12:27 2/6/2014

1/ <Member > Recommend



**Figure 1: <Member > Recommend**

|  |  |  |  |
| --- | --- | --- | --- |
| **USE CASE** | | | |
| **Use Case No.** | 001 | **Use Case Version** | 1.0 |
| **Use Case Name** | Recommend | | |
| **Author** | Tran Tan Len | | |
| **Date** | 28/05/2014 | **Priority** | Normal |
| **Actor:**   * Member.   **Summary:**   * This use case allows member recommend.   **Goal:**   * New recommend will be added to the database.   **Triggers:**   * Member want recommend product information in the system. * To recommend, Member must do the following steps:   + From “Không tìm thấy” page:   Member fills data to textboxs in “Nguồn gốc” tab or textboxs in “Cấu hình” tab.  Click button “Gửi” to finish.  **Preconditions:**   * User has logged in system as member role. * Keyword search is not exists.   **Post Conditions:**   * **Success**: Member recommend inserted into database. Show successful message. * **Fail:** Show error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Member selected “Nguồn gốc” radio button.  [Alterative1] | Interface appears, include:   * “Email” textbox, min length: 0, max length: 100, regular expression: ^[a-zA-Z0-9.!#$%&'\*+/=?^\_`{|}~-]+@[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?(?:\.[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?)\*$, required. * “Đường dẫn” textbox, min length: 6, max length: 300, regular expression: (http|ftp|https):\/\/[\w\-\_]+(\.[\w\-\_]+)+([\w\-\.,@?^=%&amp;:/~\+#]\*[\w\-\@?^=%&amp;/~\+#])?   required.   * “Mô tả” textbox, min length: 0, max length: 200. * “Gửi” Button | | 2 | Member fills data to texboxs.  Member click “Gửi” Button. | Show success message: “Thao tác thành công!”  Return “Trang chủ” page.  [Exception 1,2,3,5] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Member selected “Cấu hình” radio button. | Interface appears, include:   * “Email” textbox, min length: 0, max length: 100, regular expression: ^[a-zA-Z0-9.!#$%&'\*+/=?^\_`{|}~-]+@[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?(?:\.[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?)\*$, required. * “Tên laptop” textbox, min length: 6, max length: 30, required. * “Hình ảnh” textbox, min length: 6, max length: 300, required. , regular expression: (http|ftp|https):\/\/[\w\-\_]+(\.[\w\-\_]+)+([\w\-\.,@?^=%&amp;:/~\+#]\*[\w\-\@?^=%&amp;/~\+#])? required. * “Cpu” textbox, min length: 3, max length: 30, required. * “Ram” textbox, : 3, max length: 30, required. * “Display” textbox, min length: 3, max length: 30, required * “HDD” textbox, min length: 3, max length: 30, required * “Gửi” Button. | | 2 | Member fills data to texboxs.  Member click “Gửi” Button. | Show success message: “Thao tác thành công!”  Return “Trang chủ” page.  [Exception 1,2,3,4,5,6] |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Input missing information. | Show error message: “Bạn đã điền thiếu thông tin vui lòng nhập đủ thông tin ở ô có dấu \* ” | | 2 | Input invalid “Email”. | Show error message: “Email không hợp lệ. Vui lòng thử lại!” | | 3 | “Mô Tả” in range [0,200]. | Show error message: “Mô Tả không được quá 200 ký tự. Vui lòng thử lại!” | | 4 | TênLaptop/ Cpu/Ram/Display/  HDD in range [3,30]. | Show error message: “Thông tin phải từ 3 tới 30 ký tự. Vui lòng thử lại!” | | 5 | Input invalid “Đường dẫn”. | Show error message: “Đường dẫn không hợp lệ. Vui lòng thử lại!” | | 6 | Input invalid “Hình ảnh”. | Show error message: “Đường dẫn hình ảnh không hợp lệ. Vui lòng thử lại!” |   **Relationships:** Search.  **Business Rules:** When staff send suggesting. System will be insert info into database. If product has been exists. System will be increate count variables. If the count variable is 10. System will be send product to staff to parse. | | | |

