

**Capstone Project Report**

**Report 3 – Software Requirement Specification**

– Ho Chi Minh City, January 2021 –

**Table of Contents**

[I. Project Report 3](#_Toc50989330)

[1. Status Report 3](#_Toc50989331)

[2. Team Involvements 3](#_Toc50989332)

[3. Issues/Suggestions 3](#_Toc50989333)

[II. System Requirement Specification 4](#_Toc50989334)

[1. Overall Description 4](#_Toc50989335)

[1.1 Product Overview 4](#_Toc50989336)

[1.2 Business Rules 5](#_Toc50989337)

[2. User Requirements 6](#_Toc50989338)

[2.1 Overview 6](#_Toc50989339)

[2.2 <<Feature Name 1 – i.e Order Meals>> 7](#_Toc50989340)

[2.3 <<Feature name 2 – i.e: Meal Subscriptions>> 10](#_Toc50989341)

[2.4 <<Next Feature Name..>> 11](#_Toc50989342)

[3. Functional Requirements 12](#_Toc50989343)

[3.1 System Functional Overview 12](#_Toc50989344)

[3.2 <<Feature Name 1>> 14](#_Toc50989345)

[3.3 <<Feature Name 2>> 14](#_Toc50989346)

[4. Non-Functional Requirements 15](#_Toc50989347)

[4.1 External Interfaces 15](#_Toc50989348)

[4.2 Quality Attributes 16](#_Toc50989349)

[5. Other Requirements 18](#_Toc50989350)

[5.1 Appendix1 - Messages List 18](#_Toc50989351)

[5.2 Appendix2 - … 18](#_Toc50989352)

[5.3 … 18](#_Toc50989353)

# I. Project Report

## 1. Status Report

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Work Item** | **Status** | **Notes (Work Item in Details)** |
| 1 |  | Pending |  |
| 2 |  | In Progress |  |
| 3 |  | Completed |  |

## 2. Team Involvements

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Task** | **Member** | **Notes (Task Details, etc.)** |
| 1 |  | HaPTN |  |
| 2 |  | NguyenLG |  |
| 3 |  | GiaNH |  |
| 4 |  | ~~PhuVT~~ | Dropped since January 28th, 2021 |

## 3. Issues/Suggestions

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Issue** | **Status** | **Notes (Solution, Suggestion, etc.)** |
| 1 |  | Pending |  |
| 2 |  | In Progress |  |
| 3 |  | Completed |  |

# II. Software Requirement Specification

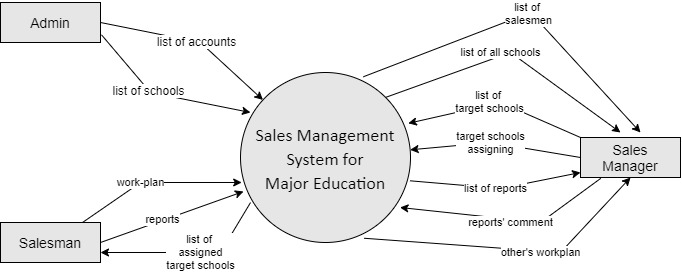
## 1. Overall Description

### 1.1 Product Overview

The Sales Management System for Major Education is a new software system that replaces the current manual working processes for managing target schools, managing salesmen, collecting daily reports, and planning work-plan in the Sales Department of Major Education.

The system context diagram below demonstrates the human components (actors) and external systems that interacted with SMSME for release 1.0.

The SMSME is expected to automate the existing manual workflow of Major Education and increase the working productivity of Major’s staffs by giving motivation between them.



*Figure 1. System Context Diagram*

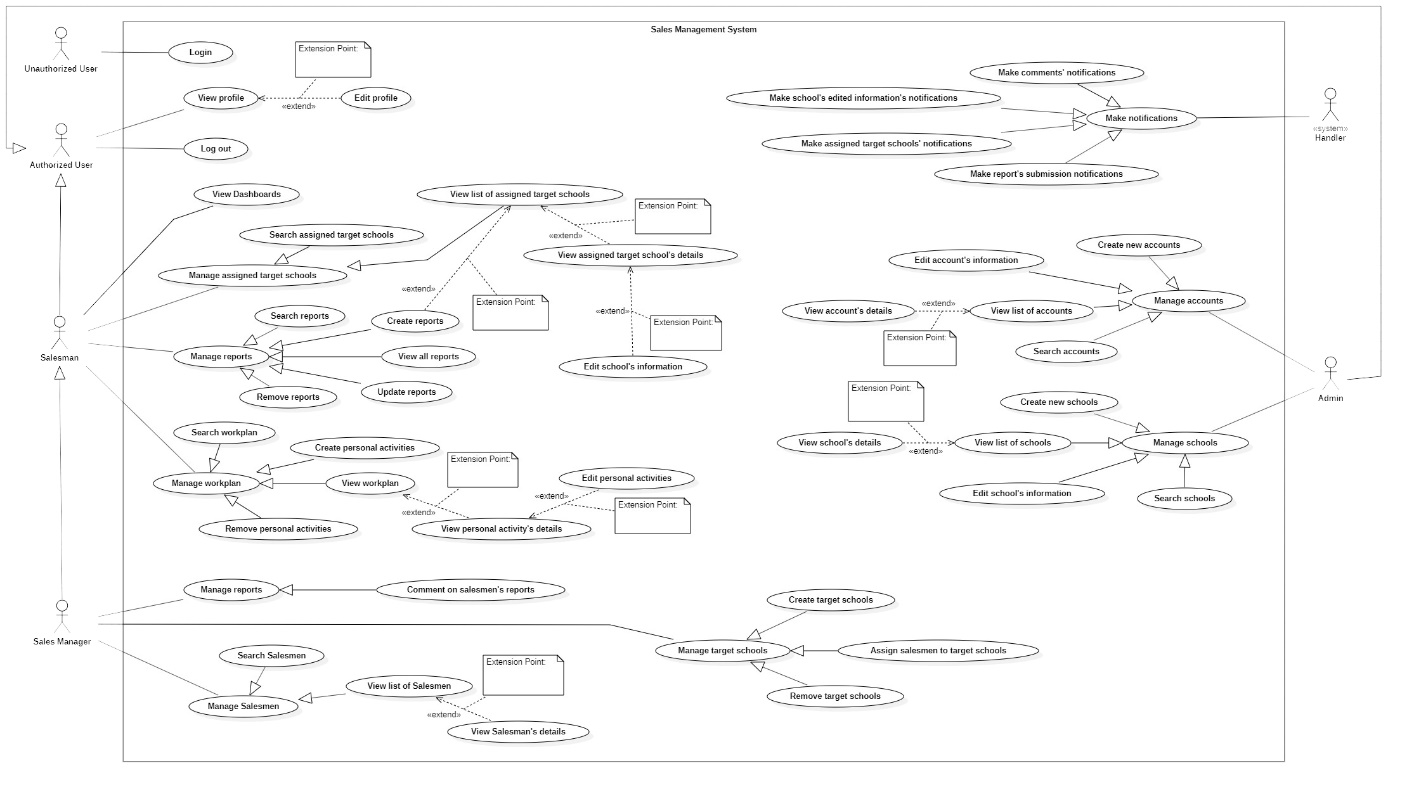
### 1.2 Business Rules

|  |  |
| --- | --- |
| ID | Rule Definition |
| BR-01 | Users shall not register an account. Only Administrators can create new accounts for users. |
| BR-02 | Users shall not have function “Forgot password”. Users must request directly to Administrators and only Administrators can reset users’ forgotten passwords. |
| BR-03 | Users (all roles) can view and edit their profile, including updating basic information (email, phone number, address, birthdate, gender), updating avatar and changing password.  Users shall not edit fields “username” and “working status” (“active”/“inactive”). |
| BR-04 | When an employee quits his/her job or moves to another department, Administrators shall changes his/her “working status” from “active” to “inactive”. |
| BR-05 | Users whose “working status” is “inactive” shall not log into the system. |
| BR-06 | Administrators shall not edit field “username” of the existed accounts. |
| BR-07 | Administrators manage the database of all accounts and schools in the system. |
| BR-08 | There are two phases in every school year.  Every phase, Sales Managers shall extract a list of schools from database of all schools to create lists of “target schools”. |
| BR-09 | Sales Managers shall create lists of target schools before or during phase time/school year. |
| BR-10 | Sales Managers can modify (add, remove, update details or assign) lists of target schools before or during phase time/school year. |
| BR-11 | Sales Managers shall not modify (add, remove, update details or assign) lists of target schools in the past. |
| BR-12 | Sales Managers and Sales Supervisor shall assign Salesmen to target schools. |
| BR-13 | Each target school shall be assigned to only one Salesman at a time. |
| BR-14 | A target school can be assigned many times to different Salesmen. |
| BR-15 | A target school can be unassigned. |
| BR-16 | In a phase/school year, a Salesman can be assigned to ~~no~~ or many target schools. |
| BR-17 | When Salesmen are assigned to target schools, a notification shall be sent to them. |
| BR-18 | When Sales Managers change the person in charge (PIC) of a target school, notifications shall be sent to both current and new PIC. |
| BR-19 | Only Sales Managers can view list of all target schools.  Salesmen can only view list of their own assigned schools. |
| BR-20 | Target schools are divided into two groups of customer types: “old” and “new”. |
| BR-21 | Business trips to each target school have different purposes, depends on that school’s customer group (old/new). |
| BR-22 | Major’s Sales Department applies the “*Seven-step B2B Sales Process*” as a workflow of the first sales. That process is a guideline and states what to do step-by-step each time a Salesman visits a new target school. |
| BR-23 | Salesmen shall visit their assigned schools. After every business trip to the target schools, Salesmen shall submit a daily report. |
| ~~BR-24~~ | ~~One daily report is only recorded one school.~~  ~~If a Salesman visit~~ *~~n~~* ~~target schools in one day, he/she need to submit~~ *~~n~~* ~~daily reports for that day.~~ |
| BR-25 | Salesmen shall successfully meet school’s representatives (principals) of at least 3 new target schools every working day. |
| BR-26 | At the end of phase/school year, if some target schools have not agreed to collaborate with Major yet, the Sales Department will hold a meeting so all Sales Managers and Salesmen can discuss to decide which target schools will be moved into lead nurturing tactics.  Sales Managers can mark a target school as a lead or not.  Salesmen shall not have this function. |
| BR-27 | Salesmen shall not create reports for a date in the past or the future.  The reported date is current date. |
| ~~BR-28~~ | ~~When Salesmen submit daily reports, notifications shall be sent to Sales Managers.~~ |
| BR-29 | List of all reports is shared, so any Salesmen or Sales Managers can view it. |
| BR-30 | Sales Managers and Sales Supervisors can comment on other Salesmen’s or Sales Managers’ reports, and shall not comment on their own reports. |
| BR-31 | When Sales Managers comment on reports, notifications shall be sent to the corresponding Salesman or Sales Manager. |
| BR-32 | Sales Managers can only edit or remove comments in the current phase/school year. |
| BR-33 | Salesmen shall not have the function “Comment on reports”. |
| ~~BR-34~~ | ~~One report can have a maximum of one comment.~~ |
| BR-35 | Salesmen and Sales Managers shall not update or remove reports of other Salesmen or Sales Managers. |
| BR-36 | Salesmen can update and remove their own reports only if those reports have not been commented on by Sales Managers yet. |
| BR-37 | Salesmen can only update or remove their own reports in the current phase/school year, not in the past. |
| BR-38 | After a business trip to the target schools, if Salesmen collect some information different from existed school’s details, Salesmen can edit those school’s data. |
| ~~BR-39~~ | ~~All modifications in the school’s details shall be notified to Administrators.~~ |
| BR-40 | History of modification in school’s details shall be recorded. |
| BR-41 | Each Salesman or Sales Manager has his/her own work-plan. Anyone can search to view work-plan of the others. |
| BR-42 | An item in work-plan is called “personal activity”.  Both Salesmen and Sales Managers shall not modify (create, edit or remove personal activities) work-plan of the others. |
| BR-43 | Personal activities shall only be created at the current datetime or at a time in the future, shall not be in the past. |
| BR-44 | Salesmen or Sales Managers can only edit or remove personal activities in the current phase/school year. |
| BR-45 | A personal activity has three statuses: “pending” (not started yet or in progress), “completed” and “failed”. |
| BR-46 | When users create a personal activity, the default status shall be “pending”. |
| BR-47 | Any personal activity has endtime.  When the current time reaches endtime, if users have not marked that personal activity as completed, the default status shall be changed into “failed”, otherwise the default status shall be “completed”. |
| BR-48 | Sales Managers supervise Salesmen via daily reports, work-plan and working history (history of assigned schools and their corresponding reports). |
| BR-49 | Sales Managers may play a role as a Salesman, so they may also have their own list of assigned schools, visit target schools, submit daily reports and plan on work-plan. |
|  | ….. |
|  | **Hỏi thêm / Confirm lại với Major** |
|  | Hiện tại anh chị muốn phân thành mấy role?  Hiện tại sẽ chỉ hỗ trợ 3 role là Salesman, Sales Manager và Admin thì đã đủ chưa? |
|  | Ai sẽ đóng vai trò Admin? |
|  | Danh sách trường từ đâu mà có? Ai gửi xuống? |
|  | Nếu có thay đổi thông tin trường trong DS đó thì ai là người được cập nhật?  Nếu Salesmen tự update/edit thì có cần phải chờ Admin approve thì những thay đổi đó mới được cập nhật vào DB tổng không hay chỉ cần log lại ai sửa gì là đủ rồi? |
|  |  |
|  | Comment trong report được mấy người comment? |
|  | Có cần người lưu lại tên ai comment không? |
|  | Báo cáo phải nộp đúng ngày hay ngày nào nộp cũng được? |
|  | Report nộp r có cho update/sửa lại không? |
|  | Không cho forget password và không cho tự register vì là nội bộ. Nếu muốn tạo thì tự gặp liên hệ Admin. |
|  |  |
|  | … (anh bổ sung thêm nha) |

