

[Project Name]

Detailed Design

Project Code:

Document Code: Detailed Design\_v0.9

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| Approval Page   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  | |  |  | | Prepared by : | FPT Technical Lead | | Signature: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  | |  | Date: | \_\_\_\_ /\_\_\_\_ / \_\_\_\_ | |  |  | |  |  | | Reviewed by : | FPT Technical Architect | | Signature: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  | | Date: | \_\_\_\_ /\_\_\_\_ / \_\_\_\_ | |  |  | |  |  | | Approved by: |  | | Signature: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  | | Date: | \_\_\_\_ /\_\_\_\_ / \_\_\_\_ | |
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Revision History

| **SNO** | **VERSION** | **DATE** | **AUTHOR** | **SUMMARY OF CHANGE** |
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# Introduction

This is the Detailed Design document Mock Project\_Claims Request\_v0.9.

## Purpose

The purpose of this document is to define the Detailed Design for Mock Project\_Claims Request\_v0.9.   
It helps programmers have a better overview of the system and avoid errors in the implementation process. The detailed design was created as a model design to help programmers step by step to complete the product

## Scope

The Detailed Design document focuses on the base level and critical modules/parts :

* Security Design
* Form Design
* Claim Request
* Project Information Request
* Staff Information Managerment
* Schedule Jobs

## Definitions, Acronyms and Abbreviations

|  |  |
| --- | --- |
| **Acronym** | **Reference** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
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## References

|  |  |  |
| --- | --- | --- |
| **Acronym** | **Last Update** | **Reference** |
|  |  |  |
|  |  |  |
|  |  |  |

## Technical Tool

* Visual Studio 2015-2017
* SQL Server 2012-2014
* C#.NET Frameword
* Design patten: 3 layer with MVC as Presentation layout.
* Entity Framework 6
* Identity Sample 2.2
* Jquery 1.10.2
* Bootstrap 4.

# Detailed Design



## Security Design

### Custom Permission Levels

Custom permission levels are created for specific requirements that the standard SharePoint permission levels cannot fulfil. The custom permissions are at Site Collection level.

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Name** | **Base Permission Level** | **Description** |
| 1 | Claimer | Limited Access | Claimer can view ,create, update and cancel claim request , delete draft  Claimer can’t delete claim requests , |
| 2 | Admin | Full Control | Admin has full control in system |
| 3 | Approver | Limited Access | Approver can view , reject , approve , return claim requests |
| 4 | Finance | Limited Access | Finance can paid , download claim requests |

### SharePoint Group

All SharePoint groups are created by code in feature activation. User will manually insert and update membership later.

| **No** | **Group Name** | **Description** |
| --- | --- | --- |
| 1 | Claimer | Group of Staff ( Ex : BA , Development , Tester ) |
| 2 | Admin | Group of people are system admin |
| 3 | Approver | Group of PM , BL |
| 4 | Finance | Group of Finance |

### User Groups & Permissions

This section describes assignment permission(s) for each group.

| **No** | **Group Name** | **Permission(s)** |
| --- | --- | --- |
| 1 | Claimer | **Create** Claim Request ,  **Update** Claim Request ,  **View** Claim Request ,  **Submit** Claim Request,  **Cancel** Claim Request |
| 2 | Admin | **Full Control** This level includes all available SharePoint permissions. |
| 3 | Approver | **View** Claim Request ,  **Reject** Claim Request ,  **Approve** Claim Request ,  **Return** Claim Request |
| 4 | Finance | **Paid** Claim Request  **Download** Claim Request |

