string for a user and send to user’s email. |
|  | GetListUserName | String | IHttpActionResult | Api to get list username which matched with input string.  This function is used by message page. |
|  | CheckLoginStatus |  | IHttpActionResult | Check login status of current user. |
|  | GetPublicInfo | string | IHttpActionResult | Get public information of a user. |
|  | GetUserInfoEdit |  | IHttpActionResult | Get personal information of current user. |
|  | EditUserInfo |  | IHttpActionResult | Api to edit information of current user. |
|  | GetUserPasswordEdit |  | IHttpActionResult | Get password of current user. |
|  | ChangePassword | EditPasswordDTO | IHttpActionResult | Change password of current user. |
|  | GetUserBackedProjectForAdmin | string | IHttpActionResult | Get list backed project of a user. |
|  | GetUserCreatedProjectForAdmin | string | IHttpActionResult | Get list created project of a user. |
|  | GetUserDashboardForAdmin |  | IHttpActionResult |  |
|  | GetUserListForAdmin |  | IHttpActionResult | Get list user for admin. |
|  | GetUserProfileForAdmin | string | IHttpActionResult | Get profile of a user for admin page. |
|  | ChangeUserStatus | string | IHttpActionResult | Set active or deactive a user. |
|  | GetUserTop |  | IHttpActionResult | Get top user for statistic |
|  | AdminGetTopBacker |  | IHttpActionResult | Get top backer for admin |
|  | AdminGetRecentUser |  | IHttpActionResult | Get last 10 logged user. |
|  | AdminGetRecentBacking |  | IHttpActionResult | Get last 10 backing |

Table -21: User API Controller

#### ProjectApiController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | CreateProject | ProjectCreateDTO | IHttpActionResult | Create a new project |
|  | EditProjectBasic | ProjectEditDTO | IHttpActionResult | Edit basic information of a draft project |
|  | EditProjectStory | ProjectStoryDTO | IHttpActionResult | Edit advanced information of a project |
|  | GetProjectBasic | int | IHttpActionResult | Get basic information of a project |
|  | GetProjectStory | int | IHttpActionResult | Get advanced information of a project. |
|  | GetRewardPkg | int | IHttpActionResult | Get list reward package of a project |
|  | GetRewardPkgByCode | String | IHttpActionResult | Get list reward package of a project by code. |
|  | CreateRewardPkg | int,  RewardPkgDTO | IHttpActionResult | Create new reward package for a project |
|  | EditRewardPkg | RewardPkgDTO | IHttpActionResult | Create a reward package of project |
|  | DeleteRewardPkg | Int | IHttpActionResult | Delete a reward package |
|  | GetUpdateLog | int | IHttpActionResult | Get list update log of a project |
|  | CreateUpdateLog | UpdateLogDTO | IHttpActionResult | Add an update log for a project |
|  | EditUpdateLog | UpdateLogDTO | IHttpActionResult | Edit an update log of project. |
|  | DeleteUpdateLog | Int | IHttpActionResult | Delete an update log of project. |
|  | GetQuestion | Int | IHttpActionResult | Get list question and answer of a project |
|  | CreateQuestion | QuestionDTO | IHttpActionResult | Create a Q&A |
|  | EditQuestion | QuestionDTO | IHttpActionResult | Edit a Q&A |
|  | DeleteQuestion | Int | IHttpActionResult | Delete a Q&A |
|  | SubmitProject | Int | IHttpActionResult | Submit project for admin to review |
|  | BackProject | ProjectBackDTO | IHttpActionResult | Back for a project |
|  | GetBackProjectInfo | string | IHttpActionResult | Get |
|  | GetPendingProjectList |  | IHttpActionResult | Get list pending, rejected project |
|  | AdminGetProjectGeneralInfo |  | IHttpActionResult | Get dashboard project information |
|  | AdminGetProjectList |  | IHttpActionResult | Get project list for admin |
|  | AdminGetProjectDetail | string | IHttpActionResult | Get project detail for admin |
|  | AdminGetProjectComment | string | IHttpActionResult | Get list comment of a project |
|  | AdminGetUpdateLogList | string | IHttpActionResult | Get update log list of a project |
|  | AdminChangeProjectStatus | int | IHttpActionResult | Change project status |
|  | AdminGetListBacker | String | IHttpActionResult | Get list backing of a project. |
|  | AdminGetDashboardInfo |  | IHttpActionResult | Get dashboard information for admin. |
|  | AdminGetTopProjectList |  | IHttpActionResult | Get top 10 project success |
|  | AdminGetProjectStatistic | int | IHttpActionResult | Get statistic by year |
|  | AdminGetStatisticTable | Int | IHttpActionResult | Get statistic table by year |
|  | GetProjectTop | string | IHttpActionResult | Get top 10 project success by category |
|  | GetProject | int, int, string, string, string,  string, bool, string | IHttpActionResult | Get project with multi option |
|  | GetProjectByCategory |  | IHttpActionResult | Get project by category |
|  | GetProjectStatisticList |  | IHttpActionResult | Get project statistic |
|  | GetStatisticListForHome |  | IHttpActionResult | Get statistic for home page. |
|  | GetProjectDetail | string | IHttpActionResult | Get project detail by project code |
|  | GetCommentList | string, string | IHttpActionResult | Get list comment of a project |
|  | GetUpdateLogList | string | IHttpActionResult | Get list update log of a project |
|  | GetBackedProject |  | IHttpActionResult | Get list backed project of current user. |
|  | GetBackedProjectHistory |  | IHttpActionResult | Get backed history of current user. |
|  | GetStarredProject |  | IHttpActionResult | Get list reminded projects of current user. |
|  | GetCreatedProject |  | IHttpActionResult | Get list created projects of current user |
|  | DeleteProjectDraft | int | IHttpActionResult | Delete a draft project |
|  | DeleteProjectReminded | int | IHttpActionResult | Delete a reminded project |
|  | GetBackingInfo | string | IHttpActionResult | Get backing detail information |
|  | RemindProject | string | IHttpActionResult | Remind a project |
|  | GetListBacker | string | IHttpActionResult | Get backings list of a project |
|  | Comment | string,  CommentDTO,  string | IHttpActionResult | Add new comment to a project |
|  | ShowHideComment | int | IHttpActionResult | Set show/hide status of a comment |
|  | EditComment | int, string | IHttpActionResult | edit a comment |
|  | DeleteComment | int | IHttpActionResult | Delete a comment |

Table -22: Project API Controller

#### MessageApiController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | NewMessage | NewMessageDTO | IHttpActionResult | Create new message |
|  | GetListConversations |  | IHttpActionResult | Get list message of current user |
|  | GetListSentConversations |  | IHttpActionResult | Get list sent message of current user. |
|  | GetListReceivedConversations |  | IHttpActionResult | Get list received message of current user. |
|  | GetConversation | int | IHttpActionResult | Get message detail. |
|  | Reply | MessageDTO | IHttpActionResult | Reply to a message |
|  | DeleteMessage | int | IHttpActionResult | Delete a message |
|  | DeleteMessageList | int[] | IHttpActionResult | Delete a list of messages. |
|  | GetNumberNewMessage |  | IHttpActionResult | Get number new message of current user. |

Table -23: Message API Controller

#### SlideApiController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | GetSlides |  | IHttpActionResult | Get list active slides |
|  | GetSlidesForAdmin |  | IHttpActionResult | Get list slides for admin page. |
|  | CreateSlide | SlideDTO | IHttpActionResult | Create new slide |
|  | DeleteSlide | int | IHttpActionResult | Delete a slide |
|  | ChangeSlideStatus | int | IHttpActionResult | Active or deactive a slide. |
|  | EditSlide | SlideDTO | IHttpActionResult | Edit a slide information |
|  | ChangeOrder | int, string | IHttpActionResult | Change order of a slide. |

Table -23: Message API Controller

#### ReportApiController

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | GetReportProjects |  | IHttpActionResult | Get list project report for admin. |
|  | GetReportUsers |  | IHttpActionResult | Get list user report for admin. |
|  | changeReportProjectStatus | int, string | IHttpActionResult | Change status of a project report |
|  | ReportProject | string, string | IHttpActionResult | Report a project |
|  | changeReportUserStatus | int, string | IHttpActionResult | Change status of a user report |
|  | ReportUser | string, string | IHttpActionResult | Report a user |

Table -24: Report API Controller

#### CategoryApiController

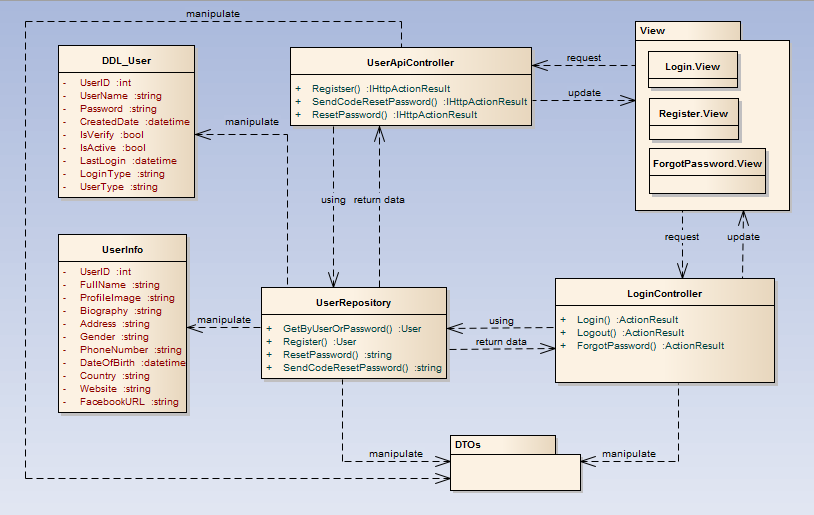
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Method | Parameter | Return | Description |
|  | listDataForStatistic |  | IHttpActionResult | Get list data for statistic page. |
|  | getAllCategories |  | IHttpActionResult | Get all active categories |
|  | GetCategoryProjectCount |  | IHttpActionResult | Get all active categories with project count. |
|  | GetCategoriesForCreate |  | IHttpActionResult | Get list category for create project page. |
|  | GetCategoriesForAdmin |  | IHttpActionResult | Get list categories for admin page. |
|  | ChangeCategoryStatus | int | IHttpActionResult | Active, deactive a category |
|  | AddNewCategory | CategoryDTO | IHttpActionResult | Add new category |
|  | EditCategory | CategoryDTO | IHttpActionResult | Edit information of a category |