## 2. User Requirements

### 2.1 Overview

#### Use Case Diagram



*Figure 2. Use case Overview*

#### System Actors

|  |  |  |
| --- | --- | --- |
| **#** | **Actor** | **Description** |
| 1 | Unauthorized User | The people who have not logged into the system yet. |
| 2 | Authorized User | The people who have logged into the system with the account (Administrator, Salesman, Sales Manager).  All functions of this user are general functions that a normal user can do without considering the role. |
| 3 | Administrator | The Administrators manage data of all accounts and all schools in the system. |
| 4 | Salesman | The Salesman has business trips to target schools for many purposes, including introducing and selling Major Education’s programs to target schools for cooperation. |
| 5 | Sales Manager | * Sales Manager manages target schools, Salesmen and supervises salesmen’s reports and work-plans. * Sales Manager also plays a role as Salesman, including business trips. |
| 6 | <<system>> Handler | The <<system>> Handler handles the internal processes. |

#### Use Cases List

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Use Case** | **Primary Actors** | **Secondary Actors** |
| UC-01 | Login | Unauthorized User |  |
| UC-02 | View Profile | Authorized User,  Salesman,  Sales Manager,  Administrator |  |
| UC-03 | Edit Profile | Authorized User,  Salesman,  Sales Manager,  Administrator |  |
| UC-04 | Logout | Authorized User,  Salesman,  Sales Manager,  Administrator |  |
|  | ***Make notifications*** | | |
| UC-05 | Make assigned target schools’ notifications | <<system>> Handler | Sales Manager |
| UC-06 | Make report’s submission notifications | <<system>> Handler | Sales Manager |
| UC-07 | Make comments’ notifications | <<system>> Handler | Salesman |
| UC-08 | Make school’s edited information’s notifications | <<system>> Handler | Administrator |
|  | ***Manage accounts*** | | |
| UC-09 | Create new accounts | Administrator |  |
| UC-10 | View list of accounts | Administrator |  |
| UC-11 | View account’s details | Administrator |  |
| UC-12 | Edit account’s information | Administrator |  |
| UC-13 | Search accounts | Administrator |  |
|  | ***Manage schools*** | | |
| UC-14 | Create new schools | Administrator |  |
| UC-15 | View list of schools | Administrator |  |
| UC-16 | View school’s details | Administrator |  |
| UC-17 | Edit school’s information | Administrator |  |
| UC-18 | Search schools | Administrator |  |
| UC-19 | View Dashboards | Salesman,  Sales Manager |  |
|  | ***Manage assigned target schools*** | | |
| UC-20 | Search assigned target schools | Salesman,  Sales Manager |  |
| UC-21 | View list of assigned target schools | Salesman,  Sales Manager |  |
| UC-22 | View assigned target school's details | Salesman,  Sales Manager |  |
| UC-23 | Edit school's information | Salesman,  Sales Manager |  |
|  | ***Manage reports*** | | |
| UC-24 | Create reports | Salesman,  Sales Manager |  |
| UC-25 | Search reports | Salesman,  Sales Manager |  |
| UC-26 | View all reports | Salesman,  Sales Manager |  |
| UC-27 | View report’s details | Salesman,  Sales Manager |  |
| UC-28 | Update reports | Salesman,  Sales Manager |  |
| UC-29 | Remove reports | Salesman,  Sales Manager |  |
|  | ***Manage workplan*** | | |
| UC-30 | Create personal activities | Salesman,  Sales Manager |  |
| UC-31 | Search workplan | Salesman,  Sales Manager |  |
| UC-32 | View workplan | Salesman,  Sales Manager |  |
| UC-33 | View personal activity's details | Salesman,  Sales Manager |  |
| UC-34 | Edit personal activities | Salesman,  Sales Manager |  |
| UC-35 | Remove personal actitivities | Salesman,  Sales Manager |  |
|  | ***Manage target schools*** | | |
| UC-36 | Create target schools | Sales Manager |  |
| UC-37 | Assign salesmen to target schools | Sales Manager |  |
| UC-38 | Remove target schools | Sales Manager |  |
|  | ***Manage reports*** | | |
| UC-39 | Comment on salesmen's reports | Sales Manager |  |
|  | ***Manage Salesmen*** | | |
| UC-40 | Search salesmen | Sales Manager |  |
| UC-41 | View list of salesmen | Sales Manager |  |
| UC-42 | View salesman's details | Sales Manager |  |

### 2.2 <<Unauthorized User>> Overview Use Case



#### Login https://f17-zpc.zdn.vn/2368404003870446611/9512f79f93f360ad39e2.jpg

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-01 Login** | | | | |
| Created By: | GiaNH | | Date Created: | 05/02/2021 |
| Primary Actor: | Unauthorized User | | Secondary Actors: | N/A |
| Description: | This use case allows the user to log into the system to use the services of the system. | | | | |
| Trigger: | The user clicks on the “Login” button on the Login screen. | | | | |
| Preconditions: | PRE-1. The user has to own an account with a username and password.  PRE-2. The user has not logged into the system yet. | | | | |
| Post-conditions: | POST-1. The user successfully logs into the system, and be redirected to the Home screen. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user opens the login view in web browsers. | | The system requires identifying information from the user:   * Username: text input, required. * Password: text input, required. | |
| 2 | The user inputs into the “username” and “password” fields on Login form. | | [Exception 1] | |
| 3 | The user clicks on “Login” button. | | The system allows the user to access into and redirects to the corresponding Home screen (based on the role of user).  [Exception 2]  [Exception 3] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user inputs invalid format content into the “username” and “password” fields. | | The system shows the error message: “Please input the valid username and password”. | |
| 2 | The user inputs the wrong username or password. | | The system shows the error message: “Wrong username or password”. | |
| 3 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * The required information are username, password. * The username must be 8 – 30 characters length and must not include special characters. * The password must be 8 – 30 characters length and must be hash encrypted. * Time out for login screen is less than 180 seconds. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

### https://f16.photo.talk.zdn.vn/2912878202032592742/42a05042332ec070993f.jpg<<Authorized User>> Overview Use Case

#### View profile



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-02 View profile** | | | | |
| Created By: | GiaNH | | Date Created: | 05/02/2021 |
| Primary Actor: | Authorized User | | Secondary Actors: | N/A |
| Description: | This use case allows the user to view his/her profile. | | | | |
| Trigger: | The user selects “Profile” command in the options menu under the user avatar (at the top right corner of the screen). | | | | |
| Preconditions: | PRE-1. The user has been logged into the system. | | | | |
| Post-conditions: | POST-1. The user’s information is displayed in details as a form. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user clicks on the avatar on the right corner of the topbar and selects “Profile” command. | | The system redirects to the “Profile” page. The detail information of the user is displayed on the screen.  [Exception 1] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Edit profile



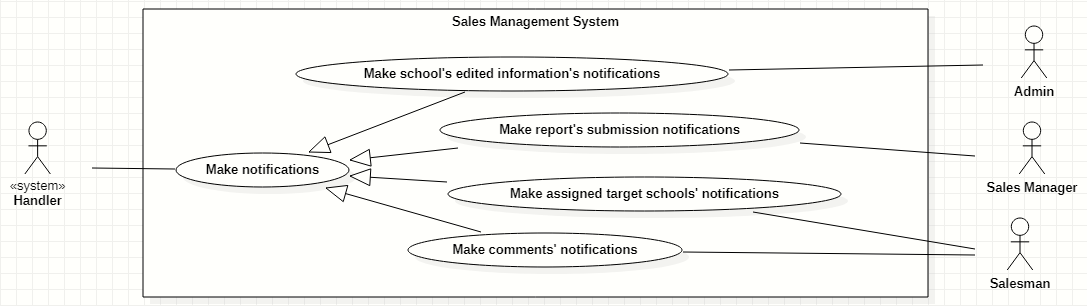
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-03 Edit profile** | | | | |
| Created By: | GiaNH | | Date Created: | | 05/02/2021 |
| Primary Actor: | Authorized User | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to edit his/her profile. | | | | |
| Trigger: | The user clicks on the button link “Edit”. | | | | |
| Preconditions: | PRE-1. The user has been logged into the system.  PRE-2. The user is at the “Profile” screen. | | | | |
| Post-conditions: | POST-1. The user’s information is edited in the system. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | On Profile screen, the user clicks on the button link “Edit” at the right of the information row that he/she wants to edit.  [Alternative 1 ] | | At the selected row, the system opens the collapsed div to show the text field with the following format:   * “Password”: text. * “Address”: text. * “Email”: text. * “Birthdate”: date. * “Gender”: two radio buttons, required, only select one. * “Phone” text. * “Avatar”: image. | |
| 2 | The user inputs the information into the selected text field. | | [Exception 1]  [Exception 2]  [Exception 3] | |
| 3 | The user selects “Save” button. | | The system shows the dialog to request for editing confirmation. | |
| 4 | The user selects “Yes” button to confirm updating.  [Exception 4] | | The system shows the successful message: “Done”.  [Exception 5] | |
| Alternative Flows: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “Edit” button at “Password” line. | | The system shows the accordion that contains following information:  -“Current Password”: text, required.  -“New Password”: text, required.  -“Confirm New Password”: text, required.  *Continue to step 2 of Normal Flow*. | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user inputs invalid format content into fields. | | The system shows the error message: “Please input the valid format content”. | |
| 2 | The user inputs the wrong old password. | | The system shows the error message: “Your password is incorrect”. | |
| 3 | The user inputs the confirm-new password that does not match to new password. | | The system shows the error message: “You must enter the same password twice in order to confirm it”. | |
| 4 | The user selects “No” button to cancel updating. | | The system returns the “Profile” screen. | |
| 5 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | High. | | | | |
| Frequency of Use: | Usually. | | | | |
| Business Rules: | All fields related to “password” must be 8 – 30 characters length and must be hash encrypted. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Logout