## Form Design

The table below lists all forms with form type for this application:

|  |  |  |
| --- | --- | --- |
| View Name | View Type | Remarks/Justifications |
| UserLayout | Layout | This is layout file for user |
| Claims | Partial View | Use for display claims filter by some criteria |
| CreateClaim | View | Create new claim in this view |
| MyClaim | View | Fill draft, pending approve… claims in this view |
| Detailed | View | User can view and update in this view |
| ForMyVetting | View | Display claims status |
| ApprovedOrPaid | View | Display claims approved or paid for Approval |
| Approved | View | Display claims with status is “Approved” |
| Paid | View | Display claims with status is “Paid” |
| Staff | View | Display Staffs for administrator |
| StaffDetail | View | Display a Staff detail |
| StaffUpdate | View | User can update a Staff in this view |
| StaffCreate | View | User can create a new Staff in this view |
| Project | View | Display Projects for administrator |
| ProjectDetail | View | Display a Project detail |
| ProjectUpdate | View | User can update a Project in this view |
| ProjectCreate | View | User can create a new Project in this view |

|  |
| --- |
| Color note |
| Layout group |
| Partial view group |
| Claimer group |
| Approver group |
| Finance group |
| Staff view group |
| Project view group |

## Claim Request

### List Description

* List name: Claim Request
* Attachment: Enabled
* List template: Custom List
* List permission: Break permission from parent. Assign permission to this list:

| **No** | **Group Name** | **Permission(s)** |
| --- | --- | --- |
| 1 | Claimer | * Create new claim * View claim * Update claim * Submit * Cancel claim |
| 2 | Approver | * View claim * Approve claim * Return claim * Reject claim |
| 3 | Finance | * View claim * Paid claim * Download claim |
| 4 | Administrator | * View claim |

### List Columns

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Label** | **Field Name** | **Data Type** | **Mandatory** | **Description** |
| None | ClaimId | Int | Yes | Primary key, identity |
| Claim Status | ClaimStatus | String | Yes | Claim status |
| Date | Date | Date | Yes | Date |
| From | From | DateTime | Yes | Start time of actual working hours |
| To | To | DateTime | Yes | End time of actual working hours |
| Total No. of Hours | TotalNoOfHours | decimal | Yes | Total working hours |
| Remarks | Remarks | String | No | Remarks for each recorf |
| Staff Id | StaffId | Int | Yes | Foreigkey to Staff |
| Project Id | ProjectId | Int | yes | Foreigkey to Project |
| None | ApproverId | Int | yes | Foreigkey to Staff |

### List View

* **Create Claim (form)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Label** | **Field Name** | **Mandatory** | **Description** |
| ProjectId | ProjectId | yes | Dropdown list Project |
| Role in Project | RoleInProject | no | Input text |
| Date | Date | yes | Input date |
| Day | Day | No | Input text |
| From | From | yes | Input date |
| To | To | yes | Input date |
| Total No Of Hours | TotalNoOfHours | yes | Input number |
| Remarks | Remarks | No | Texarea |
| Button Create |  |  | Button Create new Claim |
|  |  |  |  |

* **Edit Claim (form)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Label** | **Field Name** | **Mandatory** | **Description** |
| Staff Id | StaffId | yes | Input hidden |
| ProjectId | ProjectId | yes | Dropdown list Project |
| Role in Project | RoleInProject | no | Input text |
| Date | Date | yes | Input date |
| Day | Day | No | Input text |
| From | From | yes | Input date |
| To | To | yes | Input date |
| Total No Of Hours | TotalNoOfHours | yes | Input number |
| Remarks | Remarks | No | Texarea |
| Button Save |  |  | Button Save Claim |
| Button Submit |  |  | Button submit Claim |

* **My Claims > Draft.**

Type view: View display list Claim

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| ViewDetail |  | Button ViewDatail |
| Submit |  | Button Submit |
| Edit |  | Button goto view Edit Claim |
| Cancel |  | Button cancel |

* **My Claims > Pending approval.**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| ViewDetail |  | Button ViewDatail |
|  |  |  |

* **My Claims > Approved.**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| paid |  | Button ViewDatail |
|  |  |  |

* **My Claims > Paid.**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| ViewDatail |  | Button ViewDatail |
|  |  |  |

* **My Claims > Rejected or Cancelled.**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| ViewDetail |  | Button show popup detail Claim |
|  |  |  |
|  |  |  |

* **Claim for Approval > For my Vetting.**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| Total Claim Amount | TotalClaimAmount |  |
| Approve |  | Button Aprroved |
| View Detail |  | Button show popup detail Claim |

* **Claim for Approval > Approved or Paid.**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| Total Claim Amount | TotalClaimAmount |  |
| View Detail |  | Button show detail Claim |