Table -25: Category API Controller

# Function

## Common

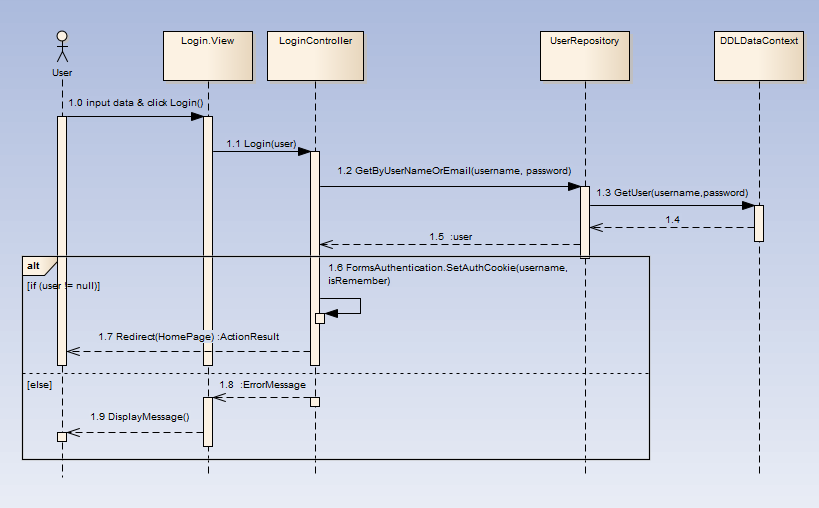
### Class diagram



1. Common functions class diagram

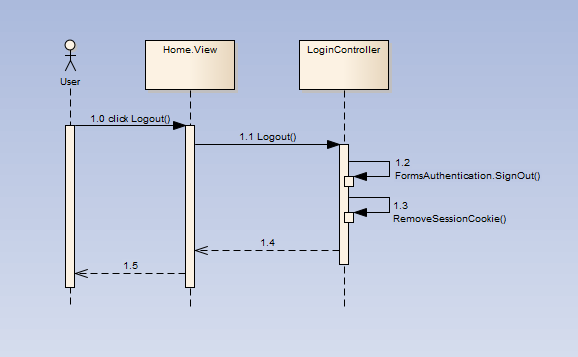
### Sequence diagram

#### Login



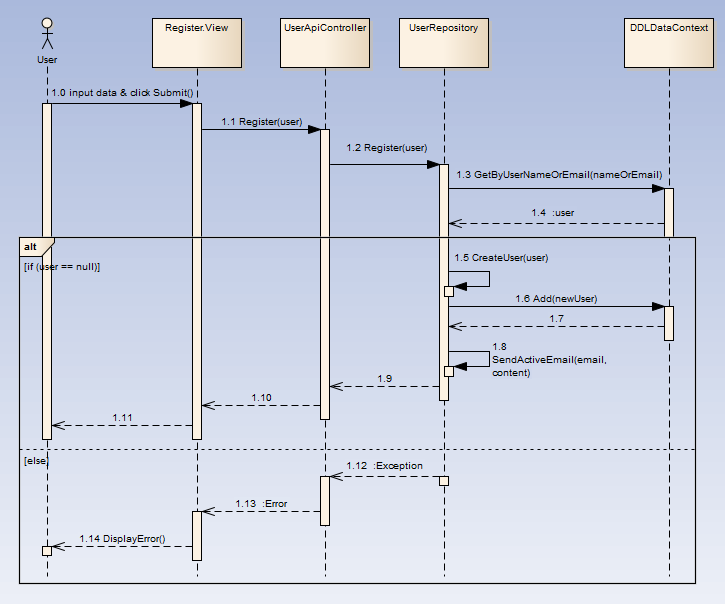
1. Login sequence diagram

#### Logout



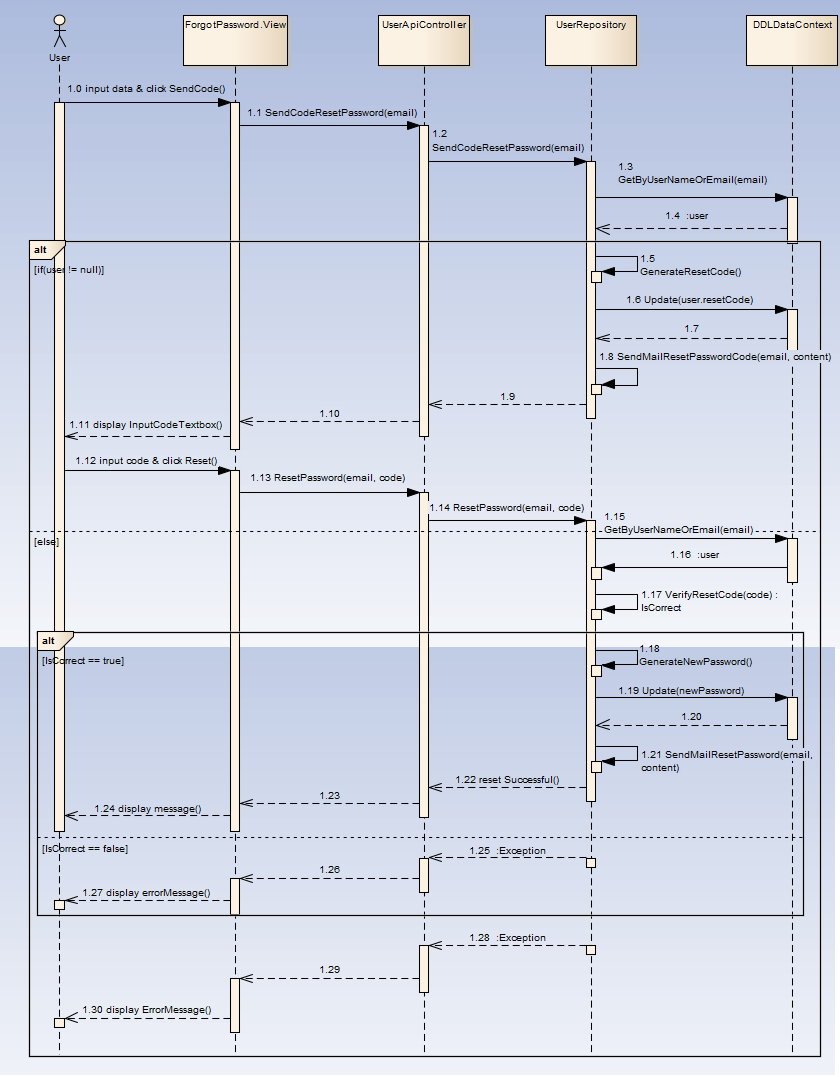
1. Logout sequence diagram

#### Register



1. Register sequence diagram

#### Forgot Password



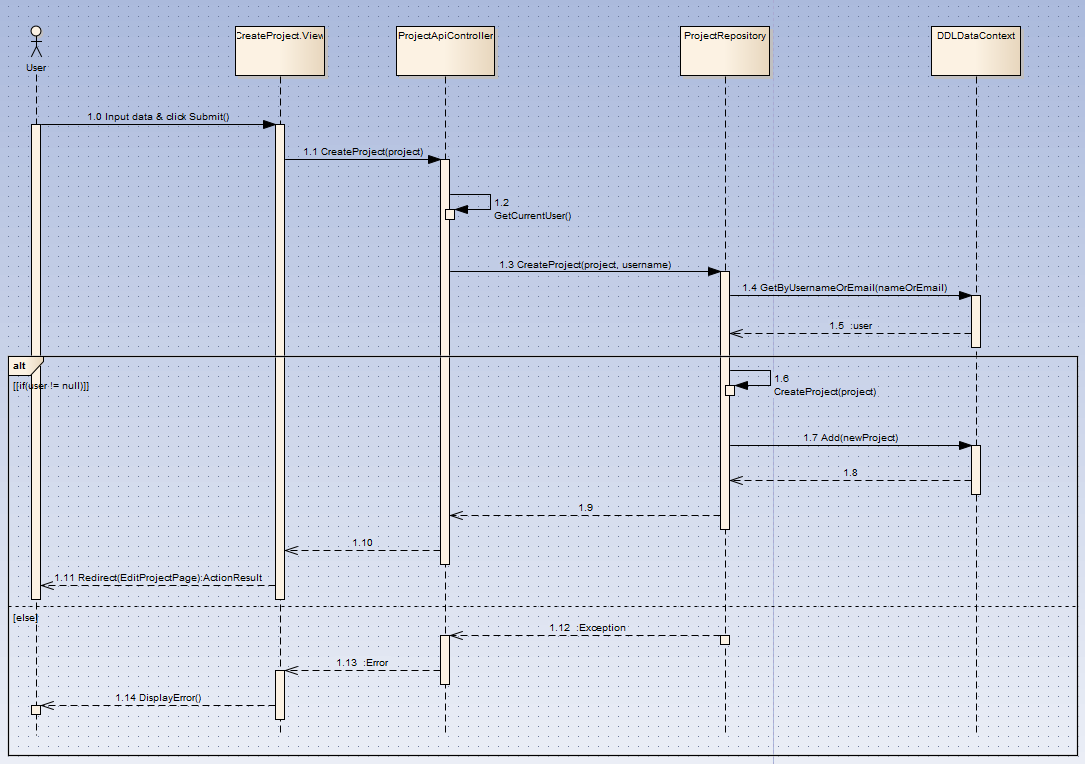
1. Forgot password sequence diagram

## Project

### Class diagram

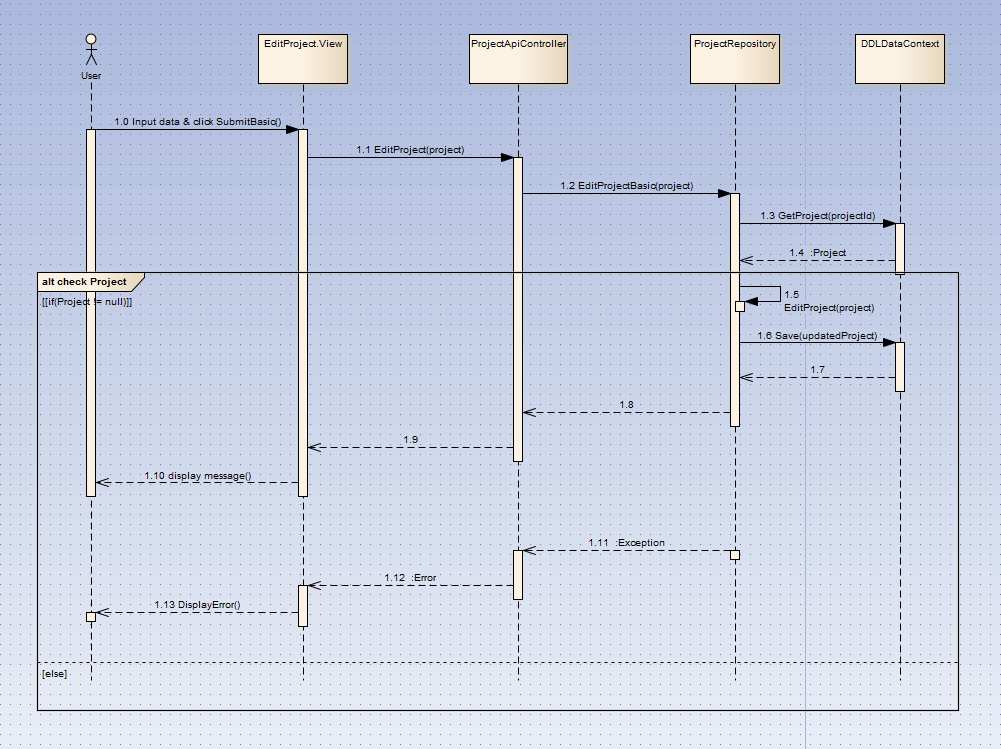