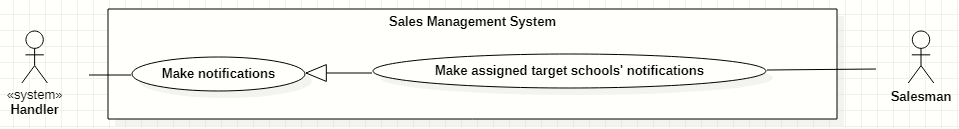


|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-04 Logout** | | | | | |
| Created By: | GiaNH | | Date Created: | 05/02/2021 | |
| Primary Actor: | Authorized User | | Secondary Actors: | N/A | |
| Description: | This use case allows the users log out of the system. | | | | | |
| Trigger: | The user selects “Logout” command in the options menu under the user avatar (at the top right corner of the screen). | | | | | |
| Preconditions: | PRE-1. The user has been log into the system. | | | | | |
| Post-conditions: | POST-1. The user logs out the system. | | | | | |
| Normal Flow: | **Step** | **Actor Action** | | | **System Response** | |
| 1 | The user clicks on the avatar on the header and selects the “Logout” command. | | | The system shows the confirm dialog. | |
|  | 2 | The user selects “Yes” to confirm logging out.  [Exception 1] | | | The system returns the “Login” screen. | |
| Alternative Flows: | N/A | | | | | |
| Exceptions: | **No** | **Cause** | | | **System Response** | |
| 1 | The user selects “No” button to cancel logging out. | | | The system returns the current working screen. | |
| Priority: | Normal. | | | | | |
| Frequency of Use: | Usually | | | | | |
| Business Rules: | User’s token is removed in client and the session is destroyed in server. | | | | | |
| Other Information: | N/A | | | | | |
| Assumptions: | N/A | | | | | |

### <<System Handler>> Overview Use Case

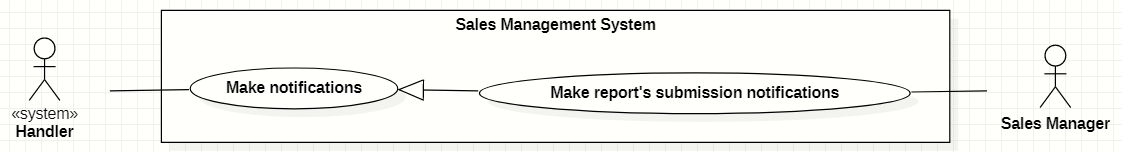
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#### Make assigned target schools’ notifications

****

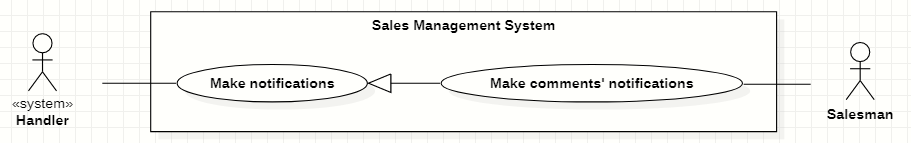
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-05 Make assigned target schools’ notifications** | | | | |
| Created By: | HaPTN | | Date Created: | | 05/03/2021 |
| Primary Actor: | System Handler | | Secondary Actors: | | Salesman |
| Description: | This use case allows Salesmen to receive notifications when they are assigned to target schools. | | | | |
| Trigger: | When the Sales Manager assign a Salesman to a target school. | | | | |
| Preconditions: | PRE-1. Sales Managers assign Salesmen to target schools successfully. | | | | |
| Post-conditions: | POST-1. The system notifies Salesmen that they have just been assigned to target schools. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 |  | | System handler retrieves response of use case UC-37. | |
| 2 |  | | System handler sends a notification to account of Salesman who have just been assigned to target schools. | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | N/A | | | | |
| Priority: | Low | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | BR-13, BR-14, BR-15, BR-17, BR-18 | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Make report’s submission notifications

******

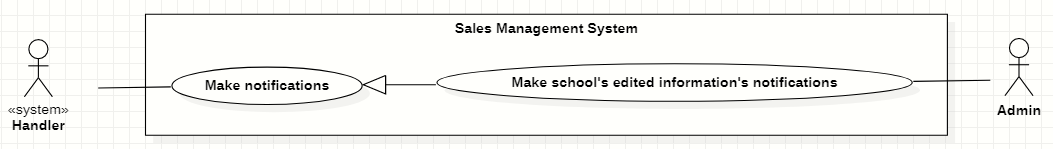
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-06 Make report’s submission notifications** | | | | |
| Created By: | HaPTN | | Date Created: | | 05/03/2021 |
| Primary Actor: | System Handler | | Secondary Actors: | | Sales Manager |
| Description: | This use case allows Sales Managers to receive notifications when Salesmen submit daily reports. | | | | |
| Trigger: | When Salesmen submit daily reports. | | | | |
| Preconditions: | PRE-1. Salesmen submit daily reports successfully. | | | | |
| Post-conditions: | POST-1. The system notifies Sales Managers that Salesmen have just submit daily reports. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 |  | | System handler retrieves response of use case UC-24. | |
| 2 |  | | System handler sends a notification to all Sales Managers to inform a report’s submission. | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | N/A | | | | |
| Priority: | Low | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | … | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Make comments’ notifications



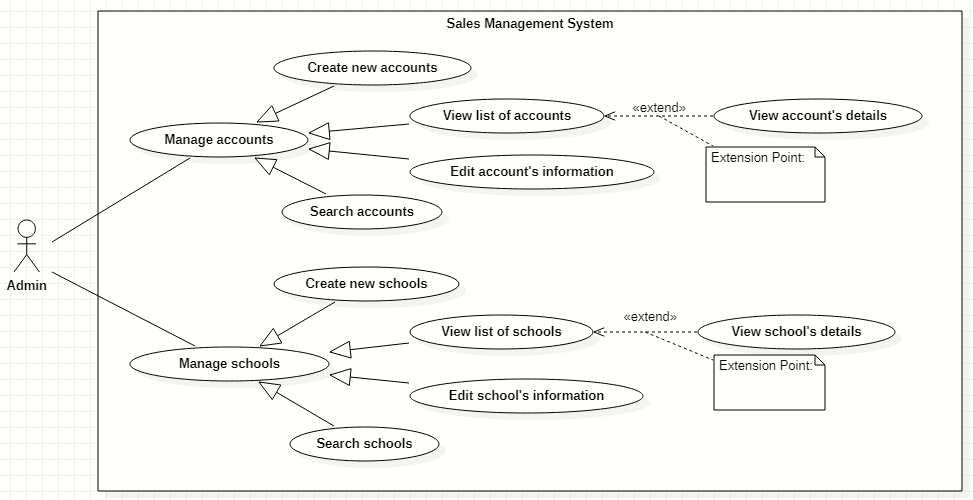
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-07 Make comments’ notifications** | | | | |
| Created By: | GiaNH | | Date Created: | | 15/02/2021 |
| Primary Actor: | System Handler | | Secondary Actors: | | Salesman |
| Description: | This use case allows the system handler to make comment notification to Salesman. | | | | |
| Trigger: | The System takes adding comment of report successfully. | | | | |
| Preconditions: | PRE-1. The Manager just commented a report of the target Salesman. | | | | |
| Post-conditions: | POST-1. The comment notification is sent to Salesman. | | | | |
| Normal Flow: | **Step** | **Actor Actions** | | **System Response** | |
| 1 |  | | The System handler retrieves comment’s adding request. | |
| 2 |  | | The System handler retrieves notification information and sends to Salesman. | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | N/A | | | | |
| Priority: | Low | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | … | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Make school’s edited information’s notifications

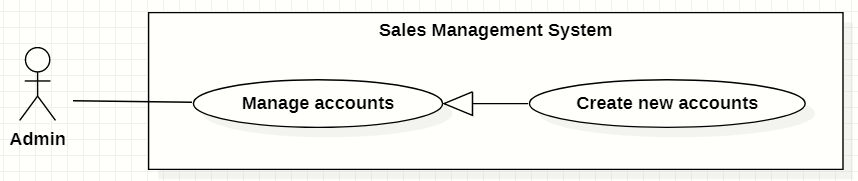


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| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-08 Make school’s edited information’s notifications** | | | | |
| Created By: | HaPTN | | | Date Created: | 05/03/2021 |
| Primary Actor: | System Handler | | | Secondary Actors: | Admin |
| Description: | This use case allows Admininstrators to receive notifications when Salesmen or Sales Managers edit school’s details. | | | | |
| Trigger: | When Salesmen or Sales Managers edit school’s details. | | | | |
| Preconditions: | PRE-1. The schools have existed in the database.  PRE-2. School’s details were changed by Salesmen or Sales Managers. | | | | |
| Post-conditions: | POST-1. The system notifies Admin about changes and who made changes. | | | | |
| Normal Flow: | **Step** | **Actor Actions** | **System Response** | | |
| 1 |  | The System Handler retrieves changes in school’s details and name of who made changes (see *UC-23*). | | |
| 2 |  | System Handler sends a notification to all Administrators to inform about modifications in school’s details. | | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | N/A | | | | |
| Priority: | Low | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: |  | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

### <<Administrator>> Overview Use Case



#### Create new accounts



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-09 Create new accounts** | | | | |
| Created By: | GiaNH | | Date Created: | | 15/02/2021 |
| Primary Actor: | Admin | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to add new account. | | | | |
| Trigger: | The user clicks on the “Create” button in “Accounts” screen. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Accounts” screen. | | | | |
| Post-conditions: | POST-1. The new account is added in the system. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “Accounts” command on the navigator bar. | | The system redirects the Manage Accounts screen. | |
| 2 | The user selects on “Add” button in screen. | | The system displays the “Add” form with the following required information:   * “Username”: input text filed, required. * “Password”: input password text field, required. * “Confirm password: input password text field, required. * “Role”: selections (Salesman- Sales Manager- Admin). * “Full name”: input text field, required. * “Email”: input text field. * “Phone”: input text field, required. * “Gender”: radio buttons, required. * “Birthdate”: date picker. * “Address”: input text field. | |
| 3 | The user inputs into required information fields. | | [Exception 1]  [Exception 2] | |
| 4 | The user selects on the “Save” button.  [Exception 4] | | The system shows the successful message: “Done”.  [Exception 3]  [Exception 5] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user leaves the blank fields or inputs the invalid format content. | | The system shows the error message: “Please input the valid format content”. | |
| 2 | The content that the user inputs into “Confirm password” is not matched the “Password” field. | | The system show the error message: “Confirm password is not matched the password”. | |
| 3 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| 4 | The user selects “Cancel” button. | | The system closes the “Create Account” view and returns the “Account” screen. | |
| 5 | The content that the user inputs into “username” field is duplicate in the system. | | The system shows the error message: “The username has already existed”. | |
| Priority: | High | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * The username must be 8 – 30 characters, not include special characters. * The password must be 8 – 30 characters and must be hash encrypted by Bcript. * The email must be validate with Regular Expression. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View list of accounts



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-10 View list of accounts** | | | | |
| Created By: | GiaNH | | Date Created: | | 15/02/2021 |
| Primary Actor: | Admin | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view accounts list. | | | | |
| Trigger: | The user selects the “Manage account” in navigator bar. | | | | |
| Preconditions: | PRE-1. The user has been log into system. | | | | |
| Post-conditions: | POST-1. The list of Accounts is shown as a table on the “Manage Accounts” screen. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “Manage Accounts” command on the navigator bar. | | The system redirects the Manage Accounts screen. | |
| 2 |  | | The list of Accounts is shown as a table on the Manage Accounts screen. | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The data is null or empty in database. | | The system displays “No data” line on the table. | |
| Priority: | Medium | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View account’s details



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-11 View account’s details** | | | | |
| Created By: | GiaNH | | Date Created: | | 16/02/2021 |
| Primary Actor: | Admin | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view the detail information of Salesmen. | | | | |
| Trigger: | The user clicks on the “View details” command on Salesman row. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Manage Accounts” screen. | | | | |
| Post-conditions: | POST-1. The detail information of account is shown as a form. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | In the “Manage Accounts” screen from the List of Accounts table, the user selects the account row and selects “View detail” command. | | The system displays “Account’s details” view, the Account’s information is displayed as a form. | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | N/A | | | | |
| Priority: | Medium | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Edit account’s information