**Table 1: <Member > Recommend**

2/ <Member>Rating



**Figure 2: <Member>Rating**

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| --- | --- | --- | --- |
| **USE CASE** | | | |
| **Use Case No.** | 002 | **Use Case Version** | 1.0 |
| **Use Case Name** | Rating | | |
| **Author** | Tran Tan Len | | |
| **Date** | 28/05/2014 | **Priority** | Normal |
| **Actor:**   * Member.   **Summary:**   * This use case allows member to rating for product   **Goal:**   * Rating product.   **Triggers:**   * Member wants to rating for product in system. * To rating product, staff must do the following steps:   + View product detail.   + Click rating icon.   **Preconditions:**   * User must log in the system with member role. * View product detail.   **Post Conditions:**   * **Success**: Rating information will be updated in database. * **Fail:** Nothing is updated. Show error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | From the “Trang chủ”page.  Member click “Tên” product or “Hình ảnh” product in list product to view product detail. | Navigate to “Chi Tiết” page which contains:   * Product detail, product weight. * Rating icon. | | 2 | Click “Rating” icon. | New rating will be updated to the database.  Rating icon changed.  [Exceptions1] |   **Alternative Scenario:** N/A  **Exceptions:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | The rating can’t update to database. | Show error message: “Không thể đánh giá sản phẩm! Vui lòng thử lại sau.” | |  |  |  |   **Relationships:** N/A  **Business Rules:** Rating help system is suggest product same weight. | | | |

**Table 2: <Member>Rating**

4, <Admin> Create Account



Figure 4: <Admin> Create Account

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| --- | --- | --- | --- |
| **USE CASE – SB003** | | | |
| **Use Case No.** | 004 | **Use Case Version** | 1.0 |
| **Use Case Name** | Create account | | |
| **Author** | Tran Tan Len | | |
| **Date** | 28/05/2014 | **Priority** | Normal |
| **Actor:**   * Admin   **Summary:**   * This use case allows admin to create new user account for the system.   **Goal:**   * New user account will be added to the system.   **Triggers:**   * Admin wants to create new user account. * From the sidebar:   + Choose “Quản lý tài khoản” menu.   + Choose “Tạo tại khoản mới” button.   **Preconditions:**   * User must login the system with admin role.   **Post Conditions:**   * **Success:** New user account will be added to the database. * **Fail:** Nothing is added to the database.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Click menu item “Quản lý tài khoản”. | Navigate to “Quản lý tài khoản” page which contains:   * “Tìm Kiếm” textbox * “Tìm Kiếm” button. * “Thêm tài khoản mới” button. * A table with 7 columns:   + ID.   + Tài Khoản.   + Mật khẩu.   + Email   + Vai trò (Dropdownlist)   + Kích Hoạt (Checkbox)   + Sửa. (Button) * ID: textbox, required. disabled. * Tài Khoản: textbox, disabled. * Mật khẩu: textbox, disabled. * Email: textbox, disabled. * Kích hoạt: checkbox, disabled. * Vai trò: drop down list, disabled. * “Sửa”: button. | | 2 | Admin clicks “ Thêm tài khoản mới” button. | Navigate to “Tạo tài tài khoản mới” page which contains:   * A table with 7 columns:   + Tài Khoản.   + Mật khẩu.   + Email   + Vai trò (Dropdownlist)   + Kích Hoạt (Checkbox)   + Thêm (Button)   + Xóa Trắng(Button) * Tên tài khoản: textbox, min length: 6, max length: 30, required. * Mật khẩu: textbox, min length: 6, max length: 30, required. * Vai trò: drop down list, required. * Kích hoạt: checkbox, required. * “Thêm”: button, required. * “Xóa Trắng” : button, required. | | 3 | Admin fills data to the row. |  | | 4 | Admin clicks “Thêm” button.  [Alternative 1]  [Exception 1, 2, 3, 4] | Insert new user account to the database and redirect to “Quản lý tài khoản” page. |   **Alternative Scenario:**N/A   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Admin clicks “Xóa Trắng” button”. | Clear all input data. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | “Tên Tài Khoản”is not in range[6-30]. | Show error message: “Độ dài tên tài khoản phải từ 6-30 ký tự!” | | 2 | “Mật Khẩu” is not in range  [6-30]. | Show error message: “Độ dài mật khẩu phải từ 6-30 ký tự!” | | 3 | “Vai trò” is not specified. | Show error message: “Phải phân quyền cho user!” | | 4 | “Tên Tài Khoản” existed already. | Show error message: “Trùng tên đăng nhập! Vui lòng chọn tên khác!” |   **Relationships:** Manage user.  **Business Rules:**   * Each created account must be in active state when insert to database. | | | |
|  | | | |