### Sequence diagram

#### Create project



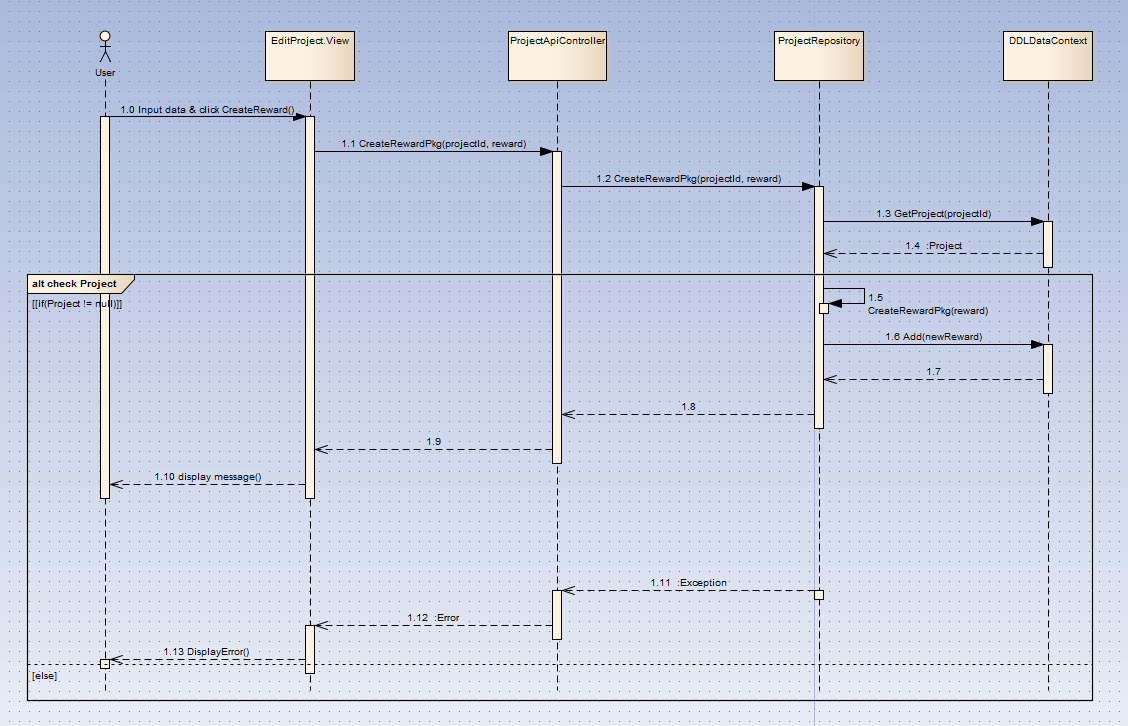
1. Create project sequence diagram

#### Edit project basic



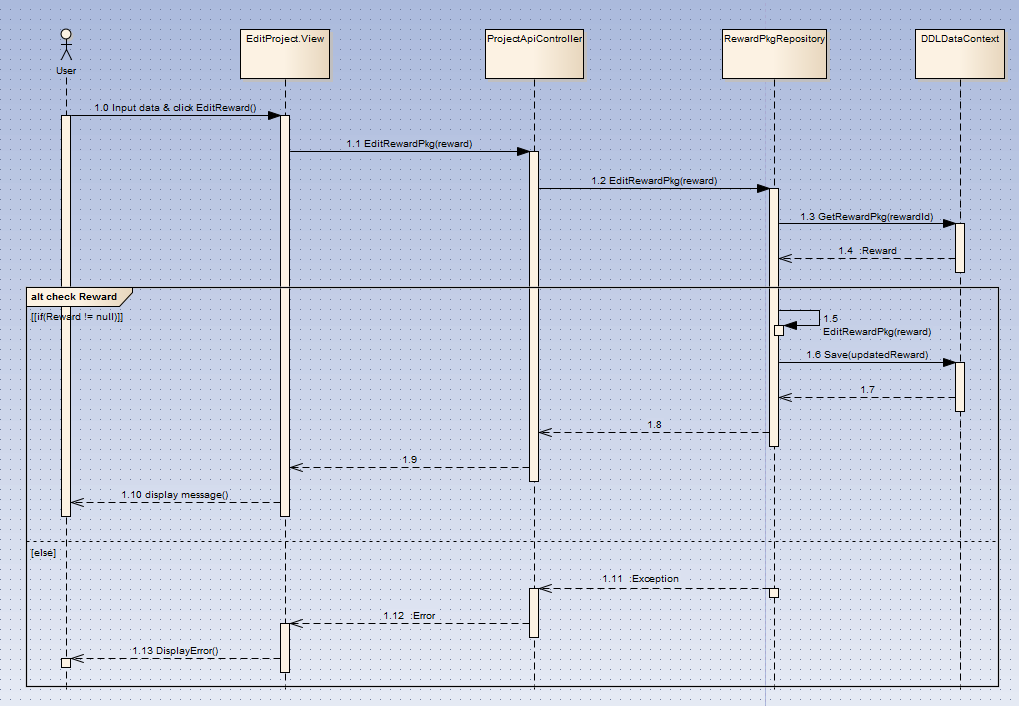
1. Edit project basic sequence diagram

#### Create reward packet



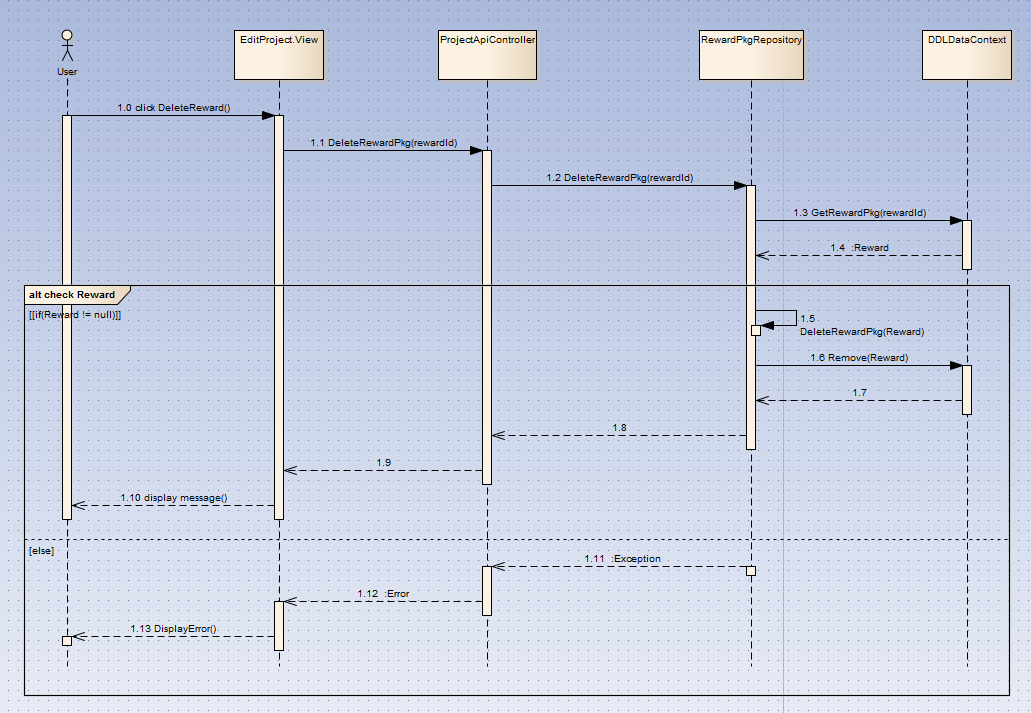
1. Create reward packet sequence diagram

#### Edit reward packet



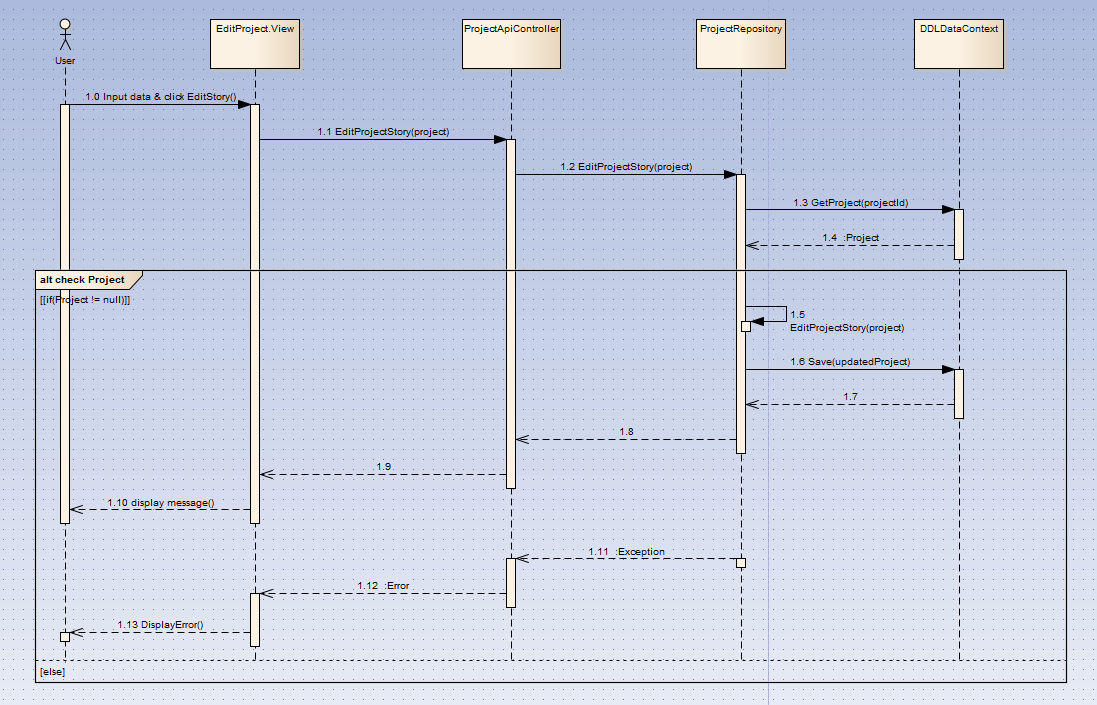
1. Edit reward packet sequence diagram

#### Delete reward packet



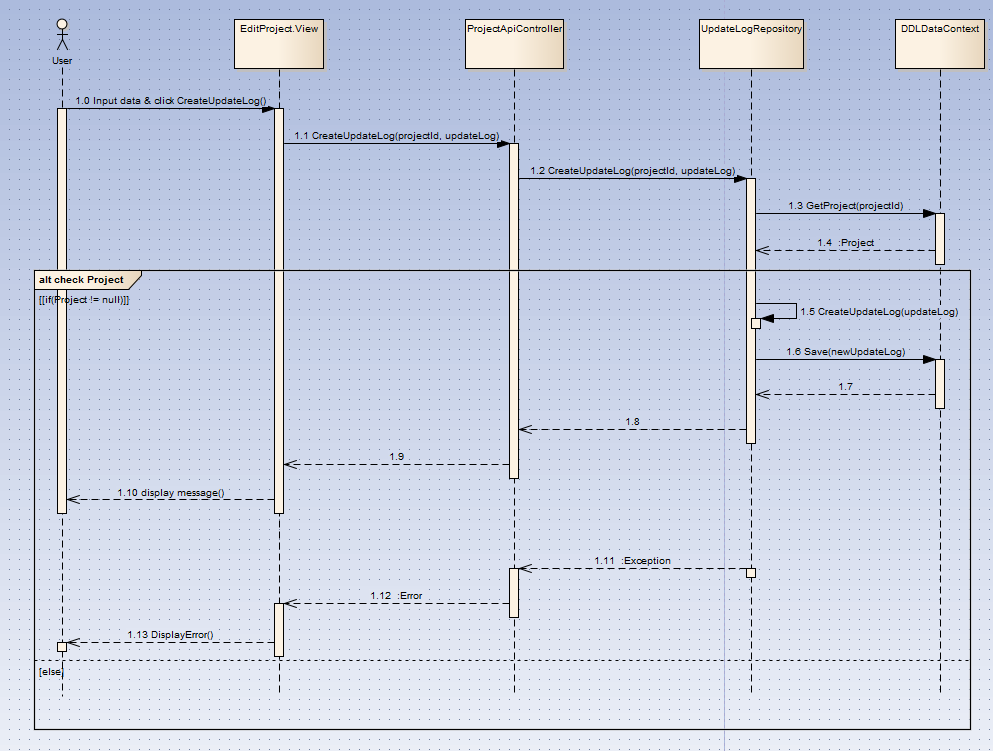
1. Delete reward packet sequence diagram