* **Claim for Finance > Approved**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| Total Claim Amount | TotalClaimAmount |  |
| Paid |  | button paided |
| View Detail |  | Button show detail Claim |

* **Claim for Finance > Paid.**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Claim Id | ClaimId | Table claim |
| Staff Name | StaffName | Table staff |
| Project Name | ProjectName | Table project |
| Project Duration | ProjectDuration | Table claim |
| Total working hour | TotalWorkingHour | Table claim |
| Total Claim Amount | TotalClaimAmount |  |
| Dowload |  | Button Dowload |
| View Detail |  | Button show detail Claim |

### Class List

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Name Space** | **Class Name** | **Description** |
| 1 | DTO | ClaimRequest | Describe Claim Request Entity |
| 2 | Responsitory | ClaimRequestResponsitory | Inherite Responsitory |
| 3 | BUS | ClaimRequestService |  |
| 4 | Controller | ClaimRequestController |  |
| 5 | Commond | Enum ApproveType | Approve/Return/Reject/Paid/Cancel |
| 6 | Commond | ClaimStatus |  |
|  |  |  |  |

### Class Methods

##### ClaimRequest class

|  |  |  |
| --- | --- | --- |
| **No** | **Propeties** | **Description** |
| 1 | Int ClaimId |  |
| 2 | String ClaimStatus |  |
| 3 | DateTime Date |  |
| 4 | DateTime From |  |
| 5 | DateTime To |  |
| 6 | Decimal TotalNoOfHours |  |
| 7 | String Remarks | Nullable |
| 8 | Int StaffId |  |
| 9 | Virtual Staff Staffs |  |
| 10 | Int ProjectId |  |
| 11 | Virtual Project project |  |

##### ClaimStatus class

|  |  |  |
| --- | --- | --- |
| **No** | **Propeties** | **Description** |
| 1 | Const string DRAFT = “Draft” |  |
| 2 | Const string APPROVED = “Approved” |  |
| 3 | Const string REJECT = “Reject” |  |
| 4 | Const string PAID = “Paid” |  |

##### ClaimRequestResponsitory class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | Ienumeratior<>GetAll |  |  |
| 2 | int Insert | ClaimRequest claimRequest |  |
| 3 | int Update | ClaimRequest claimRequest |  |
| 4 | int GetById | Int claimId |  |

##### ClaimRequestBUS class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | Ienumeratior<>GetAll |  |  |
|  | MyClaimDraft |  | Return list Claim in current user with status is Draft |
| 2 | Int Insert | ClaimRequest claimRequest  List<string> error |  |
| 3 | int Update | ClaimRequest claimRequest  List<string> error |  |
| 4 | Int ApproveRequest | Int claimId  ApproveType approveType | Update claim request with action type Submit/Approve/Return/Reject/Paid/Cancel  Add into Audit train: ApproveType by <<current user name>> on <<current date time>>. |
| 5 | ClaimRequest GetById | Int claimId  List<string> error |  |
| 6 | Bool Validate | ClaimRequest claimRequest  List<string>error |  |
| 7 | Void Download | List<string>error |  |
| 8 | Ienumerator GetByOneOrMoreStatus | String Status | Input parameter is one or list of Status |
| 9 | Void SendMail | List<string>error  String emailFrom  String emailTo  String subject  String body |  |