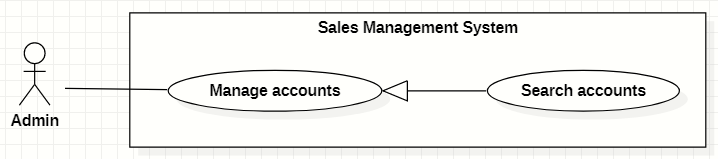
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| --- | --- | --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-12 Edit account’s information** | | | | | | |
| Created By: | GiaNH | | | Date Created: | | | 16/02/2021 |
| Primary Actor: | Admin | | | Secondary Actors: | | | N/A |
| Description: | This use case allows the users to edit the account’s information. | | | | | | |
| Trigger: | The user selects Edit command in “Account’s details” page. | | | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Account’s details” screen. | | | | | | |
| Post-conditions: | POST-1. The Account information is edited in database. | | | | | | |
| Normal Flow: | **Step** | | **Actor Action** | | | **System Response** | |
| 1 | | On “Account’s details” screen, the user selects “edit” button in the information row that he wants to edit. | | | The system displays the “Edit” form with the following required information:   * “Current Password”: input password text field, required. * “New Password”: input password text field, required. * “Confirm new password: input password text field, required. * “Full name”: input text field, required. * “Email”: input text field. * “Phone”: input text field, required. * “Gender”: radio buttons, required. * “Birthdate”: date picker. * “Address”: input text field. | |
| 2 | | The user inputs new contents in this row. | | | [Exception 1]  [Exception 2] | |
| 3 | | The user clicks “save” button when finish.  [Exception 3] | | | The system has successful edit and displays the message. [Exception 4] | |
| Alternative Flows: | N/A | | | | | | |
| Exceptions: | **No** | **Cause** | | | **System Response** | | |
| 1 | The user inputs invalid format content into fields. | | | The system informs the users that the content of fields is invalid format. | | |
| 2 | The content that the user inputs into “Confirm new password” does not match the “New password” field. | | | The system show the error message: “Confirm password does not match the password”. | | |
| 3 | The user clicks on “Cancel” button. | | | The system returns “Account’s details” screen. | | |
| 4 | The user’s device does not connect to the Internet or the server has internal error. | | | The system shows the error message: “Connection Failed or Internal Error”. | | |
| Priority: | Medium | | | | | | |
| Frequency of Use: | Usually | | | | | | |
| Business Rules: | N/A | | | | | | |
| Other Information: | N/A | | | | | | |

#### Edit Account’s Information

****

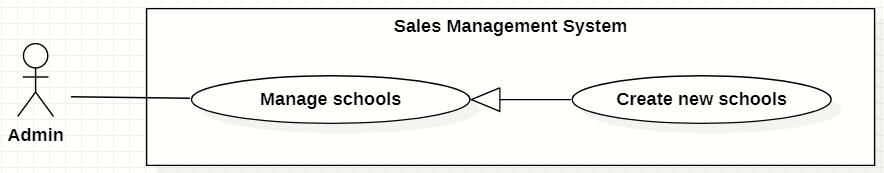
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| --- | --- | --- | --- |
| ID and Name: |  | | |
| Created By: |  | Date Created: | 16/02/2021 |
| Primary Actor: | Admin | Secondary Actors: | N/A |
| Description: | This use case allows the users to edit the school’s information. | | |
| Trigger: | The user selects Edit command in “School’s details” screen. | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the school’s details screen. | | |
| Post-conditions: | POST-1. The School’s is edited in database. | | |
| Normal Flow: | 1. **Edit Profile** 2. On “School’s details” screen, the user selects “edit” button in the information row that his want to edit. 3. The user input new content in this row. (see **37.0.E2, 37.0.E3**) 4. The user clicks “save” button when finish. (see **37.0.E1**) 5. The system has successful edit and displays the message. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **37.0.E1 The user clicks on cancel button**.  1. The system returns “Manage schools” screen.  **37.0.E2 The user inputs invalid format content into fields.**  1. The system informs The users that the content of fields is invalid format.  2a. The user selects try again command. Return to step 3 Normal Flow.  2b. The user selects cancel adding command. The Use case ends.  **37.0.E3 The user inputs existed and unique information into fields.**  1. The system informs The users that the content of fields is existed.  2a. The user selects try again command. Return to step 3 Normal Flow.  2b. The user selects cancel adding command. The Use case ends. | | |
| Priority: | Medium | | |
| Frequency of Use: | Usually | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |

#### Search accounts



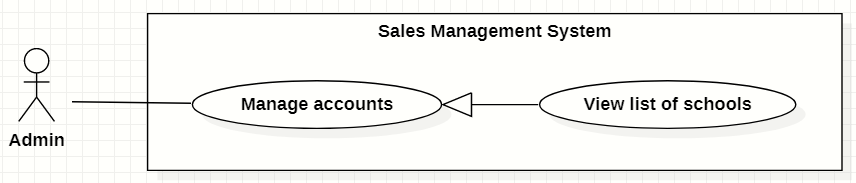
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| --- | --- | --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-13 Search accounts** | | | | | | |
| Created By: | GiaNH | | | Date Created: | | | 16/02/2021 |
| Primary Actor: | Admin | | | Secondary Actors: | | | N/A |
| Description: | This use case allows the users to find the accounts based on The username, phone, address, … | | | | | | |
| Trigger: | The user selects “Search Accounts” command on the “Manage Accounts” screen. | | | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on “Manage Account” screen. | | | | | | |
| Post-conditions: | POST-1. The list of accounts is shown. | | | | | | |
| Normal Flow: | **Step** | | **Actor Action** | | **System Response** | | |
| 1 | | The user input the search field or select searching filters intoolbar to find Accounts. | | The system displays the list of Accounts as the table. | | |
| Alternative Flows: | N/A | | | | | | |
| Exceptions: | **No** | **Cause** | | | | **System Response** | |
| 1 | The content of search field or selecting filter that the user inputted is not matched any data in database. | | | | The system displays “No data” line. | |
| Priority: | Medium | | | | | | |
| Frequency of Use: | Usually | | | | | | |
| Business Rules: | N/A | | | | | | |
| Other Information: | N/A | | | | | | |
| Assumptions: | N/A | | | | | | |

#### Create new schools

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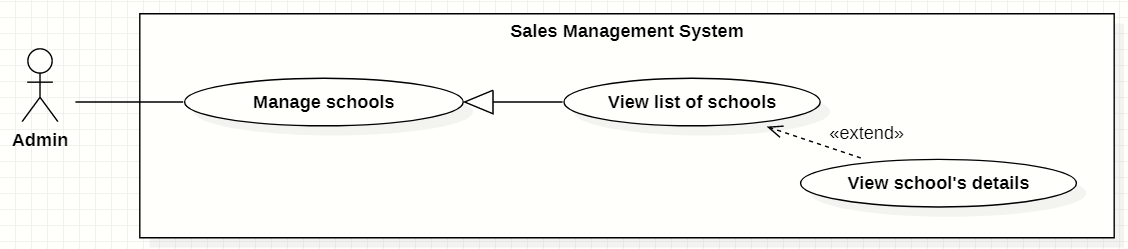
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| --- | --- | --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-14 Create new schools** | | | | | | |
| Created By: | GiaNH | | | Date Created: | | | 16/02/2021 |
| Primary Actor: | Admin | | | Secondary Actors: | | | N/A |
| Description: | This use case allows the user to create new schools. | | | | | | |
| Trigger: | The user clicks on the “Create” button in the Manage Schools screen. | | | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the Manage Schools screen. | | | | | | |
| Post-conditions: | POST-1. The new schools are added in database. | | | | | | |
| Normal Flow: | 1. **Add New Schools.** 2. (see **39.1**) 3. (see **39.0.E2**) 4. (see **39.0.E1, 39.0.E3**) | | | | | | |
| Normal Flow: | **Step** | | **Actor Action** | | **System Response** | | |
| 1 | | On the “Manage Schools” screen, the user clicks on “Add” button.  [Alternative 1] | | The system displays the “Create new schools” form with the following required information:   * “School name”: input text filed, required. * “School phone”: input text field. * “District”: selections, required. * “Address”: input text field. * “School email”: input text field. * “Description”: input text field. * “School type”: selections (Công lập – Ngoài công lập), required. * “Educational level”: selections (Tiểu học – THCS – THPT), required. * “School scale”: selections (Lớn – Vừa – Nhỏ). * “School status”: selections (). * “Full name”: input text field, required. * “Email”: input text field. * “Phone”: input text field, required. * “Gender”: radio buttons, required. | | |
| 2 | | The user inputs into information fields.  [Exception ] | |  | | |
| 3 | | The user selects “Save” button to confirm adding. | | The system responses the successful adding message. | | |
| Alternative Flows: | **Step** | | **Actor Action** | | | **System Response** | |
| 1 | | The user clicks on “Import file” button to add the schools. | | | The system shows on the importing view. | |
| 2 | | The user clicks on “Import file” button on the view. | | | The system displays Windows Explorer to retrieves the file in client device. | |
| 3 | | The user selects the file to import and selects confirm command.  [Exception 4]  [Exception 5] | | | The system responses the successful adding message | |
| Exceptions: | **No** | **Cause** | | | | **System Response** | |
| 1 | The user clicks on cancel button. | | | | The system returns “manage schools” screen. | |
| 2 | The user inputs invalid format content into fields. | | | | The system informs The users that the content of fields is invalid format. | |
| 3 | The user inputs existed and unique information into fields. | | | | The system informs The users that the content of fields is existed. | |
| 4 | The user selects invalid format file – (the valid format is .xls, .xlsx, .csv file) | | | | The system informs The users that the file is invalid format. | |
| 5 | The user selects a file that has the size more than 5MB. | | | | The system informs The users that the file is over size. | |
| Priority: | Medium | | | | | | |
| Frequency of Use: | Usually | | | | | | |
| Business Rules: | N/A | | | | | | |
| Other Information: | N/A | | | | | | |
| Assumptions: | N/A | | | | | | |

#### View List of Schools



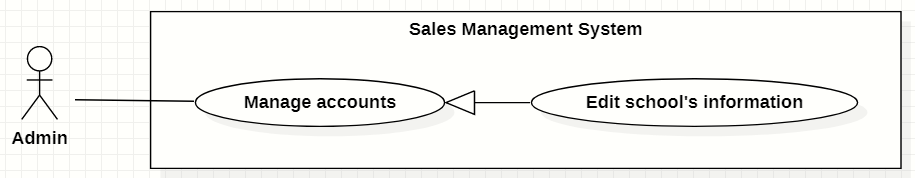
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| --- | --- | --- | --- |
| ID and Name: | **UC-15 View list of schools** | | |
| Created By: |  | Date Created: | 16/02/2021 |
| Primary Actor: | Admin | Secondary Actors: | N/A |
| Description: | This use case allows the user to view schools list. | | |
| Trigger: | The user selects the “Manage Schools” in navigator bar. | | |
| Preconditions: | PRE-1. The user has been log into system. | | |
| Post-conditions: | POST-1. The list of Schools is shown as a table on the “Manage Schools” screen. | | |
| Normal Flow: | 1. **View List of Schools.** 2. The user selects “Manage Schools” command on the navigator bar. 3. The system redirects the Manage Schools screen. 4. The list of Schools is shown as a table on the Manage Schools screen. (see **35.0.E1**) | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **35.0.E1 The data is null in database.**  1. The system displays “No data” line on the table. | | |
| Priority: | Medium | | |
| Frequency of Use: | Usually | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

#### View School’s Details



|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-16 View School’s Details** | | |
| Created By: |  | Date Created: | 16/02/2021 |
| Primary Actor: | Admin | Secondary Actors: | N/A |
| Description: | This use case allows the user to view the detail information of Schools. | | |
| Trigger: | The user clicks on “View detail” command on a School row. | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Manage Schools” screen. | | |
| Post-conditions: | POST-1. The detail information of schools is shown as a form. | | |
| Normal Flow: | 1. **View School’s Details.** 2. In the “Manage Schools” screen from the List of Schools table, the user selects a school row and selects “View detail” command. 3. The system displays “School’s details” view, the School’s information is displayed as a form. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | N/A | | |
| Priority: | Medium | | |
| Frequency of Use: | Usually | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