#### Edit project story



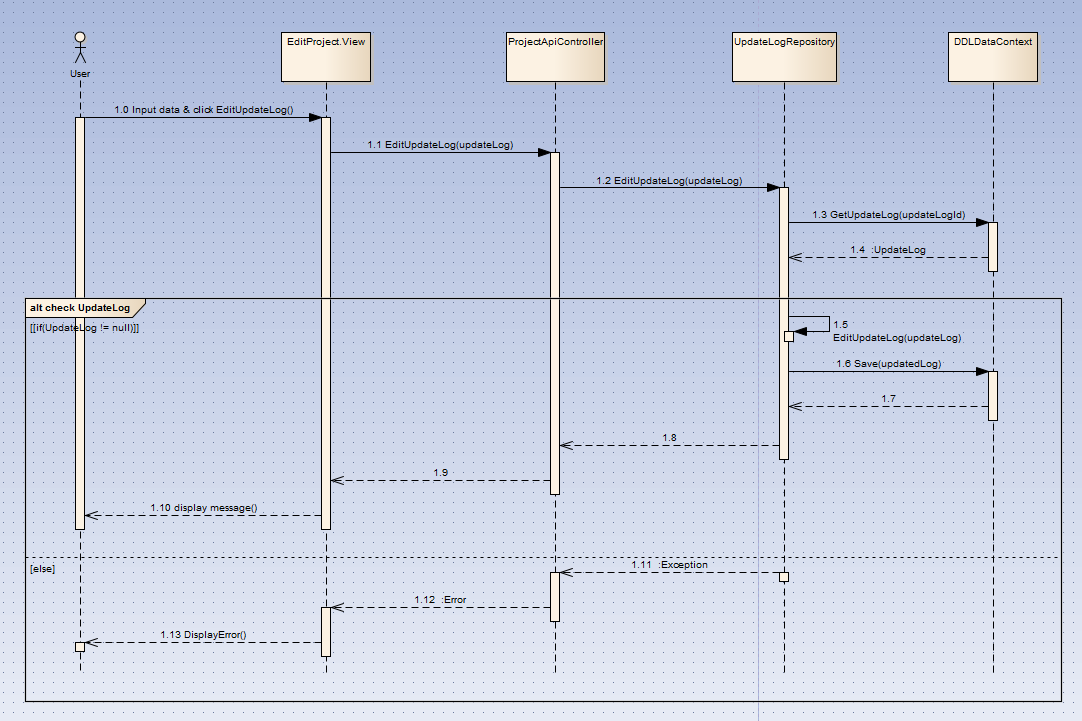
1. Edit project story sequence diagram

#### Create update log



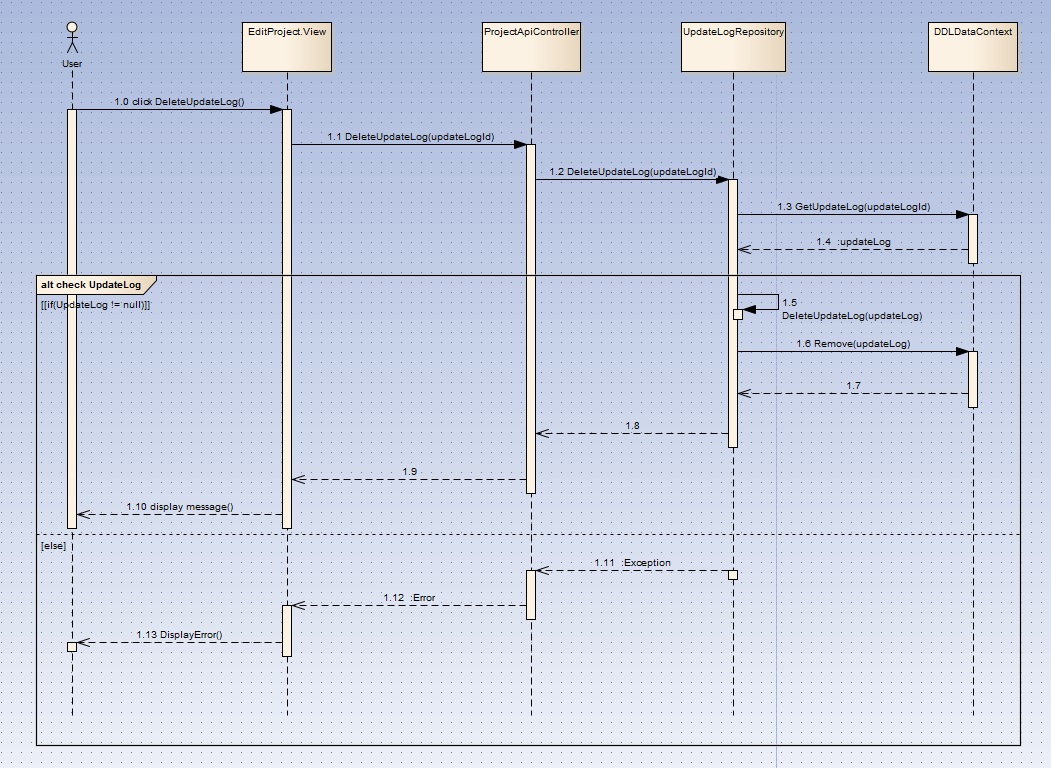
1. Create update log sequence diagram

#### Edit update log



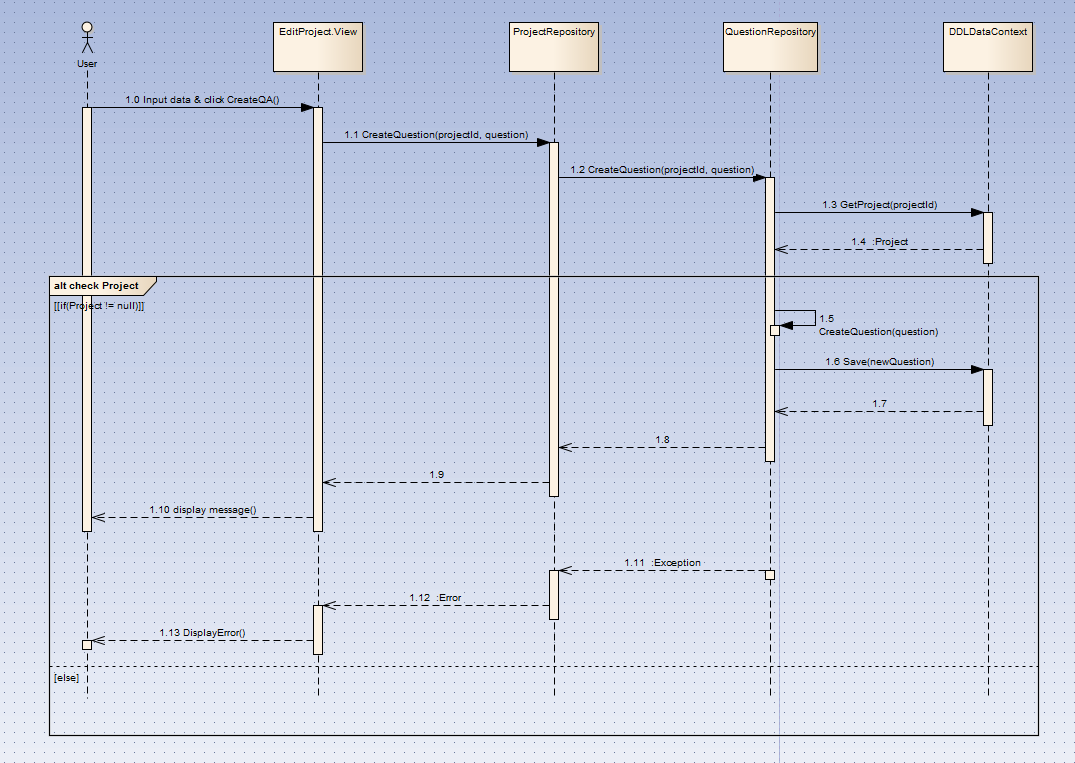
1. Edit update log sequence diagram

#### Delete update log



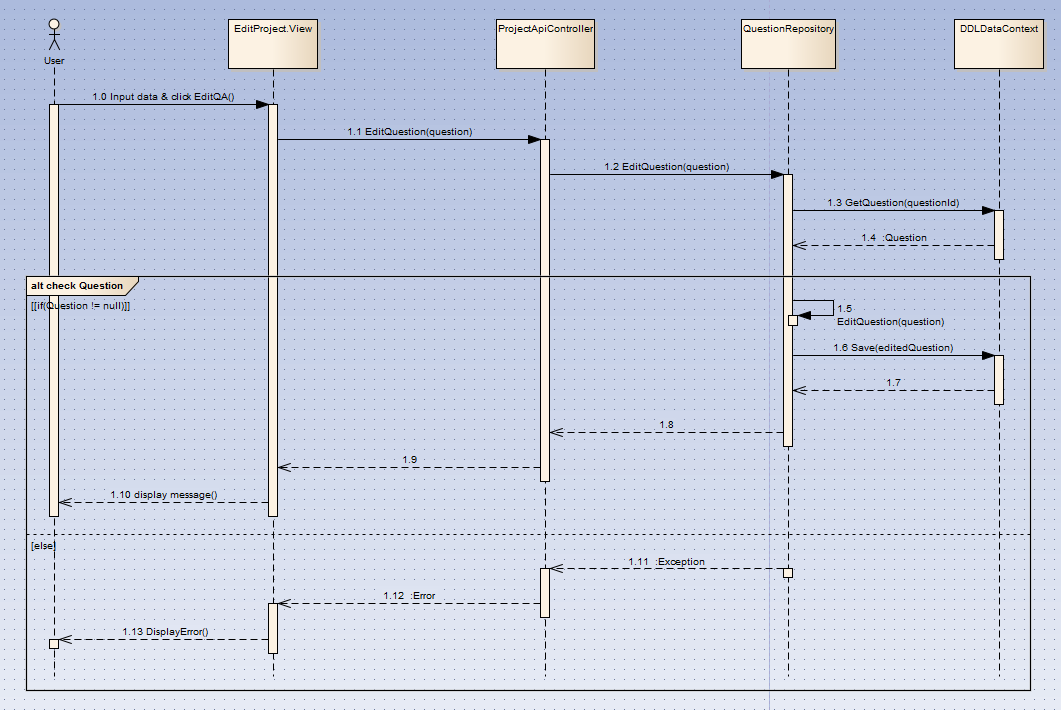
1. Delete update log sequence diagram

#### Create Q&A



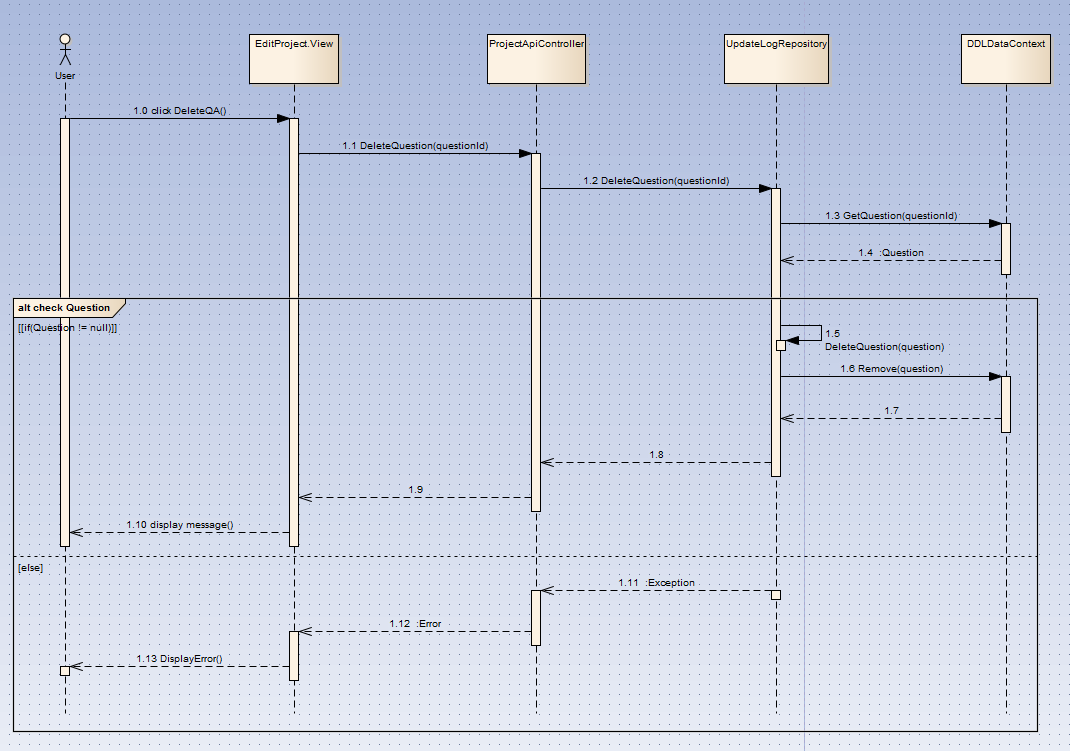