##### ClaimRequestController class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | Index |  | Show dashboard to:  My Claims > Draft.  My Claims > Pending approval.  My Claims > Approved  My Claims > Paid  My Claims > Rejected or Cancelled  Claim for Approval > For my Vetting  Claim for Approval > Approved or Paid  Claim for Approval > Approved  Claim for Approval > Paid |
| 2 | MyClaimDraft |  | Return partial view |
|  | MyClaimPendingApproval |  | Return partial view |
| 3 | MyClaimPaid |  | Return partial view |
| 4 | MyClaimRejectedOrCanceled |  | Return partial view |
| 5 | ClaimForApprovalForMyVetting |  | Return partial view |
| 6 | ClaimForApprovalApprovedOrPaid |  | Return partial view |
| 7 | ClaimForApprovalApproved |  | Return partial view |
| 8 | ClaimForApprovalPaid |  | Return partial view |
| 9 | CreateClaims | Get:  Post: ClaimRequest | Return Create View |
| 10 | UpdateClaims | Get: ClaimRequestId  Post: ClaimRequest | Return this View |
| 11 | SubmitClaim | Get: ClaimRequestId | Redirect to this view  Update status of Claim is Pending Approval  Update SummitedDate is today  Using ET1 to send email to Approver |
| 12 | ApproveClaim | Get: ClaimRequestId | Redirect to this view  Update status of Claim is Approved  Update Approved is today  Using ET2 to send email to Financer an ET3 to Creator |
| 13 | ReturnClaim | Get: ClaimRequestId | Redirect to previous view  Update status of Claim is Draft  Update Approved is today  Using ET2 to send email to Creator |
| 14 | RejectClaim | Get: ClaimRequestId | Redirect to previous view  Update status of Claim is Rejected |
| 15 | PaidClaim | Get: ClaimRequestId | Redirect to previous view  Update status of Claim is Paid |
| 16 | CancelClaim | Get: ClaimRequestId | Redirect to previous view  Update status of Claim is Cancelled |
| 17 | DownloadClaim |  |  |

## Project Infomation Request

### List Description

* List name: Project
* Attachment: Enabled
* List template: Custom List
* List permission: Break permission from parent. Assign permission to this list:

| **No** | **Group Name** | **Permission(s)** |
| --- | --- | --- |
| 1 | Claimer | - No Action |
| 2 | Approver | - No Action |
| 3 | Admin | - Create, View, Update Project Information |
| 4 | Finance | - No Action |
| 5 |  |  |
| 6 |  |  |
| 7 |  |  |

### List Columns

**Project list columns**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Label** | **Field Name** | **Data Type** | **Mandatory?** | **Description** |
| Null | ProjectId | Int | Yes | Index |
| Project Name | ProjectName | Nvarchar(100) | Yes | Project’s name |
| ProjectManager Name | FK\_PMId\_StaffId | Int | Yes | Foreign Key of StaffId in table Staff as Project Manager |
| Duration | Duration | Decimal | Yes | Estimated total worked hours |
| Start Date | StartDate | DateTime | Yes | The day project’s started |
| Complete On | CompleteOn | DateTime | Yes | The day project's closed |
| Budget | Budget | Decimal | Yes | Estimated amount for project |
| Null | ProjectStatus | Text | Yes | Status of project ( opened,closed) |
| Description | Description | Text | No | Project's description |

**Project\_Staff list columns**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Label** | **Field Name** | **Data Type** | **Mandatory?** | **Description** |
| ProjectID | ProjectId | Int | Yes | Foreign Key of Project table |
| StaffID | StaffId | Int | Yes | Foreign Key of Staff table |
| Null | Status | Nvarchar(20) | Yes | Status should be “Working/Worked” |
| Null | AddOn | DateTime | Yes | The time that Staff was added to project |
| Null | ModifiedDate | DateTime | No |  |

### List View

* **Configurations > Project Information**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Project Name | StaffName | Table project |
| Project Code | ProjectCode | Table project |
| Duration | Duration | Table project |
| From | From | Table project |
| To | To | Table project |
| PM | StaffName | Table staff |
| Edit  ViewDetail |  | Button Edit(go to View Edit Project)  View Detail(show popup detail project) |
|  |  |  |

* **Configurations > Create Project**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Project Name | StaffName | Input required |
| Project Code | ProjectCode | Input required |
| Duration | Duration | Input required |
| From | From | Input date required |
| To | To | Input date required |
| Project Manager | StaffId | Dropdown list staff |
| Developers | Developers | Select multiple choice |
| Testers | Developers | Select multiple choice |
| Technical Consultancy | Technical Consultancy | Select multiple choice |
| Technical lead | TechnicalLead | Select multiple choice |
| BA | BA | Select multiple choice |
| QA | QA | Select multiple choice |
| Button Create |  | Button create |