#### Edit School’s Information



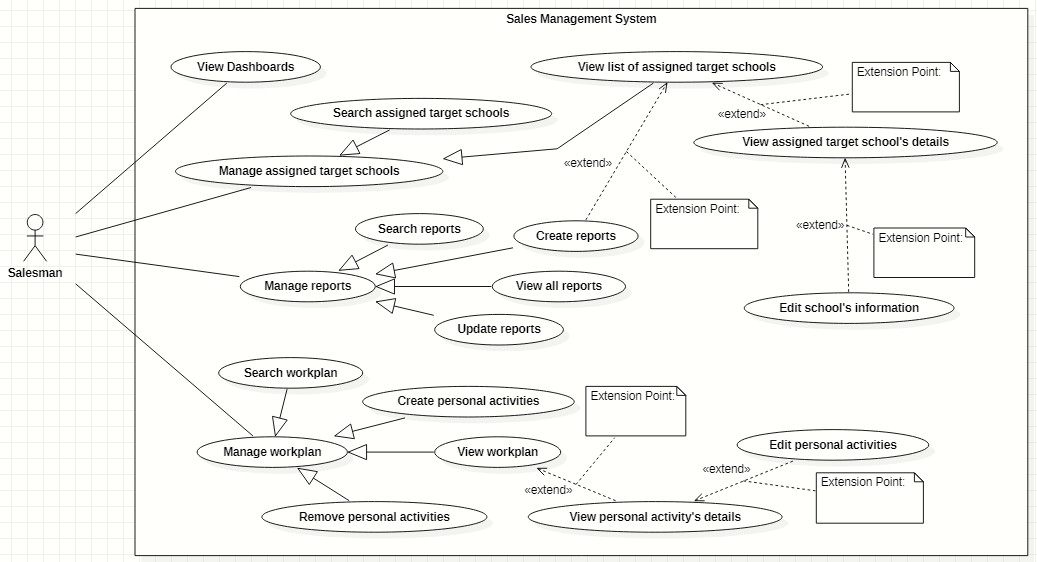
|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-17 Edit School’s Information** | | |
| Created By: |  | Date Created: | 16/02/2021 |
| Primary Actor: | Admin | Secondary Actors: | N/A |
| Description: | This use case allows the users to edit the school’s information. | | |
| Trigger: | The user selects Edit command in “School’s details” screen. | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the school’s details screen. | | |
| Post-conditions: | POST-1. The School’s is edited in database. | | |
| Normal Flow: | 1. **Edit Profile** 2. On “School’s details” screen, the user selects “edit” button in the information row that his want to edit. 3. The user input new content in this row. (see **37.0.E2, 37.0.E3**) 4. The user clicks “save” button when finish. (see **37.0.E1**) 5. The system has successful edit and displays the message. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **37.0.E1 The user clicks on cancel button**.  1. The system returns “Manage schools” screen.  **37.0.E2 The user inputs invalid format content into fields.**  1. The system informs The users that the content of fields is invalid format.  2a. The user selects try again command. Return to step 3 Normal Flow.  2b. The user selects cancel adding command. The Use case ends.  **37.0.E3 The user inputs existed and unique information into fields.**  1. The system informs The users that the content of fields is existed.  2a. The user selects try again command. Return to step 3 Normal Flow.  2b. The user selects cancel adding command. The Use case ends. | | |
| Priority: | Medium | | |
| Frequency of Use: | Usually | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |

#### Search Schools

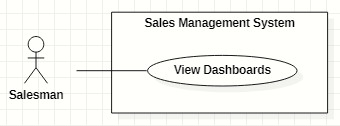


|  |  |  |  |
| --- | --- | --- | --- |
| ID and Name: | **UC-18 Search Schools** | | |
| Created By: |  | Date Created: | 16/02/2021 |
| Primary Actor: | Admin | Secondary Actors: | N/A |
| Description: | This use case allows the users to find the schools based on the name, district, scale, … | | |
| Trigger: | The user selects “Search Schools” command on the “Manage Schools” screen. | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on “Manage Schools” screen. | | |
| Post-conditions: | POST-1. The list of accounts is shown. | | |
| Normal Flow: | 1. **Search Schools.** 2. The user input the search field or select searching filters intoolbar to find Schools. (see **38.0.E1**) 3. The system displays the list of Schools as the table. | | |
| Alternative Flows: | N/A | | |
| Exceptions: | **38.0.E1 The content of search field or selecting filter that The user inputted is not matched any data in database**  1. The system displays “No data” line. | | |
| Priority: | Medium | | |
| Frequency of Use: | Usually | | |
| Business Rules: | N/A | | |
| Other Information: | N/A | | |
| Assumptions: | N/A | | |

### <<Salesman>> Overview Use Case

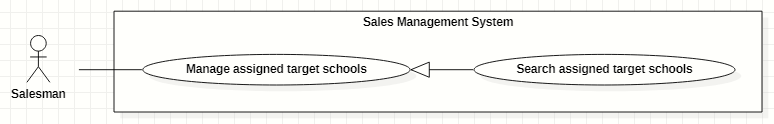


#### View Dashboards



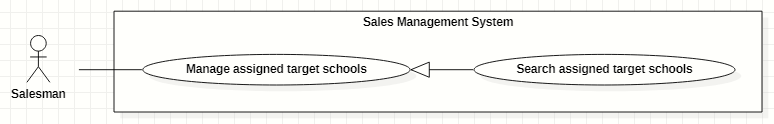
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| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-19 View Dashboards** | | | | |
| Created By: |  | |  | |  |
| Primary Actor: |  | |  | |  |
| Description: |  | | | | |
| Trigger: |  | | | | |
| Preconditions: |  | | | | |
| Post-conditions: |  | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
|  |  | |  | |
| Alternative Flows: |  | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
|  |  | |  | |
|  |  | |  | |
| Priority: | Normal. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: |  | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

1. ***Search assigned target schools***

******

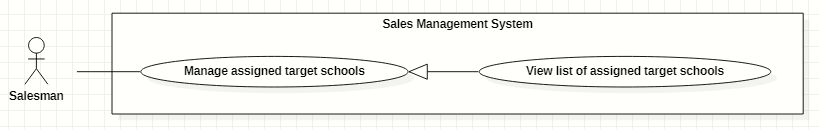
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| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-06 Search assigned target schools** | | | | |
| Created By: |  | | Date Created: | | 7/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the users find the target schools based on the school name, scale, address, type, … | | | | |
| Trigger: | The user selects “Search Target Schools” command. | | | | |
| Preconditions: | PRE-1. The user has been log into the system.  PRE-2. The user is on the “Target Schools” screen. | | | | |
| Post-conditions: | POST-1. The list of target schools is shown as a table. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user goes to the toolbar on “Target schools” screen. | | The system shows on the toolbar with the following selection filters:  -“School year”: selection items | |
| 2 | The user inputs the search field or selects searching filters on toolbar to find target schools. | | The system displays the list of target schools as a table.  [Exception 1]  [Exception 2] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The content of search field or selecting filter that The user inputted is not matched any stored data in the system. | | The system displays “No data” line on the table. | |
| 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * If the search field is blank, the system will show the all assigned target schools of the user. * Default status of all selected filters is “See All”. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Search assigned target schools

****

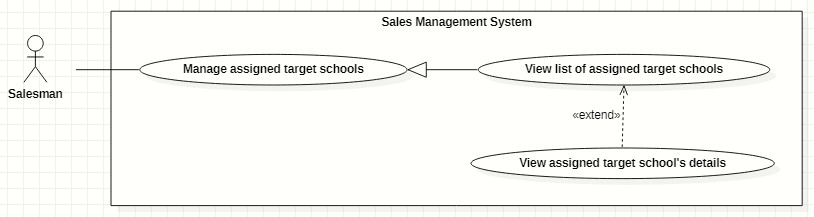
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| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-20 Search assigned target schools** | | | | |
| Created By: |  | | Date Created: | | 07/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view list of his assigned target schools. | | | | |
| Trigger: | The user selects “Target Schools” command in the side bar. | | | | |
| Preconditions: | PRE-1. The user has been log into system. | | | | |
| Post-conditions: | POST-1. The list of target schools is shown as a table. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects the “Target Schools” command on the sidebar. | | The system redirects to the “Target schools” screen and shows the assigned target schools table with following columns:   * “School Name”: text (hyperlink). * “District”: text. * “Principal”: text. * “Purpose”: text. * “Start Date”: text. * “End Date”: text. * “Status”: text. * “Note”: text. * “Action”: menu list (contains commands: “View details”, “View report”, “Create report”)   [Exception 1]  [Exception 2] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | No stored target schools data in the system. | | The system displays “No data” line on the table. | |
| 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: |  | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View list of assigned target schools



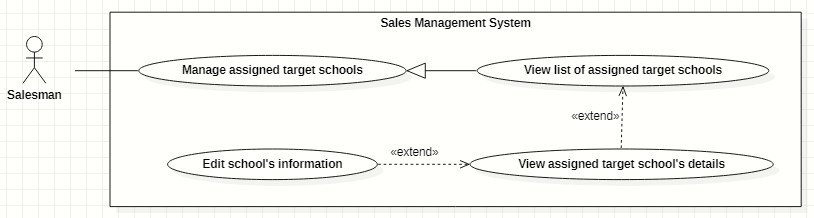
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| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-21 View list of assigned target schools** | | | | |
| Created By: |  | | Date Created: | | 07/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view list of his assigned target schools. | | | | |
| Trigger: | The user selects “Target Schools” command in the side bar. | | | | |
| Preconditions: | PRE-1. The user has been log into system. | | | | |
| Post-conditions: | POST-1. The list of target schools is shown as a table. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects the “Target Schools” command on the sidebar. | | The system redirects to the “Target schools” screen and shows the assigned target schools table with following columns:   * “School Name”: text (hyperlink). * “District”: text. * “Principal”: text. * “Purpose”: text. * “Start Date”: text. * “End Date”: text. * “Status”: text. * “Note”: text. * “Action”: menu list (contains commands: “View details”, “View report”, “Create report”)   [Exception 1]  [Exception 2] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | No stored target schools data in the system. | | The system displays “No data” line on the table. | |
| 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: |  | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View assigned target school’s details



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-22 View assigned target school’s details** | | | | |
| Created By: |  | | Date Created: | | 7/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view the detail information of his assigned target schools. | | | | |
| Trigger: | The user selects “Target School’s Details” command. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on “Target Schools” screen. | | | | |
| Post-conditions: | POST-1. The detail information of target school is shown as a form. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
|  | On list of target schools, the user selects “View details” command on the target schools row. | | The system shows “Target School’s Details” view, the target school’s information is displayed as a form with following information:  [Exception 1] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Edit school’s information

******

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-23 Edit school’s information** | | | | |
| Created By: |  | | Date Created: | | 7/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to. | | | | |
| Trigger: | The user selects “” command in the “Target Schools” screen. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Target Schools” screen. | | | | |
| Post-conditions: | POST-1. The reports list of target school are shown. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 |  | |  | |
| 2 |  | |  | |
| 3 |  | |  | |
| 4 |  | |  | |
| Alternative Flows: | 1. In the target schools detail screen, the user selects the “view history of report” command.   The system display history of report screen, the report list of target school is displayed. (see **8.0.E1**) | | | | |
| Exceptions: | **8.0.E1 The data is null in database.**  1. The system displays “No data” line on the table. | | | | |
| Priority: | Medium | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Create reports



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-24 Create reports** | | | | |
| Created By: |  | | Date Created: | | 8/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to create daily report. | | | | |
| Trigger: | The user selects the “Create” command on “Reports” screen. | | | | |
| Preconditions: | PRE-1. The user has been log into the system.  PRE-2. The user is on the “Reports” screen. | | | | |
| Post-conditions: | POST-1. A new report is created in the system. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects the “Create” button on “Reports” screen.  [Alternative] | | The system shows “Create Report” view that contains following information fields:   * “Target Schools”: input text field, required. * “Date”: date, read only, default is current date. * “Result”: input text field, required. * “Description”: input text field, required. * “Positivity”: input text field. * “Difficulty”: input text field. * “Solution”: input text field. | |
| 2 | The user inputs the information into the required fields. | |  | |
| 3 | The user selects “Submit” button to create a new daily report. | | The system shown the successful message: “Done”.  [Exception 1]  [Exception 2]  [Exception 3] | |
| Alternative Flows: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “Create Report” command on “Target Schools” screen (at UC- 05).  *Continue to step 2 in Normal Flow.* | | The system shows “Create Report” view that contains following information fields:   * “Target Schools”: input text field, required. * “Date”: date, read only, default is current date. * “Result”: input text field, required. * “Description”: input text field, required. * “Positivity”: input text field. * “Difficulty”: input text field.   “Solution”: input text field. | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user leaves the blank fields or inputs invalid format content. | | The system shows the error message: “Please input the valid format content”. | |
| 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| 3 | The user selects “Cancel” button. | | The system closes the “Create Report” view and returns the Reports screen. | |
| Priority: | High. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * The Salesman is not allowed to create reports for duplicate target schools in a day. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Search Reports