1. Create Q&A sequence diagram

#### Edit Q&A



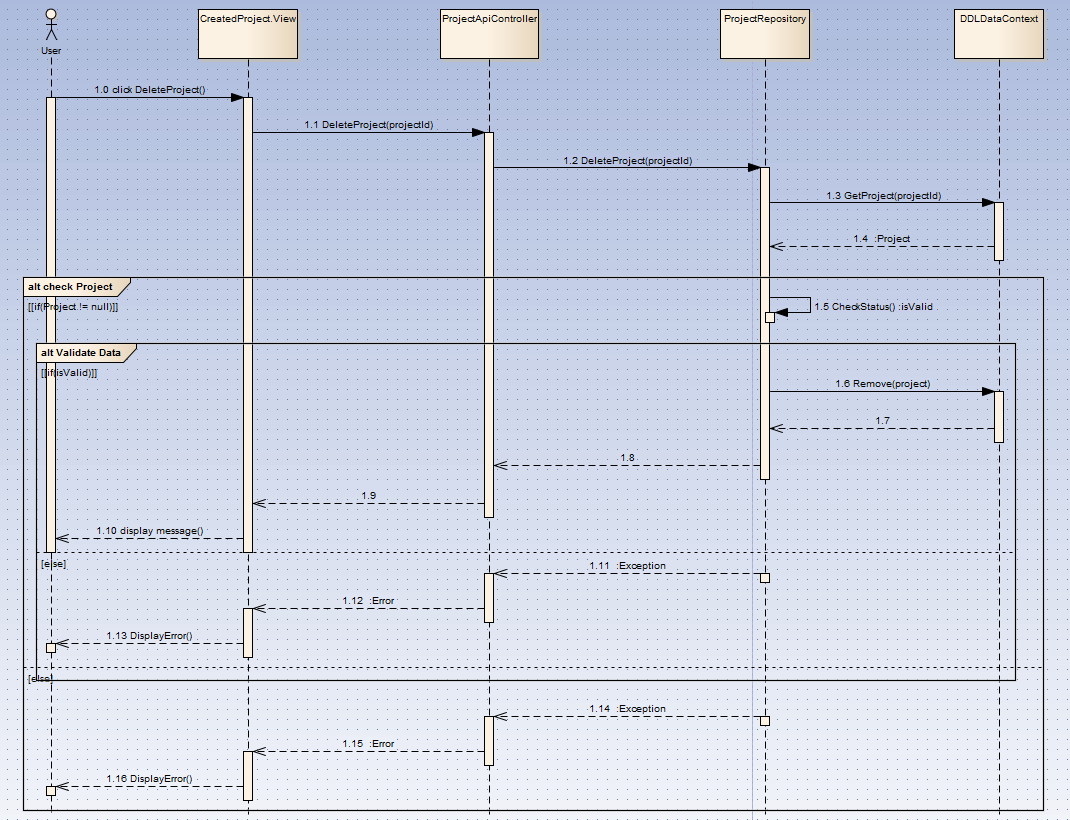
1. Edit Q&A sequence diagram

#### Delete Q&A



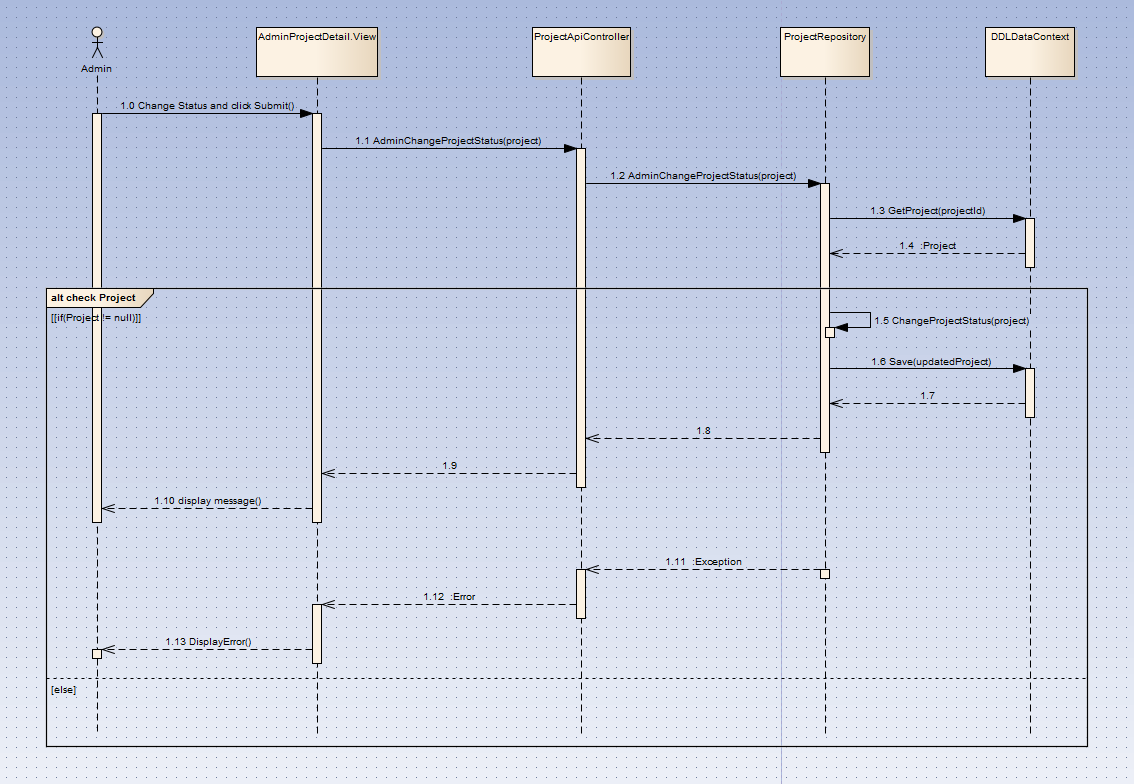
1. Delete Q&A sequence diagram

#### Delete project



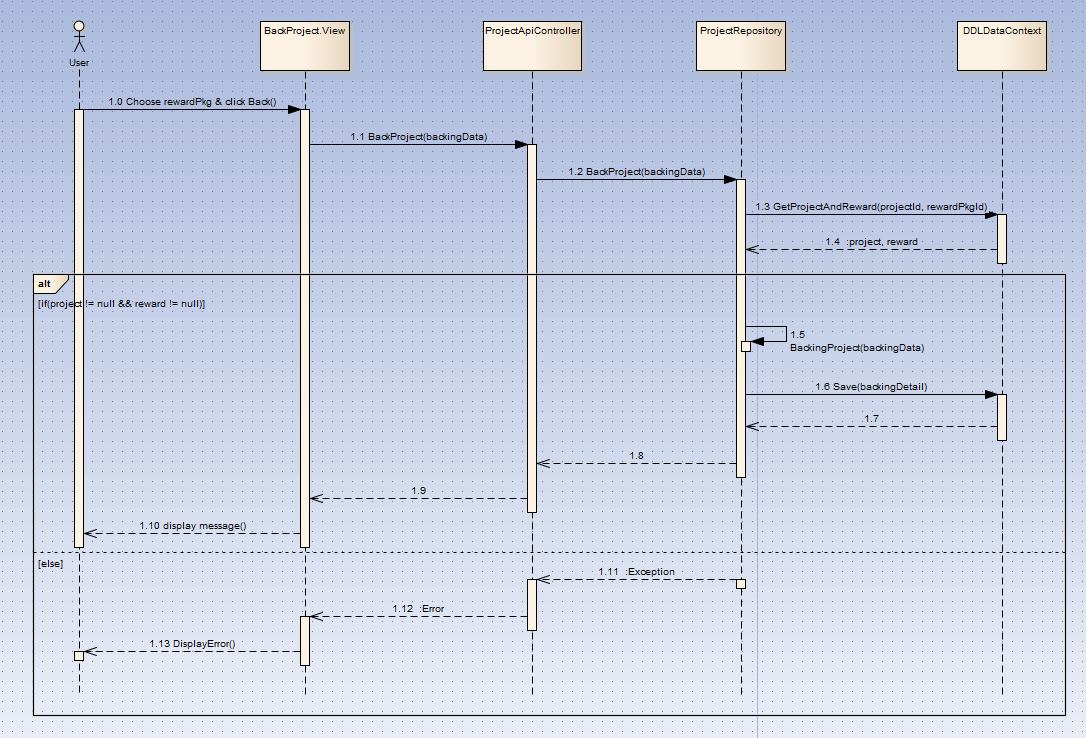
1. Delete project sequence diagram

#### Change project status



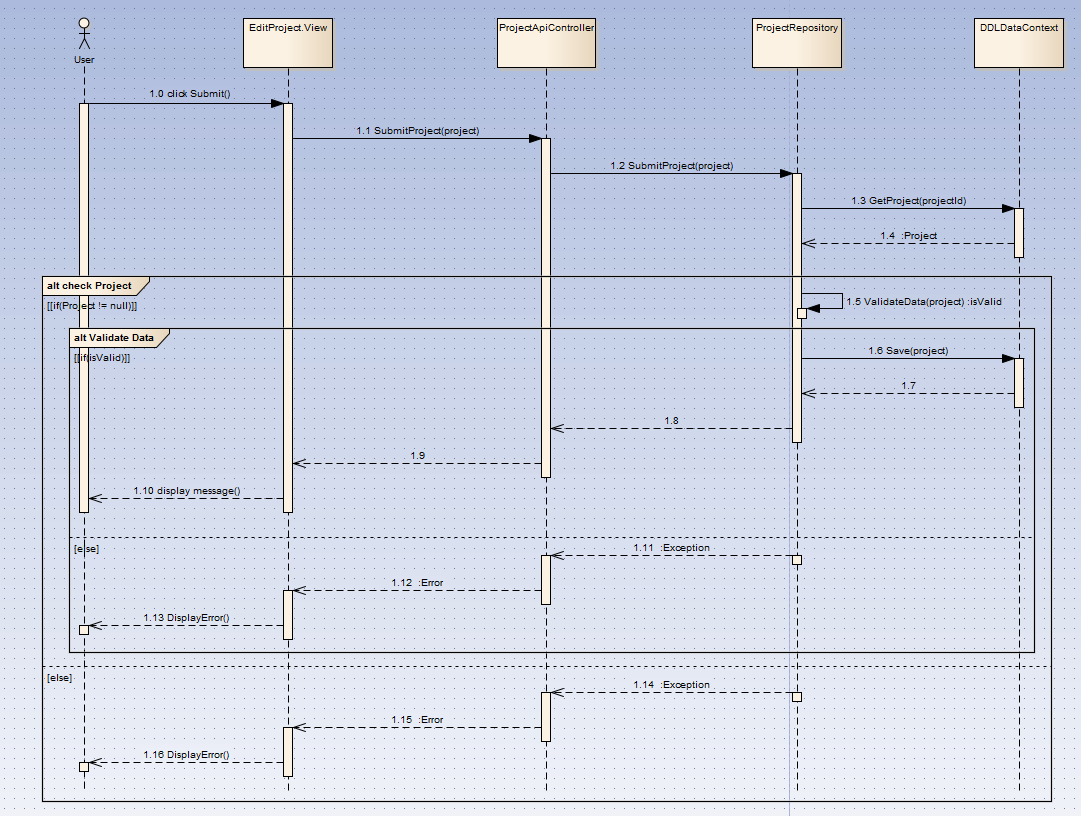
1. Change project status sequence diagram