* **Configurations > Edit Project**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Project Name | StaffName | Input required |
| Project Code | ProjectCode | Input required |
| Duration | Duration | Input required |
| From | From | Input date required |
| To | To | Input date required |
| Project Manager | StaffId | Dropdown list staff |
| Developers | Developers | Select multiple choice |
| Testers | Developers | Select multiple choice |
| Technical Consultancy | Technical Consultancy | Select multiple choice |
| Technical lead | TechnicalLead | Select multiple choice |
| BA | BA | Select multiple choice |
| QA | QA | Select multiple choice |
| Button Save |  | Button Save |

### Class List

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Name Space** | **Class Name** | **Description** |
| 1 | Responsitory | ProjectResponsitory | Inherit Responsitory |
| 2 | Responsitory | ProjectStaffResponsitory | Inherit Responsitory |
| 3 | BUS | ProjectService |  |
| 4 | BUS | ProjectStaffService |  |
| 5 | Controller | ProjectsController |  |

### Class Methods

##### ProjectDAL class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | GetAllProject |  | Returns all project |
| 2 | Insert | Project project | Admin creates project and insert who works for this project by the time Admin create the project |
| 3 | Edit | ProjectID,Project updateObject | Update project’s information |
| 4 | GetProjectById | ProjectId | Returns a specified project |
| 5 | Close | ProjectId | Change the project’s status to “Closed” |

##### ProjectStaffDAL class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | GetAllStaffByProjectId | ProjectId | Returns all staff in a specified project |
| 2 | InsertStaffIntoProject | ProjectId,  StaffId | Admin creates project and insert who works for that project by the time Admin create the project |
| 3 | Edit | ProjectID,  StaffId | Status of staff in the project has been changed |

##### ProjectService class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | GetAllProject |  | Returns all project |
| 2 | ProjectDetail | ProjectId | Call method GetProjectById in DAL |
| 3 | Insert | Project project |  |
| 4 | Edit | ProjectID,  Project updateObject | Edit project’s information |
| 5 | Close | ProjectId | Status of staff in the project has been changed |

##### ProjectService class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | GetAllStaffByProjectId | ProjectId | Returns all staff in a specified project |
| 2 | InsertStaffIntoProject | ProjectId,  StaffId | Admin creates project and insert who works for that project by the time Admin create the project |
| 3 | Edit | ProjectID,  StaffId | Status of staff in the project has been changed |

##### ProjectController class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | Index |  | Display all project |
| 2 | Create |  | Redirect to Create View |
| 3 | Create | Project project  FormCollection [“staffs”] | Insert new project, call method Insert from ProjectService class  By the time, add information to ProjectStaff table with recently created ProjectId and selected StaffIds.  Each StaffId is saved as a new record. |
| 4 | Configuration | ProjectId | Redirect to Configuration View |
| 5 | Configuration | Project project | Use Edit method of ProjectService class |
| 6 | ProjectInformation | ProjectId | Redirect to ProjectInformation View |
| 7 | Close | ProjectId | Changes specified project’s status to “Closed” and redirect to Index View |

## Staff Infomation Management

### List Description

* List name: Staff
* Attachment: Enabled
* List template: Custom List
* List permission: Break permission from parent. Assign permission to this list:

| **No** | **Group Name** | **Permission(s)** |
| --- | --- | --- |
| 1 | Admin | Full Permission(Edit, Create, Update, Delete) |
| 2 | Claimer | No Permission |
| 3 | Approver | No Permission |
| 4 | Finace | No Permission |

### List Columns

* Table Name: Staff

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lablel | Field Name | Data Type | Mandatory | Description |
| Staff ID | StaffId | Int | Yes | Primary key( To allow select user )  ForeignKey to UserId of Identity |
| Staff Name | StaffName | Varchar(200) |  |  |
| Email Staff | Email | Varchar(50) |  |  |
| Salary Staff | Salary | Decimal |  |  |
| Card Number | Card\_Number | Varchar(50) |  |  |
| Job rank Id | JobRankId | Int | Yes |  |
| Department ID | DepartmentId | Int | Yes |  |

* Table Name: Department

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lablel | Field Name | Data Type | Mandatory | Description |
| Department ID | DepartmentId | Int | Yes | Primary key( To allow select user ) |
| Department Name | DepartmentName | Varchar(200) | Yes |  |
| Description | Description | Varchar(50) | No |  |