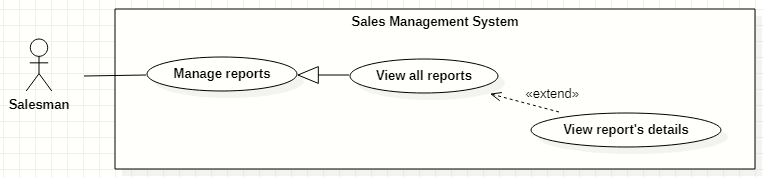
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| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-25 Search reports** | | | | |
| Created By: |  | | Date Created: | | 9/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to find the reports. | | | | |
| Trigger: | The user selects on the searching command on “Reports” screen. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Reports” screen. | | | | |
| Post-conditions: | POST-1. The list of reports is displayed as the table. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user inputs the search field or select searching filters on toolbar to find reports. | | The system displays the list of reports as the table.  [Exception 1]  [Exception 2] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The content of search field or selecting filter that The user inputted is not matched any stored data in the system. | | The system displays “No data” line on the table. | |
| 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | High | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * If the search field is blank, the system will show all reports. * Default status of all selected filters is “See All”. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View all reports



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-26 View all reports** | | | | |
| Created By: |  | | Date Created: | | 8/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view the daily report’s list of all Salesman in company. | | | | |
| Trigger: | The user selects the “Reports” command. | | | | |
| Preconditions: | PRE-1. The user has been log into system. | | | | |
| Post-conditions: | POST-1. Report’s list is displayed as the table in “Reports” screen. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects the “Reports” command on the side bar. | | The system displays “Reports” screen, report’s list is displayed as the table. | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | No stored reports data in the system. | | The system displays “No data” line on the table. | |
|  | 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View report’s details

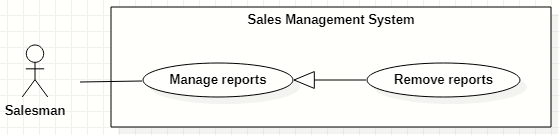
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#### Update reports

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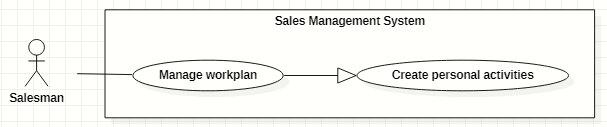
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| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-28 Update reports** | | | | |
| Created By: |  | | Date Created: | | 8/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to create daily report. | | | | |
| Trigger: | The user selects the “Update” command on “Reports” screen. | | | | |
| Preconditions: | PRE-1. The user has been log into the system.  PRE-2. The user is on the “Reports” screen. | | | | |
| Post-conditions: | POST-1. A new report is created in the system. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 |  | |  | |
| 2 |  | |  | |
| 3 |  | |  | |
| Alternative Flows: | **Step** | **Actor Action** | | **System Response** | |
| 1 |  | |  | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 |  | |  | |
|  | 2 |  | |  | |
| Priority: |  | | | | |
| Frequency of Use: |  | | | | |
| Business Rules: |  | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Remove reports

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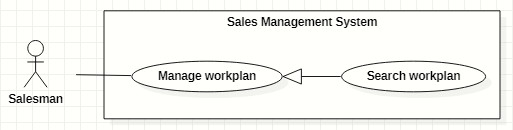
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| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-29 Remove reports** | | | | |
| Created By: |  | | Date Created: | | 8/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to create daily report. | | | | |
| Trigger: | The user selects the “Update” command on “Reports” screen. | | | | |
| Preconditions: | PRE-1. The user has been log into the system.  PRE-2. The user is on the “Reports” screen. | | | | |
| Post-conditions: | POST-1. A new report is created in the system. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 |  | |  | |
| 2 |  | |  | |
| 3 |  | |  | |
| Alternative Flows: | **Step** | **Actor Action** | | **System Response** | |
| 1 |  | |  | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 |  | |  | |
|  | 2 |  | |  | |
| Priority: |  | | | | |
| Frequency of Use: |  | | | | |
| Business Rules: |  | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Create personal activities

******

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-30 Create personal activities** | | | | |
| Created By: |  | | Date Created: | | 9/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to create new personal activity in his work-plan | | | | |
| Trigger: | The user clicks on the “create” button in work-plan screen. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Work-plan” screen. | | | | |
| Post-conditions: | POST-1. The new personal activity is added in work-plan schedule. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user clicks on “Create” button on the “Work-plan” screen. | | The system displays the “Create Activity” form dialog that contains the following format fields:   * “Title”: text, required. * “Description”: text. * “Remark”: text. * “Start time”: date time, required. * “End time”: date time, required. * “Status”: text, read only, default is “Not yet”. | |
|  | 2 | The user inputs into the information fields. | |  | |
|  | 3 | The user selects the “Save” button. | | The system shows the successful message: “Done”.  [Exception 1]  [Exception 2]  [Exception 3] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Actor Action** | | **System Response** | |
| 1 | The user leaves the blank fields or inputs invalid format content into fields. | | The system shows the error message: “Please input the valid format content”. | |
|  | 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
|  | 3 | The user inputs the “Start time” or the “End time” within the time of another activity item. | | The system shows the error message: “This activity has the same time with another” | |
| Priority: | High. | | | | |
| Frequency of Use: | Usually. | | | | |
| Business Rules: | * “Start time” has the time later than “End time”. * At the time, only activity is existed. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Search workplan



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-31 Search workplan** | | | | |
| Created By: |  | | Date Created: | | 11/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to search the personal activity in his work-plan | | | | |
| Trigger: | The user selects the “Search” command on “Work-plan” screen. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Work plan” view. | | | | |
| Post-conditions: | POST-1. The work plan schedule is displayed on the screen. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user inputs into the search field. | | The system provides suggestions that presents Salesman to users as they enter their search query into the search box. | |
|  | 2 | The user selects a Salesman item in suggestions. | | The system displays “work-plan” screen. The Work-plan has the personal activity items that present as a schedule | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Actor Action** | | **System Response** | |
| 1 | The content of search field or selecting filter that the user inputted is not matched any stored data in the system. | | The system displays “No data” line on the table. | |
|  | 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * The Sales Manager can view the Salesman’s work-plan and other Sales Manager’s work-plan. * The Salesman can only view the work-plan of other Salesman. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View work-plan



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-32 View work-plan** | | | | |
| Created By: |  | | Date Created: | | 9/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view the work-plan. | | | | |
| Trigger: | The user selects the “Work-plan” command. | | | | |
| Preconditions: | PRE-1. The user has been log into system. | | | | |
| Post-conditions: | POST-1. The personal activities are displayed in work-plan schedule. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “Work-plan” command on the sidebar. | | The system displays “work-plan” screen. The Work-plan has the personal activity items that present as a schedule  [Exception 1] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * The system displays the “Work-plan” as a week’s schedule with the activity item is a cell in the schedule. * The activity items have different colors to distinguish based on status. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View personal activity’s details



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-33 View personal activity’s details** | | | | | |
| Created By: |  | | | Date Created: | | 9/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view the detail information of personal activity. | | | | | |
| Trigger: | The user clicks on the personal activity item on work-plan screen. | | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Work-plan” screen. | | | | | |
| Post-conditions: | POST-1. The detail information of personal activity is shown as a form. | | | | | |
| Normal Flow: | **Step** | **Actor Action** | | | **System Response** | |
| 1 | The user selects any item on work-plan schedule. | | | The system displays “Personal Activity’s Details” view, the personal activity’s information is displayed as a form.  [Exception 1] | |
| Alternative Flows: | N/A | | | | | |
| Exceptions: | **No** | | **Actor Action** | | **System Response** | |
| 1 | | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal | | | | | |
| Frequency of Use: | Usually | | | | | |
| Business Rules: | N/A | | | | | |
| Other Information: | N/A | | | | | |
| Assumptions: | N/A | | | | | |

#### Edit personal activities



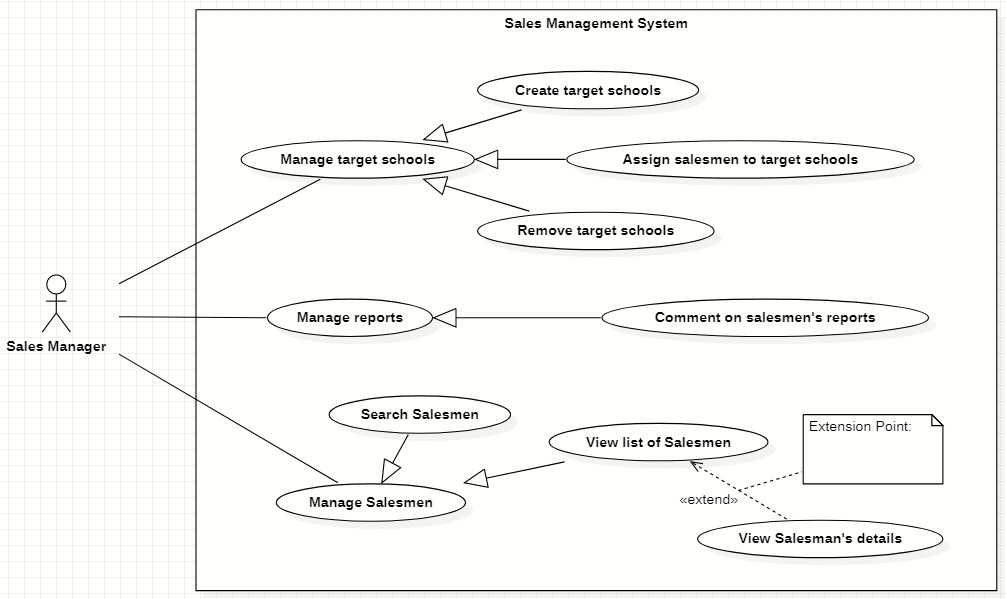
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-34 Edit personal activities** | | | | |
| Created By: |  | | Date Created: | | 11/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to add new personal activity in his work-plan | | | | |
| Trigger: | The user selects the “Edit Personal Activity” command. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Personal Activity’s Details” view. | | | | |
| Post-conditions: | POST-1. The personal activity is edited information. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects the “Edit” command. | | The system changes the text information to the inputting text fields with the following format content:   * “Title”: text, required. * “Description”: text. * “Remark”: text. * “Start time”: date time, required. * “End time”: date time, required. * “Status”: contains selections. | |
|  | 2 | The user inputs the new content in the fields. | |  | |
|  | 3 | The user clicks “Save” button.  [Exception 1] | | The system responses the successful editing message: “Done”.  [Exception 2]  [Exception 3] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Actor Action** | | **System Response** | |
| 1 | The user selects “No” button to cancel the editing. | | The system returns the “Personal Activity’s Details” screen. | |
| 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| 3 | The user inputs the “Start time” or the “End time” within the time of another activity item. | | The system shows the error message: “This activity has the same time with another” | |
| Priority: | High. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * “Start time” has the time later than “End time”. * At the time, only activity is existed. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Remove personal activities