#### Back project



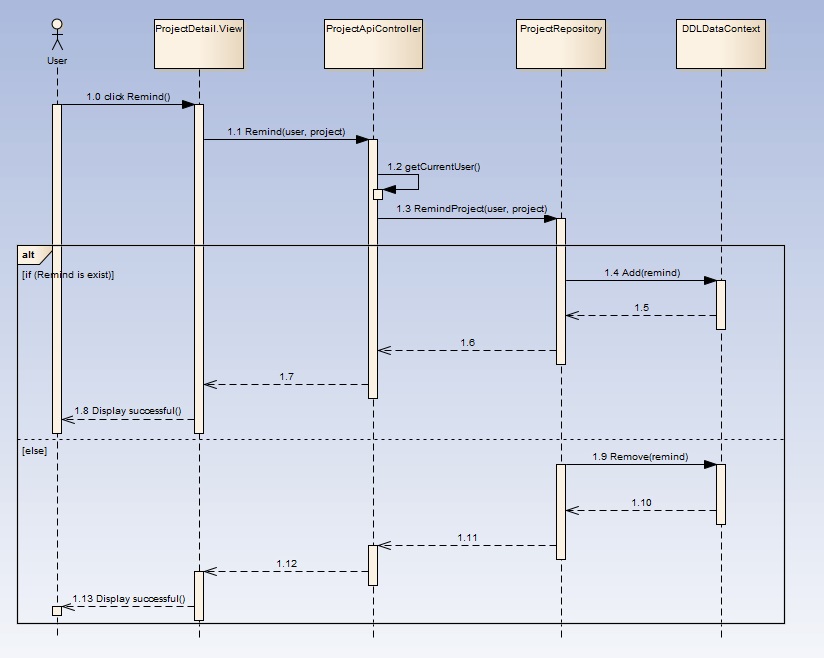
1. Back project sequence diagram

#### Submit project



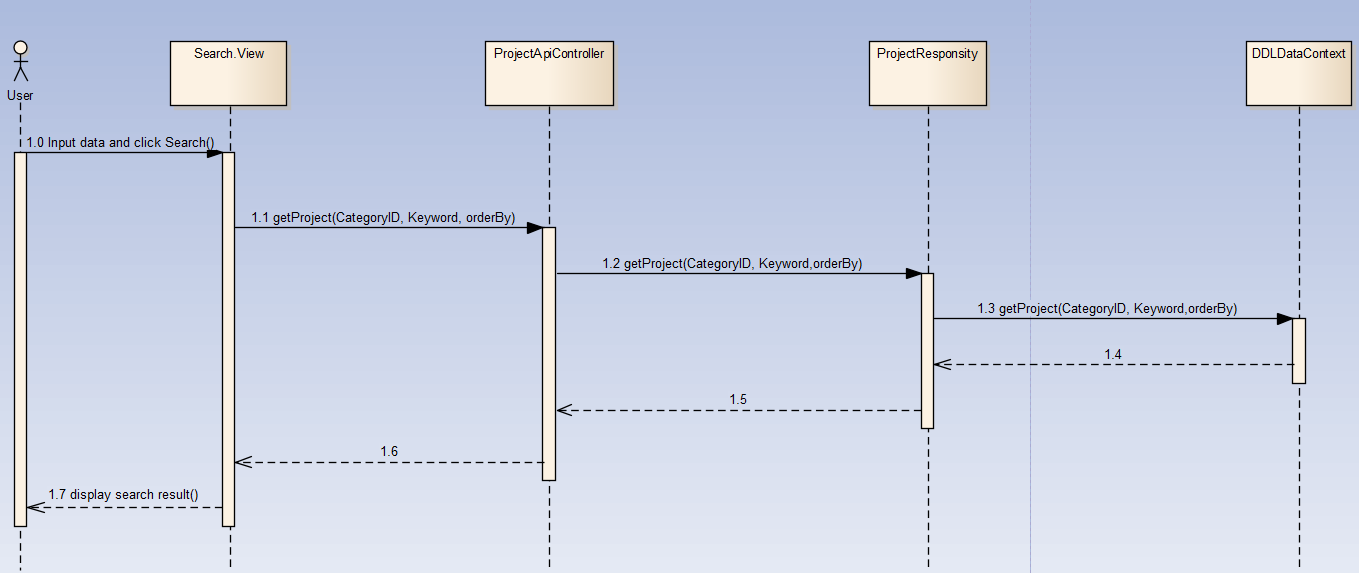
1. Submit project sequence diagram

#### Remind/ Unremind Project



1. Remind/ Unremind project sequence diagram

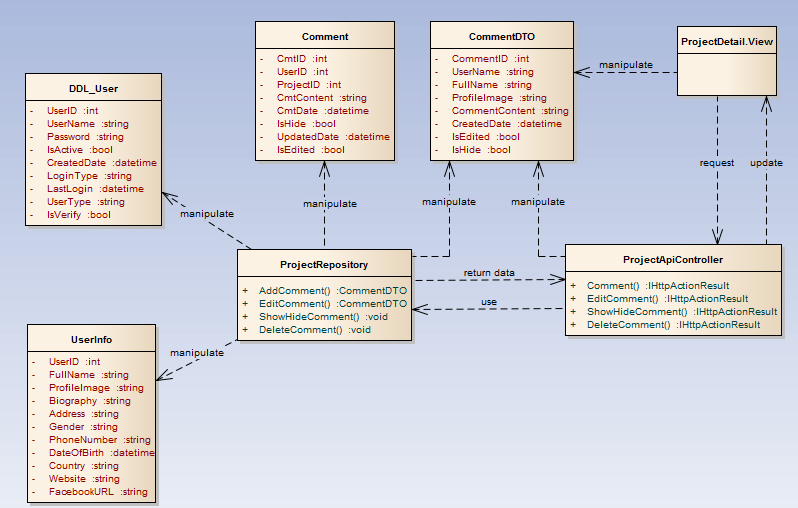
#### Search



1. Search project sequence diagram

## Comment

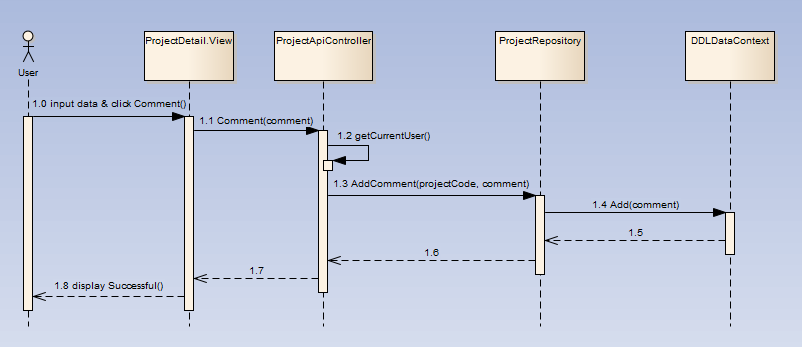
### Class diagram



1. Comment function class diagram

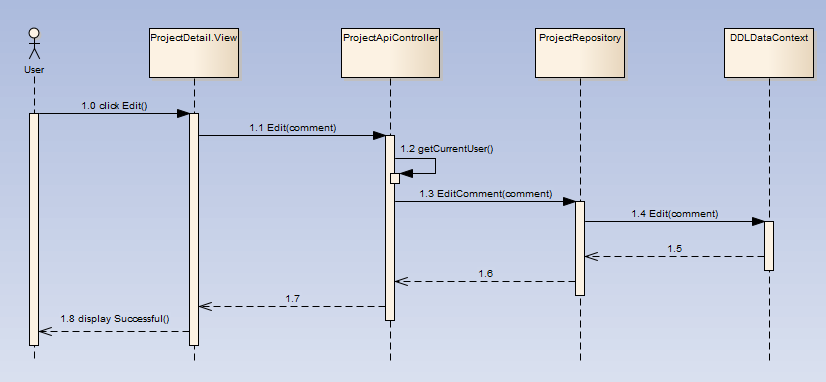
### Sequence diagram

#### Add new comment



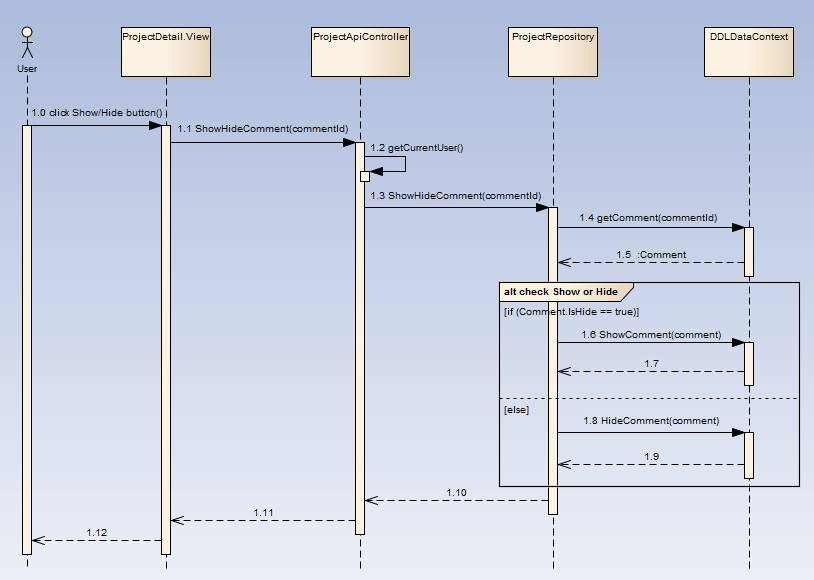
1. Add new comment sequence diagram

#### Edit comment



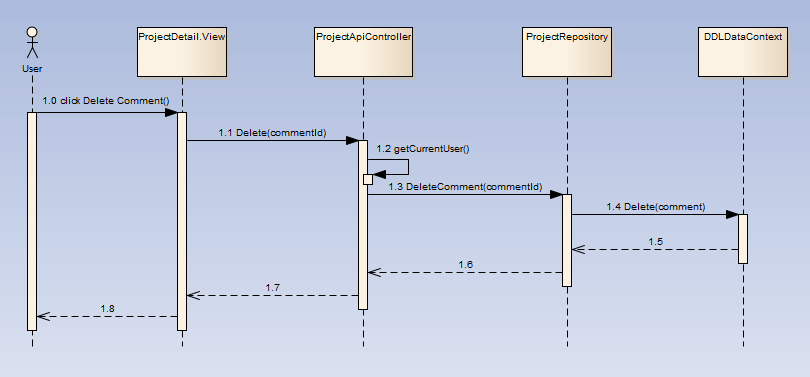
1. Edit comment sequence diagram

#### Show/hide comment



1. Show/hide comment sequence diagram

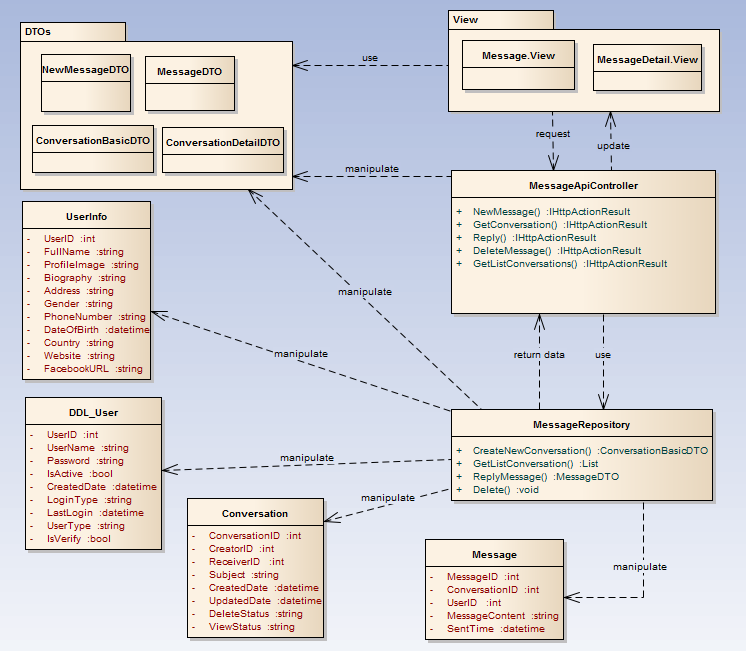
#### Delete comment



1. Delete comment sequence diagram

## Message

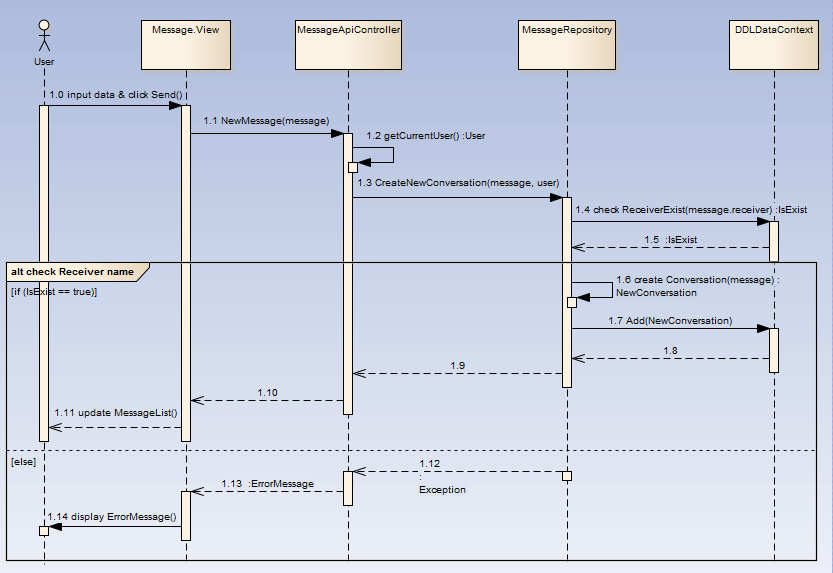
### Class diagram



1. Message function class diagram

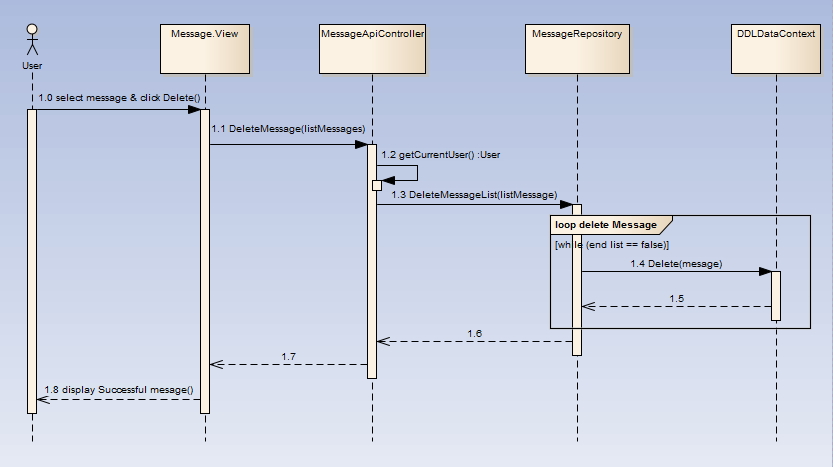
### Sequence diagram

#### Send message



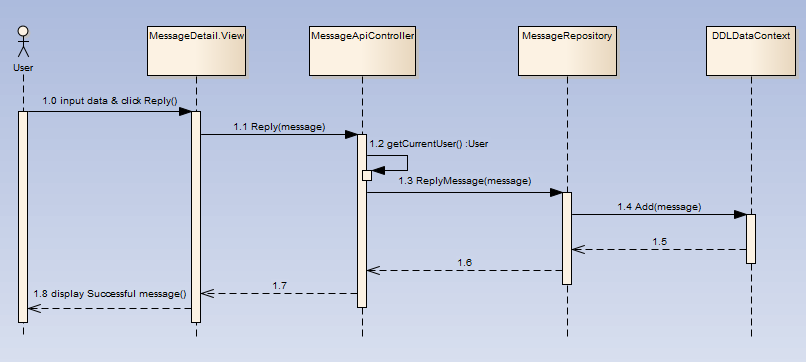