* Table Name: Job Rank

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lablel | Field Name | Data Type | Mandatory | Description |
| Job Rank ID | JobRankId | Int | Yes | Primary key( To allow select user ) |
| Job Rank Name | JobRankName | Varchar(200) | Yes |  |
| Description | Description | Text |  |  |

### List View

* **Configurations > Staff Information**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Staff Name | StaffName | Table staff |
| Department | StaffDepartment | Table staff |
| Job Rank | JobRankName | Table JobRank |
| Salary | Salary | Table staff |
| Phone | Phone | Table staff |
| Edit |  | Button Edit |
| ViewDetail |  | Button show popup detail staff |

* **Configurations > Create new Staff (**form create new staff**)**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| Staff Name | StaffName | Input text,required |
| Department | StaffDepartment | Input text,required |
| Job Rank | JobRankName | Dropdownlist Job rank |
| Salary | Salary | Input required |
| Phone | Phone | Input |
| Button Create new Staff |  | Button |

* **Configurations > Edit Staff (**form create new staff**)**

|  |  |  |
| --- | --- | --- |
| **Column Label** | **Field Name** | **Description** |
| StaffId | StaffId | Input hidden |
| Staff Name | StaffName | Input text,required |
| Department | StaffDepartment | Input text,required |
| Job Rank | JobRankName | Dropdownlist Job rank |
| Salary | Salary | Input required |
| Phone | Phone | Input |
| Button Save new Staff |  | Button |

### Class List

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Name Space** | **Class Name** | **Description** |
| 1 | DTO | Staff | Describe Claim Request Entity |
| 2 | DTO | Department | Description Department Entity |
| 3 | DTO | JobRank | Description JobRank Entity |
| 4 | Responsitory | StaffResponsitory | Inherite AllResponsitory |
| 3 | BUS | StaffService |  |
| 4 | Controller | StaffsController |  |
|  |  |  |  |

### Class Methods

##### Staff class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Data Type** | **Propeties** | **Description** |
| 1 | Int | StaffId |  |
| 2 | String | StaffName |  |
| 3 | String | Email |  |
| 4 | Decimal | Salary |  |
| 5 | String | Card\_Number |  |
| 6 | Int | JobRankId |  |
| 7 | Int | DepartmentId |  |

##### StaffResponsitory class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | Ienumeratior<>GetAll |  |  |
| 2 | int Insert | Staff staff |  |
| 3 | int Update | int StaffId, Staff staff |  |
| 4 | int Delete | int StaffId |  |
| 5 | int GetById | int StaffId |  |

##### StaffBUS class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | Ienumeratior<>GetAll |  |  |
| 2 | Int Insert | Staff staff  List<string> error |  |
| 3 | int Update | Int StaffId, Staff staff  List<string> error |  |
| 4 | Staff GetStaffById | Staff staff  List<string> error |  |
| 5 | Bool Validate | Staff staff  List<string>error |  |

##### StaffsController class

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Method** | **Parameter** | **Description** |
| 1 | Index |  | Return view with all staff’s information |
| 2 | CreateStaff |  | Return Create View |
| 3 | CreateStaff | Staff staff  List<string> error | Insert new record |
| 4 | UpdateStaff |  | Return this View |
| 5 | UpdateStaff | Int StaffId, Staff staff  List<string> error | Update |

* 1. **Schedule Jobs**
     1. **Send reminder**
* Job name: Send Email Reminder
* Job Description: This use case allows the system to send notification emails to pending approver or pending clarification staff that require their attention.
* User: service account with appropriate permission
* Scheduler: Trigger daily at 1:00 AM
* Job parameters:

|  |  |  |
| --- | --- | --- |
| **No** | **Parameter Name** | **Values (separate** |
| 1 | Name | Send Email Reminder |
| 2 | Description | This use case allows the system to send notification emails to pending approver or pending clarification staff that require their attention. |
| 3 | Trigger | Daily at 1:00PM |
| 4 | Action | Start a program |
| 5 | Program / Script | Choose program “Send Email Reminder” |
| 6 | Add arguments | optional |
| 7 | Start In | optional |