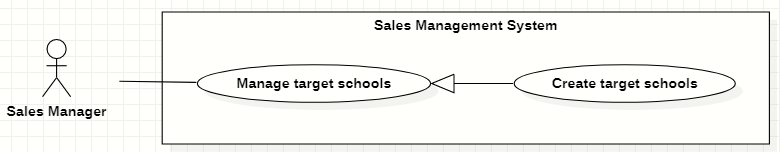


|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-35 Remove personal activities** | | | | |
| Created By: |  | | Date Created: | | 11/02/2021 |
| Primary Actor: | Salesman, Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to remove the personal activity in his work-plan | | | | |
| Trigger: | The user selects the “Remove Personal Activity” command. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Personal Activity’s Details” view. | | | | |
| Post-conditions: | POST-1. The personal activity is removed. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “Remove” command on the “Personal Activity’s Details” view. | | The system shows the removing confirmation message. | |
|  | 2 | The user selects “Yes” button to confirm the removing.  [Exception 1] | | The system shows the successful message: “Done”.  [Exception 2] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Actor Action** | | **System Response** | |
| 1 | The user selects “No” button to cancel the removing. | | The system returns the “Personal Activity’s Details” screen. | |
|  | 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

### <<Sales Manager>> Overview Use Case

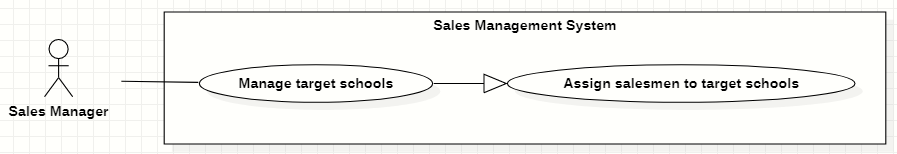


#### Create target schools



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-36 Create target schools** | | | | |
| Created By: |  | | Date Created: | | 15/02/2021 |
| Primary Actor: | Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to create new target schools. | | | | |
| Trigger: | The user clicks on the “Add” button on “Target Schools” screen. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Target Schools” screen. | | | | |
| Post-conditions: | POST-1. The new target schools are created in the system. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user clicks on “Add” button in screen. | | The system displays the “Add Target Schools” form with following required information:  -“School Name” rows: with checkbox, required.  -“Purpose”: contains selections.  -“School year”: default is the current year, read only. | |
|  | 2 | The user inputs into the information fields. | |  | |
|  | 3 | The user selects “Save” button.  [Exception 4] | | The system shows the successful message: “Done”.  [Exception 1]  [Exception 2]  [Exception 3] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user inputs invalid format or leaves the blank fields. | | The system shows the error message: “Please input the valid format content” | |
| 2 | The user inputs the “End date” earlier “Start date”. | | The system shows the error message: “Start time has the time later than End time”. | |
| 3 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
|  | 4 | The user selects “Cancel” button. | | The system closes the “Add Target Schools” form and returns the “Target School” screen. | |
| Priority: | High. | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | * Sales Manager can only create the target school at the current school year. | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Assign Salesmen to target schools

******

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-37 Assign Salesmen to target schools** | | | | |
| Created By: |  | | Date Created: | | 11/02/2021 |
| Primary Actor: | Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user assign Salesmen to target schools. | | | | |
| Trigger: | The user clicks on the “Assign” button in target schools screen. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Target Schools” screen. | | | | |
| Post-conditions: | POST-1. The target schools are assigned to Salesmen. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user ticks on the target school rows that he wants to assign then clicks on “Assign” button on screen.  [Alternative 1] | | The system displays the “Assign” form with the following information:  -“Salesman”: input text field, required.  -“Start date”: date picker, required, default is current date.  -“End date”: date picker.  - “Note”: input text field. | |
| 2 | The user inputs the information into the fields. | |  | |
| 3 | The user selects “Save” button.  [Exception 3] | | The system shows the successful message: “Done”.  [Exception 1]  [Exception 2] | |
| Alternative Flows: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “Assign” commands on the selected target school row. | | The system displays the “Assign” form with the following information:  -“Salesman”: input text field, required.  -“Start date”: date picker, required, default is current date.  -“End date”: date picker.  - “Note”: input text field.  *Continue step 2 of Normal Flow* | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The target school has been already assigned in the same school year. | | The system shows the error message: “The target school has been already assigned in the same school year”. | |
| 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| 3 | The user selects “Cancel” button. | | The system closes the “Assign” form and returns the “Target School” screen. | |
| Priority: | Usually | | | | |
| Frequency of Use: | N/A | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Remove target schools



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-38 Remove target schools** | | | | |
| Created By: |  | | Date Created: | | 15/02/2021 |
| Primary Actor: | Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to remove the target schools | | | | |
| Trigger: | The user selects the “Remove” command on the target school row. | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “All Target Schools” screen. | | | | |
| Post-conditions: | POST-1. The target schools are removed out of table. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “remove” command on the selected target school row. | | The system shows the confirmation dialog. | |
|  | 2 | The user selects “Yes” to confirm the removing.  [Exception 1] | | The system responses the successful removing message: “Done”.  [Exception 2 ] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user selects “Cancel” button. | | The system closes the confirmation dialog and returns the “All Target School” screen. | |
| 2 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Normal | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### Comment on Salesmen’s reports



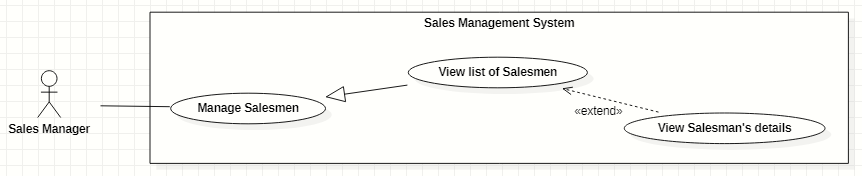
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-39 Comment on Salesmen’s reports** | | | | | |
| Created By: |  | | | Date Created: | | 12/02/2021 |
| Primary Actor: | Sales Manager | | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to comment on Salesmen’s Reports. | | | | | |
| Trigger: | The user selects the “Comment” command. | | | | | |
| Preconditions: | PRE-1. The user has been log into system.  PRE-2. The user is on the “Reports” screen. | | | | | |
| Post-conditions: | POST-1. The comment is added on Salesmen’s reports. | | | | | |
| Normal Flow: | **Step** | | **Actor Action** | | **System Response** | |
| 1 | | The user selects “comment” command on the selected report row.  [Alternative 1]  [Alternative 2] | | The system shows the “Add comment” form. With the following information:  -“Sales Manager’s comment”: input text filed. | |
| 2 | | The user inputs information into the text fields. | |  | |
|  | 3 | | The user selects “Save” button. | | The system shows successful message: “Done”.  [Exception 1]  [Exception 2]  [Exception 3] | |
| Alternative Flows: | **No** | **Step** | **Actor Action** | | **System Response** | |
| 1 | 1 | The user selects “comment” command on the commented report. | | The system notifies that this report has already commented and confirm to edit. | |
|  | 2 | The user selects “Yes” button. | | The system shows the “Add comment” form. With the following information:  -“Sales Manager’s comment”: text.  *Continue to step 2 Normal Flow.* | |
|  | 2 | 1 | On “Target School” screen. The user selects the action button on target school row. | | The system shows the options menu. | |
|  | 2 | The user selects the “Report” command on the options menu. | | The system redirects the “Reports” screen.  *Continue to step 1 Normal Flow* | |
| Exceptions: | **No** | | **Cause** | | **System Response** | |
| 1 | | The user selects the “Cancel” button without typing content. | | The system closes the “Add comment” form and returns the “Reports” screen. | |
| 2 | | The user selects the “Cancel” button after typing content. | | The system shows the confirmation message: “Discard unsaved changes?” | |
| 3 | | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | High. | | | | | |
| Frequency of Use: | Usually | | | | | |
| Business Rules: | * Sales Manager is not allowed to comment on his report. * Sales Manager is allowed to comment on reports of other Sales Managers | | | | | |
| Other Information: | N/A | | | | | |
| Assumptions: | N/A | | | | | |

#### View list of Salesmen



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-41 View list of Salesmen** | | | | |
| Created By: |  | | Date Created: | | 12/02/2021 |
| Primary Actor: | Sales Manager | | Secondary Actors: | | N/A |
| Description: | This use case allows the user to view list of all Salesmen. | | | | |
| Trigger: | The user selects the “Salesmen” command on the sidebar. | | | | |
| Preconditions: | PRE-1. The user has been log into the system. | | | | |
| Post-conditions: | POST-1. The list of Salesmen is displayed as a table in the “Salesmen” screen. | | | | |
| Normal Flow: | **Step** | **Actor Action** | | **System Response** | |
| 1 | The user selects “Salesmen” command on the sidebar. | | The system redirects to “Salesmen” screen and displays list as a table following columns:   * “Name”: text. * “Phone”: text. * “Email”: text. * “Address”: text. * “Birthdate”: text.   [Exception 1] | |
| Alternative Flows: | N/A | | | | |
| Exceptions: | **No** | **Cause** | | **System Response** | |
| 1 | The user’s device does not connect to the Internet or the server has internal error. | | The system shows the error message: “Connection Failed or Internal Error”. | |
| Priority: | Medium | | | | |
| Frequency of Use: | Usually | | | | |
| Business Rules: | N/A | | | | |
| Other Information: | N/A | | | | |
| Assumptions: | N/A | | | | |

#### View Salesman’s details

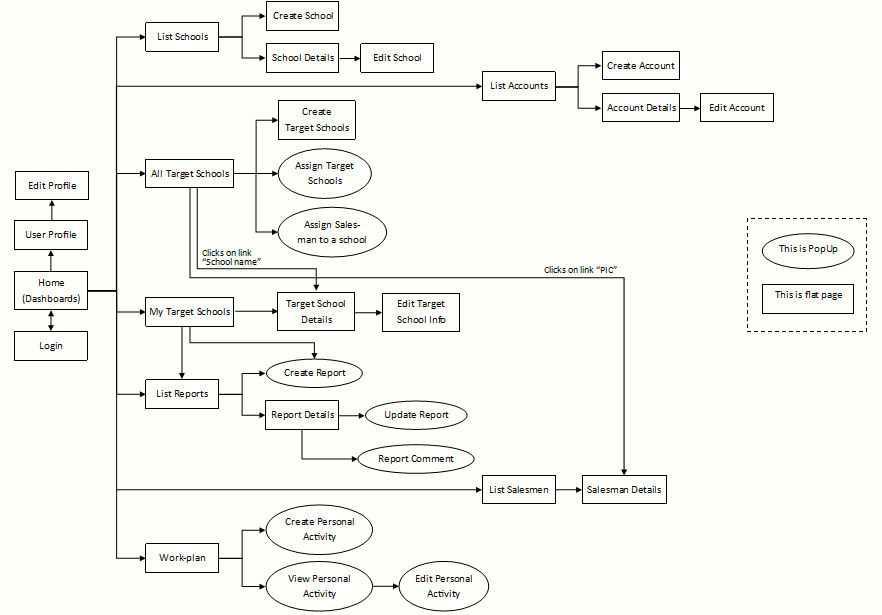


|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ID and Name: | **UC-42 View Salesman’s details** | | | | | | |
| Created By: |  | | | Date Created: | | 15/02/2021 | |
| Primary Actor: | Sales Manager | | | Secondary Actors: | | N/A | |
| Description: | This use case allows the user to view the detail’s information of Salesmen. | | | | | | |
| Trigger: | The user selects on “View detail” button on Salesman row. | | | | | | |
| Preconditions: | PRE-1. The user has been log into the system.  PRE-2. The user is on the “Salesmen” screen. | | | | | | |
| Post-conditions: | POST-1. The detail’s information of Salesman is shown as a form. | | | | | | |
| Normal Flow: | **Step** | **Actor Action** | | | **System Response** | | |
| 1 | The user selects the Salesman row on the Salesman table | | | The system shows the “Salesman Detail” view with the following information:   * General Information: * “Name”: text. * “Gender”: text. * “Phone”: text. * “Birthdate”: text. * “Address”: text. * Assign School’s information: * “School Name”: text. * “School year”: text. * “Status”: text. | | |
| Alternative Flows: | N/A | | | | | | |
| Exceptions: | **No** | | **Cause** | | | | **System Response** |
| 1 | | The user’s device does not connect to the Internet or the server has internal error. | | | | The system shows the error message: “Connection Failed or Internal Error”. |
| Priority: | Medium | | | | | | |
| Frequency of Use: | Usually | | | | | | |
| Business Rules: | N/A | | | | | | |
| Other Information: | N/A | | | | | | |
| Assumptions: | N/A | | | | | | |