1. Send message sequence diagram

#### Delete message



1. Delete message sequence diagram

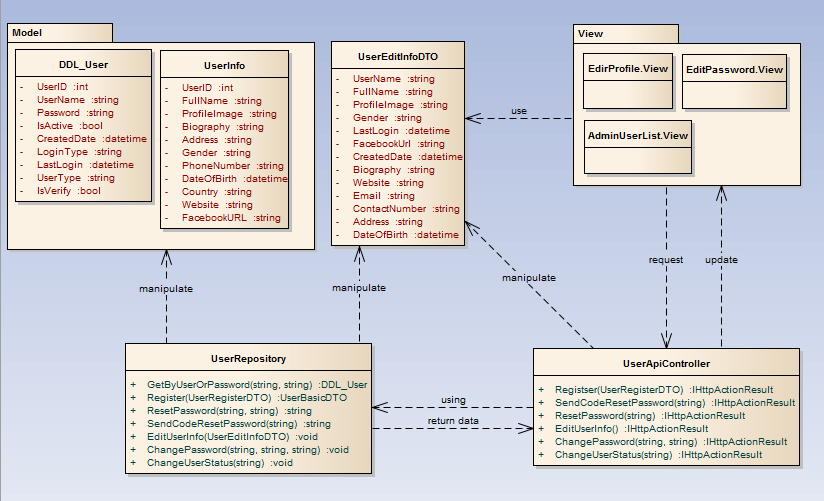
#### Reply message



1. Reply message sequence diagram

## User

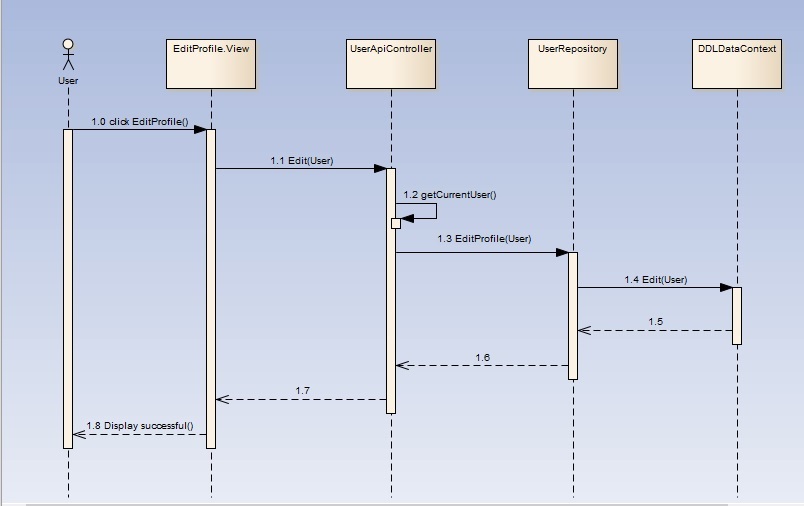
### Class diagram



1. User functions class diagram

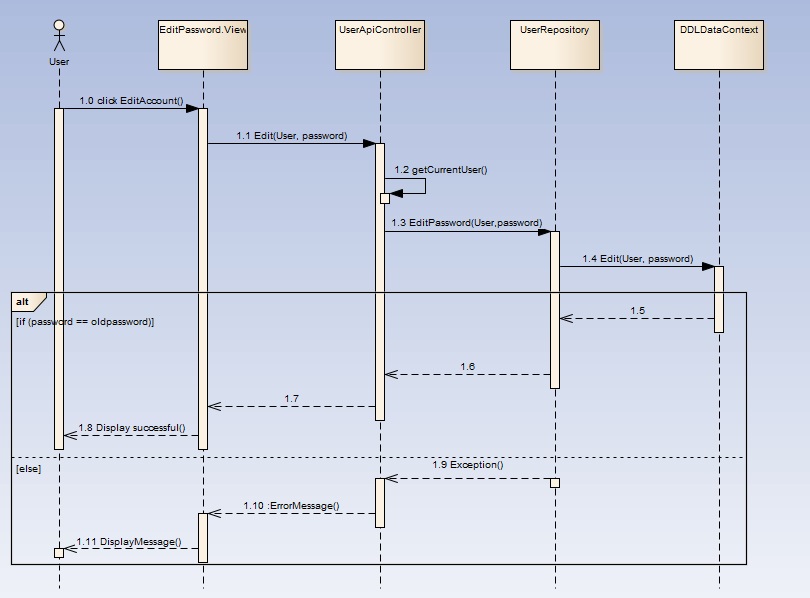
### Sequence diagram

#### Edit profile



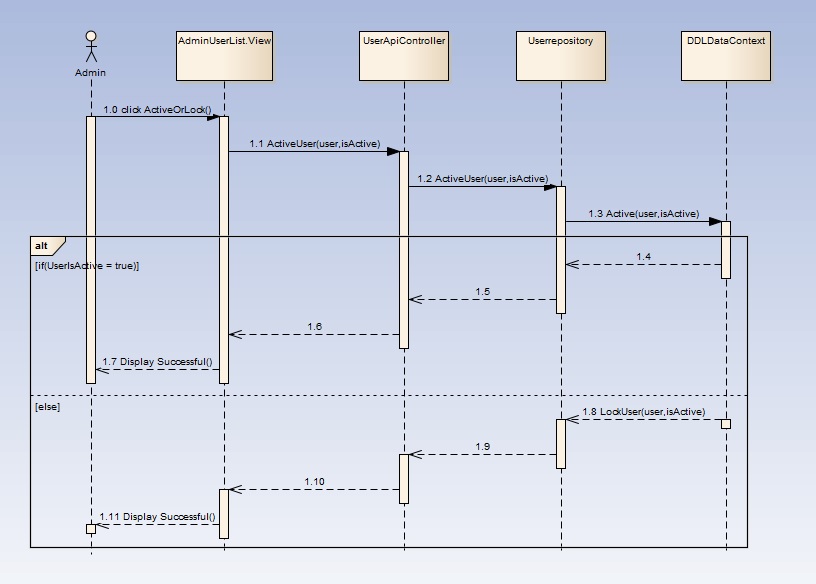
1. Edit profile sequence diagram

#### Change password



1. Change password sequence diagram

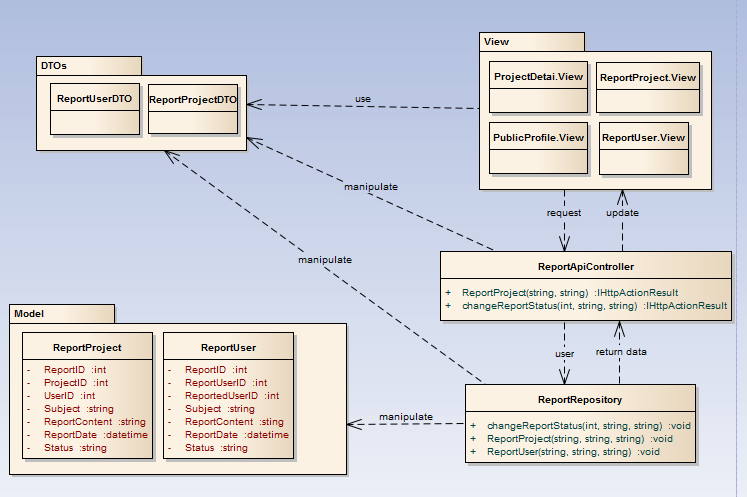
#### Active/deactive user



1. Active/ deactive user sequence diagram

## Report

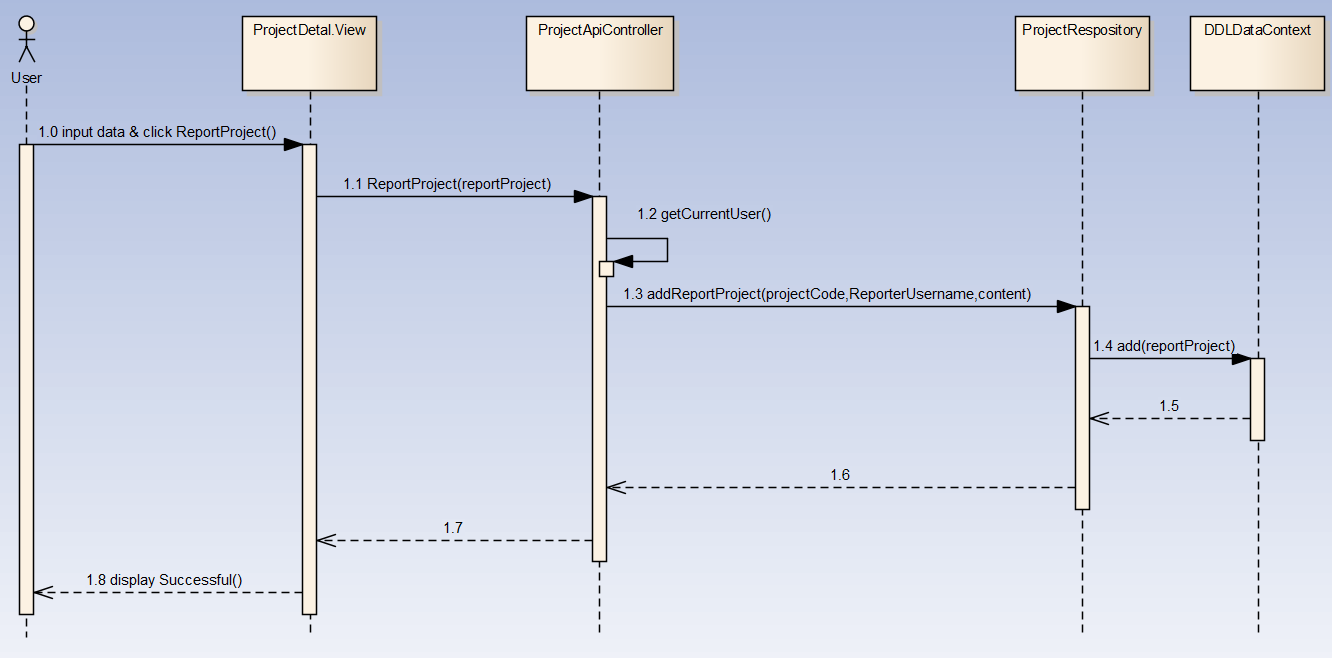
### Class diagram



1. Report functions class diagram

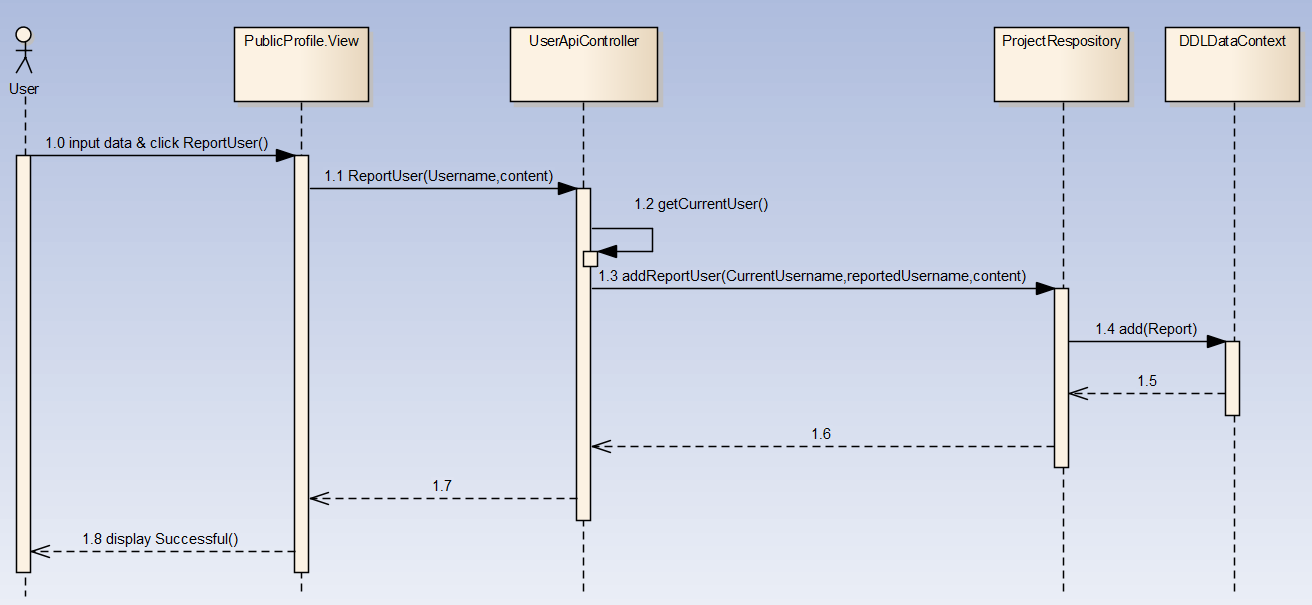
### Sequence diagram

#### Report Project



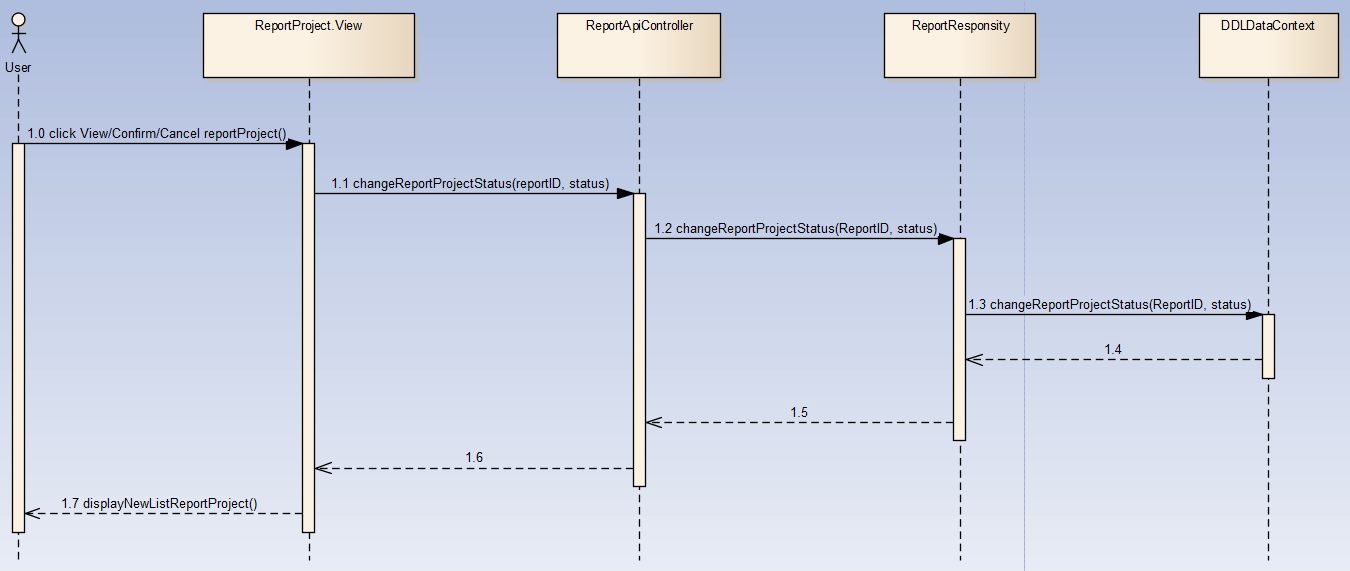
1. Report project sequence diagram

#### Report User



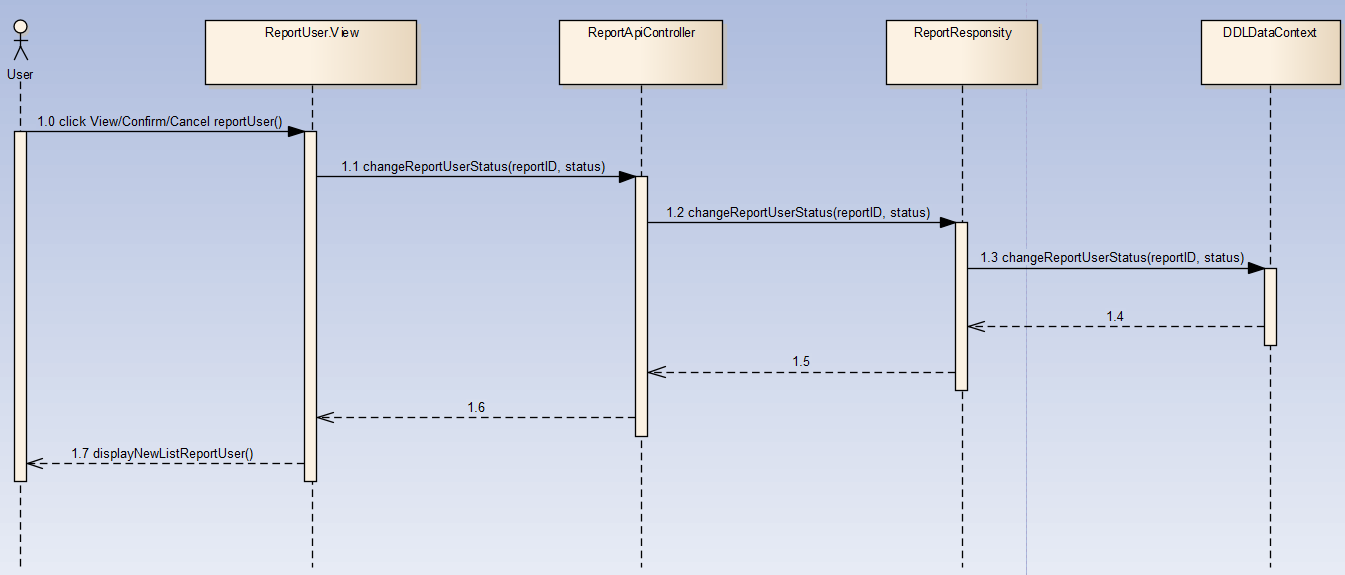
1. Report user sequence diagram

#### Change Report Project Status



1. Change Report Project Status sequence diagram

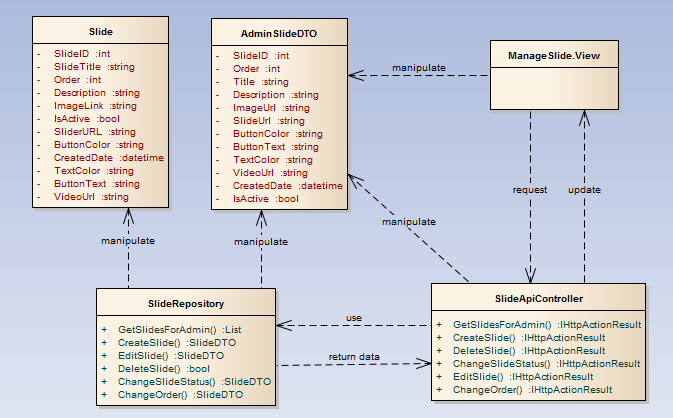
#### Change Report User Status



1. Change Report Project Status sequence diagram

## Manage Slide

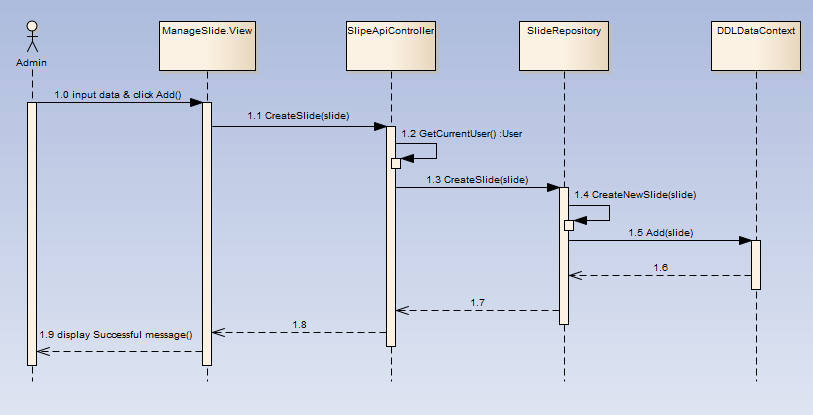
### Class diagram



1. Manage Slide class diagram

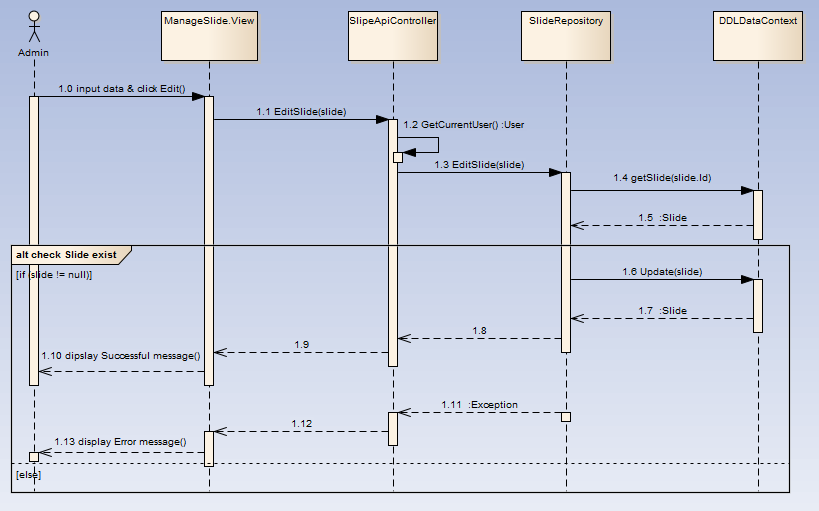
### Sequence diagram

#### Add slide



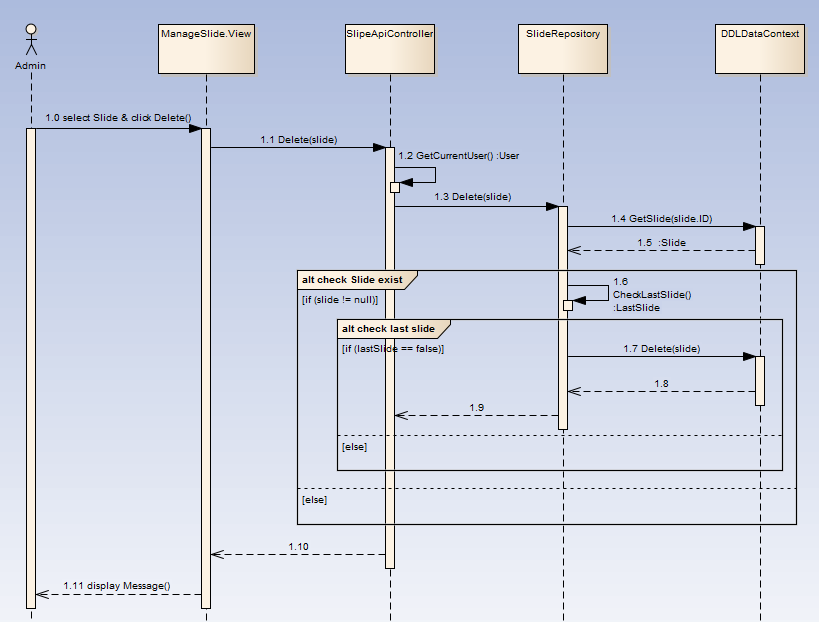
1. Add slide sequence diagram

#### Edit slide



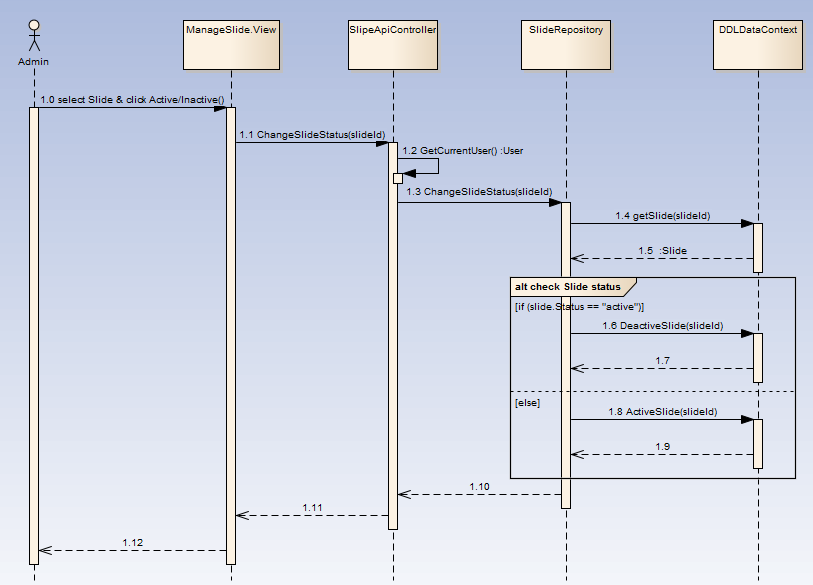
1. Edit slide sequence diagram

#### Delete slide



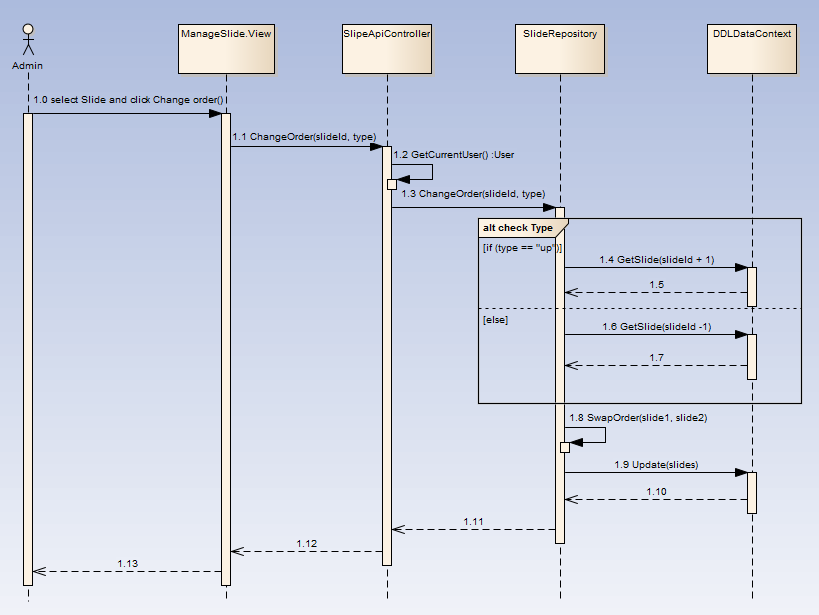
1. Delete slide sequence diagram

#### Active/deactive slide



1. Active/deactive slide sequence diagram

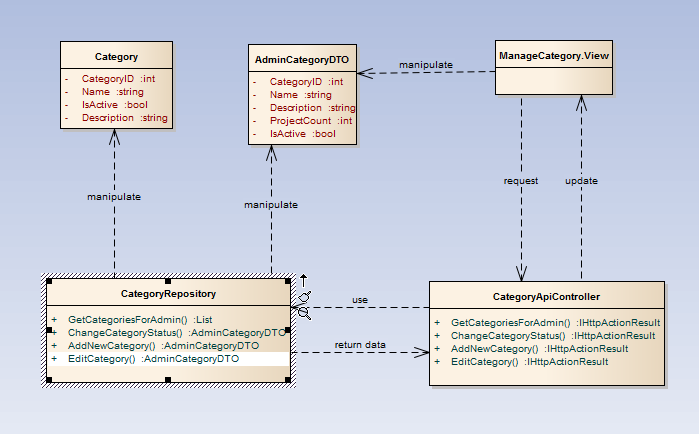
#### Change slide order



1. Change slide order sequence diagram

## Manage Category

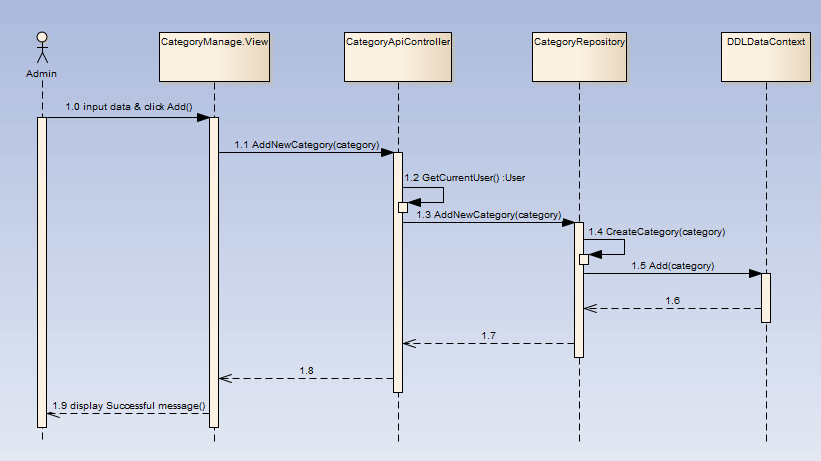
### Class diagram



1. Manage category class diagram

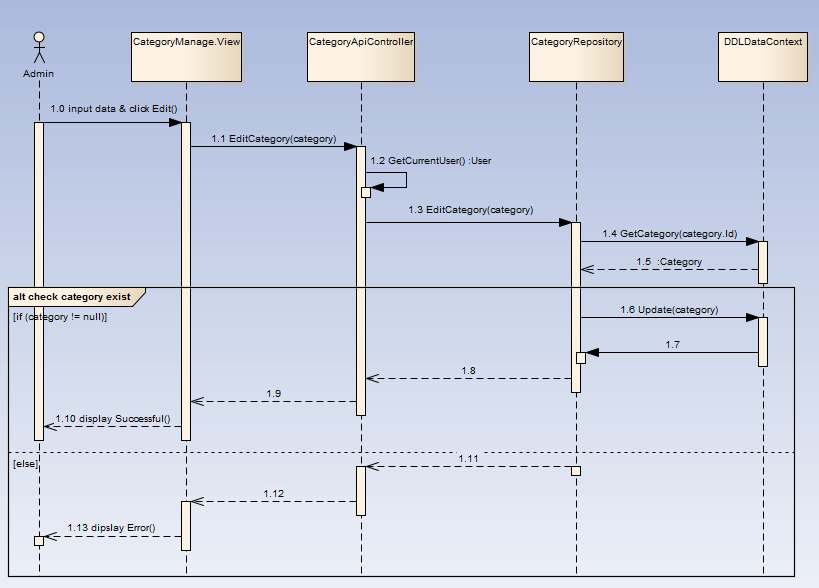
### Sequence diagram

#### Add category



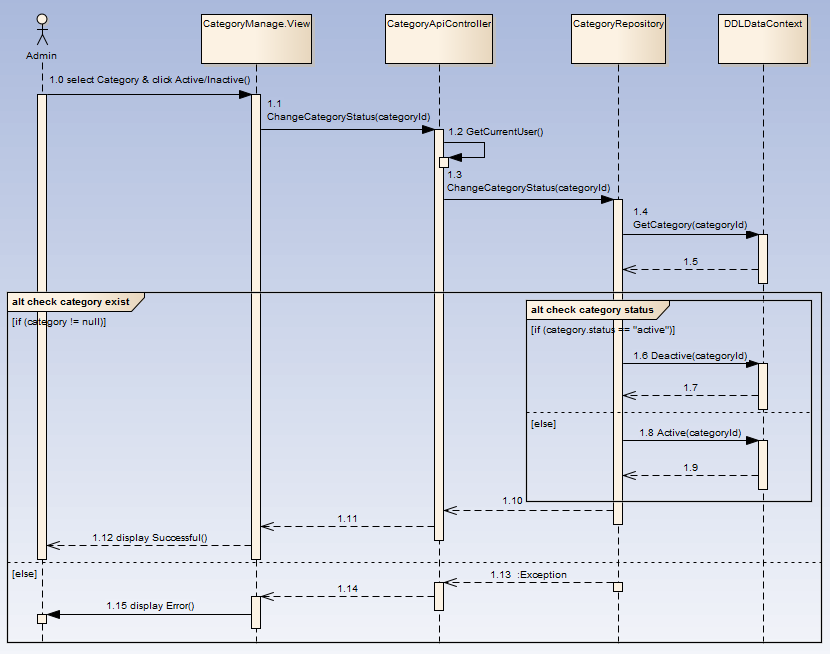
1. Add category sequence diagram

#### Edit category



1. Edit category sequence diagram

#### Active/deactive category



1. Active/deactive category sequence diagram