## 3. Functional Requirements

### 3.1 System Functional Overview

#### a. Screen Flow



#### b. Screen Details

*[Provide the descriptions for the screens in the Screens Flow above]*

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Feature** | **Screen** | **Description** |
| 1 | Login | Login |  |
| 2 | View Dashboards | Home (Dashboards) |  |
| 3 | View Profile | User Profile |  |
| 4 | Edit Profile | Edit Profile |  |
| 5 | * View list of schools * Search schools | List Schools |  |
| 6 | Create new schools | Create School |  |
| 7 | View school’s details | School Details |  |
| 8 | Edit school’s information | Edit School |  |
| 9 | * View list of accounts * Search accounts | List Accounts |  |
| 10 | Create new accounts | Create Account |  |
| 11 | View account’s details | Account Details |  |
| 12 | Edit account’s information | Edit Account |  |
| 13 | View list of all target schools | All Target Schools |  |
| 14 | Create target schools | Create Target Schools |  |
| 15 | Assign Salesmen to target schools | Assign Target Schools |  |
| 16 | Assign Salesmen to target schools | Assign Salesman to a school |  |
| 17 | * View list of assigned target schools * Search assigned target schools | My Target Schools |  |
| 18 | View target school’s details | Target Schools Details |  |
| 19 | Edit school’s information | Edit Target School Info |  |
| 20 | * View all reports * Search reports | List Reports |  |
| 21 | Create reports | Create Report |  |
| 22 | View report’s details | Report Details |  |
| 23 | Update reports | Update Report |  |
| 24 | Comment on Salesmen’s reports | Report Comment |  |
| 25 | * View list of Salesmen * Search Salesmen | List Salesmen |  |
| 26 | View Salesman’s details | Salesman Details |  |
| 27 |  | Workplan |  |
| 28 |  | Create Personal Activities |  |
| 29 |  | View Personal Activity |  |
| 30 |  | Edit Personal Activity |  |

#### c. Screen Authorization

*[Provide the system roles authorization to the system features (down to screens, and event to the screen activities if applicable) in the table form as below – replace Role1, Role2,… with the specific system user role names]*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Screen** | **Role1** | **Role2** | **Role3** | **Role4** | **RoleX** |
| <<Screen Name1>> | X |  |  | X | X |
| <<Screen Activity>> |  |  |  | X | X |
| <<Screen Name2>> | X |  |  | X |  |
| Query All Data | X |  |  |  |  |
| Query Own Data |  |  |  | X |  |
| Query Managed Data |  |  |  | X |  |
| Add New Data |  |  |  | X | X |
| Update All Data |  |  |  |  | X |
| Update Own Data |  |  |  |  | X |
| Update Managed Data |  |  |  |  | X |
| Delete Data |  |  |  |  |  |
| … |  |  |  |  |  |

In which:

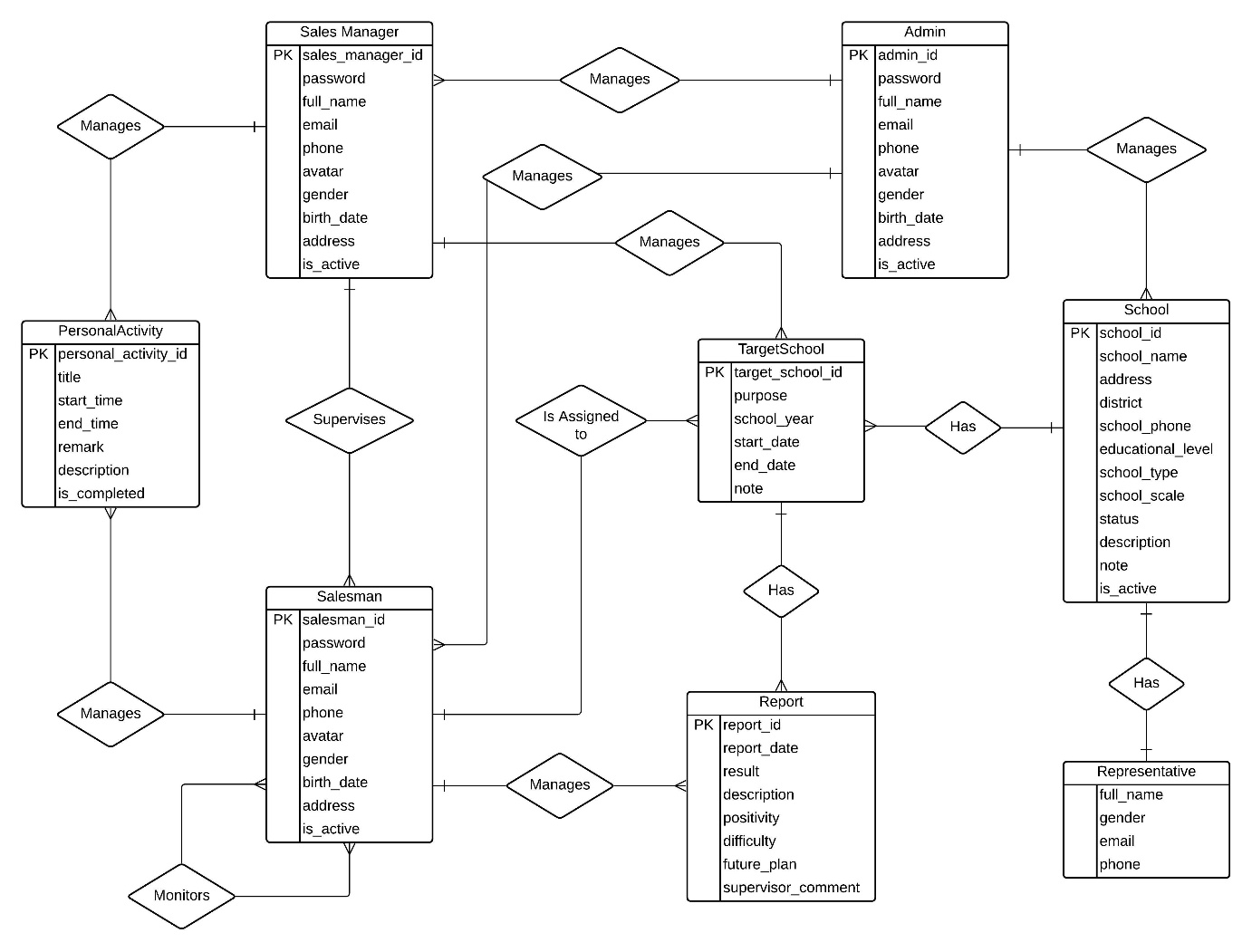
* Role1: <<role1 description>>
* Role2: <<role2 description>>
* …

#### d. Non-Screen Functions

*[Provide the descriptions for the non-screen system functions, i.e batch/cron job, service, API, etc.]*

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Feature** | **System Function** | **Description** |
| 1 | <<Feature Name>> | <<Function Name1>> | <<Function Name1 Description>> |
| 2 | … |  |  |

#### e. Entity Relationship Diagram



**Entities List**

|  |  |  |
| --- | --- | --- |
| **#** | **Entity** | **Description** |
| 1 | Admin | The Admin is an entity presenting a person who manages accounts and whole schools data of sale department. Containing information of admin (id, username, full name, phone, email, address, birthday, gender). |
| 2 | Salesman | The Salesman is an entity presenting a person who goes to work with the assigned target schools. Containing information of Salesman (id, username, full name, phone, email, birthday, address, gender) |
| 3 | Sales Manager | The Sales Manager is an entity presenting a person who manages and assigns the Target Schools to the Salesmen. Containing information of Sales Manager (id, username, full name, phone, email, birthday, address, gender) |
| 4 | School | The School is an entity presenting the school that was collected information and was select to become the target. Contain information of School (id, name, address, phone, scale, type, description, educational level) |
| 5 | Target School | The Target School is an entity presenting the target that Sales Manager creates base on Schools list and assigns to Salesmen. Containing information of School (id, name, purpose, school year, start-date, end-date) |
| 6 | Report | The Report is an entity presenting the report that Salesmen must submits to Sales Manager. Containing the report information (id, date, result, advantage, disadvantage, future strategy, supervisor comment) |
| 7 | Personal Activity | The Personal Activity is an entity presenting an activity that Salesmen or Sales Managers create in work-plan and execute based on that. Containing the Personal Activity information (id, title, start time, end time, remark, description) |
| 8 | Representative | The Representative is an entity presenting a person who is the representative for the school to contact. Containing information of Representative (full name, gender, email, phone) |

### 3.2 <<Feature Name 1>>

#### a. <<Function Name 1>>

*[A function can be a screen or a non-screen function (listed in the part 5.1 above). In this part, you need to provide the details on the related function, focus on mentioning below information*

* *Function trigger: how this function is triggered (navigation path, a timing frequency, etc.*
* *Function description: actors/roles, purpose, interface, data processing, etc.*
* *Screen layout: mockup prototype of the screen, sample below is for Manage Products screen*

**

* *Function Details: provide explanation for the data, validation, functionalities (for both normal cases and abnormal cases), etc. of the function so that the reader can image how it work.*

*]*

#### b. <<Function Name 2>>

…

### 3.3 <<Feature Name 2>>

…

## 4. Non-Functional Requirements

### 4.1 External Interfaces

#### a. User Interfaces

UI-1: The user interfaces in general should be consistent, simple, clear, intuitive, and reminiscent.

* Some design principles will be taken into consideration: <https://material.io/design/introduction>

UI-2: The user interfaces for the software shall be compatible with: Chrome (version 52 or above), Firefox (version 51 or above), Safari (version 10 or above) browser.

UI-3: The user interfaces should be responsive on multiple screen devices: Laptop, Tablet, and Mobile.

UI-4: The user interfaces should be clear and intuitive message for the users when there is a warning or an error.

UI-5: The user interfaces should ask the users to confirm the action when having major operating actions.

***b.*** ***Software Interfaces***

SI-1: This web application works with: Chrome (version 52 or above), Firefox (version 51 or above), Edge (version 14 or above), Safari (version 10 or above), or Opera (version 38 or above) browser.

#### c. Hardware Interfaces

HT-1: Since this system is a web application, which it shall work on Laptop, Tablet and Mobile.

HT-2: The system must run over the Internet; all the hardware shall require connect to the Internet.

#### d. Communications Interfaces

CI-1: The system shall communicate through HTTP protocol over the Internet.

### 4.2 Quality Attributes

#### a. Usability

- The system is designed simple, and intuitive which the users can easily manage their work.

- The default system language is English.

- The system shall take two hours of training for the users to familiar with usage.

#### Availability

- The system is available 24/7.

#### c. Security

- The system demands unauthorized users to log in for using the system.

- Each authentic user has a different role and scope for accessing a set of system functions.

- The password is hashed with BCrypt.

- The password field must be obscured with special characters representing typed characters.

- The active session time for this system is two hours, after that the user shall be demanded to log in again.

#### d. Maintainability

- The source code should be based on a unified convention coding so that developers can easily manage.

- The system is divided into separate components and modules which giving the ability to update or scale up the system.

## 5. Other Requirements

### 5.1 Appendix1 - Messages List

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Message code** | **Message Type** | **Content** | **Content** |
| 1 | MSG01 | In line | There is not any search result | *No search result.* |
| 2 | MSG02 | In red, under the text box | Input-required fields are empty | *The \* field is required.* |
| 3 | MSG03 | Toast message | Updating asset(s) information successfully | *Update asset(s) successfully.* |
| 4 | MSG04 | Toast message | Adding new asset successfully | *Add asset successfully.* |
| 5 | MSG05 | Toast message | Confirming email of asset hand-over is sent successfully | *A confirmation email has been sent to {email\_address}.* |
| 6 | MSG06 | Toast message | Resetting asset information successfully | *Return asset(s) successfully.* |
| 7 | MSG07 | Toast message | Deleting asset information successfully | *Delete asset(s) successfully.* |
| 8 | MSG08 | In red, under the text box | Input value length > max length | *Exceed max length of {max\_length}.* |
| 9 | MSG09 | In line | Username or password is not correct when clicking sign-in | *Incorrrect user name or password. Please check again.* |