Table 4: <Admin> Create Account

5, <Admin> Update Account



Figure 5: <Admin> Update Account

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| --- | --- | --- | --- |
| **USE CASE – SB004** | | | |
| **Use Case No.** | 006 | **Use Case Version** | 1.0 |
| **Use Case Name** | Update account | | |
| **Author** | Tran Tan Len | | |
| **Date** | 28/05/2014 | **Priority** | Normal |
| **Actor:**   * Admin   **Summary:**   * This use case allows admin to update information for user accounts.   **Goal:**   * New information will be updated to the database.   **Triggers:**   * Admin wants to change some information of members or staffs.   **Preconditions:**   * User must log in system with admin role.   **Post Conditions:**   * **Success:** New information will be updated to the database. * **Fail:** Nothing is updated. Show error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Click menu item “Quản lý tài khoản”. | Navigate to “Quản lý tài khoản” page which contains:   * “Tìm Kiếm” textbox * “Tìm Kiếm” button. * “Tạo tài khoản mới” button. * A table with 7 columns:   + ID.   + Tài Khoản.   + Mật khẩu.   + Email   + Vai trò (Dropdownlist)   + Kích Hoạt (Checkbox)   + Sửa (Button) * ID: textbox, required. disabled. * Tài Khoản: textbox, disabled. * Mật khẩu: textbox, disabled. * Email: textbox, disabled. * Kích hoạt: checkbox, disabled. * Vai trò: drop down list, disabled. * “Sửa”: button. | | 2 | Click “Sửa” button. | Navigate to “Quản lý tài khoản” page, which contains:   * ID: textbox, disabled. * Tài Khoản: textbox, disabled. * Mật khẩu: textbox, min length: 6, max length: 30, required. * Email: textbox, min length: 0, max length: 100, regular expression: ^[a-zA-Z0-9.!#$%&'\*+/=?^\_`{|}~-]+@[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?(?:\.[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?)\*$, required. * Kích hoạt: checkbox. * Vai trò: drop down list, required. * “Lưu”: button. | | 3 | Admin updates “Mật Khẩu”,”Email”,”Vai trò” information.  Exceptions[1,2,3] |  | | 4 | Click “Lưu” button. | New information will be updated to the database.  [Exceiption4] |   **Alternative Scenario:** N/A  **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | “Mật khẩu” is not in range  [6,30]. | Show error message: “Độ dài mật khẩu phải từ 6-30 ký tự!” | | 2 | “vai trò” is not specified. | Show error message: “Phải phân quyền cho user!” | | 3 | Invalid email format. | Show error message: “Email phải đúng định dạng!” | | 4 | Can’t update information in database. | Show error message: “Không thể sửa tài khoản xin hãy thử lại sau” |   **Relationships:** Manage User  **Business Rules:**   * Editing username is forbidden. | | | |

Table 5: <Admin> Update Account

##### 6,<Admin> Activate Account



##### Figure 6: <Admin> Activate Account

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| --- | --- | --- | --- |
| **USE CASE – SB005** | | | |
| **Use Case No.** | 007 | **Use Case Version** | 1.0 |
| **Use Case Name** | Activate Account | | |
| **Author** | Tran Tan Len | | |
| **Date** | 28/05/2014 | **Priority** | Normal |
| **Actor:**   * Admin   **Summary:**   * This user case allows admin to activate a user account.   **Goal:**   * Deactivated accounts will be activated.   **Triggers:**   * Admin wants to activate an account so that it can be used to log in the system.   **Preconditions:**   * User must log in the system with admin role.   **Post Conditions:**   * **Success:** The selected account will be activated. * **Fail:** No account is activated.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Click menu item “Quản lý tài khoản”. | Navigate to “Quản lý tài khoản” page which contains:   * “Tìm Kiếm” textbox * “Tìm Kiếm” button. * “Tạo tài khoản mới” button. * A table with 7 columns:   + ID.   + Tài Khoản.   + Mật khẩu.   + Email   + Vai trò (Dropdownlist)   + Kích Hoạt (Checkbox)   + Sửa (Button) * ID: textbox, required. disabled. * Tài Khoản: textbox, disabled. * Mật khẩu: textbox, disabled. * Email: textbox, disabled. * Kích hoạt: checkbox, disabled. * Vai trò: drop down list, disabled. * “Sửa”: button. | | 2 | Click “Sửa” button. | Navigate to “Quản lý tài khoản” page, which contains:   * ID: textbox, disabled. * Tài Khoản: textbox, disabled. * Mật khẩu: textbox, min length: 6, max length: 30. * Email: textbox, min length: 0, max length: 100, regular expression: ^[a-zA-Z0-9.!#$%&'\*+/=?^\_`{|}~-]+@[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?(?:\.[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?)\*$,. * Kích hoạt: checkbox, required. * Vai trò: drop down list. * “Lưu”: button. | | 3 | Admin check “Kích hoạt” checkbox. |  | | 4 | Click “Lưu” button. | New status will be updated to the database.  Exceptions[1] |   **Alternative Scenario:** N/A  **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Cannot activate the account due to database connection. | Show error message: “Không thể kích hoạt! Vui lòng thử lại sau.” |   **Relationships:** Manage Account.  **Business Rules:**   * Admins can’t activate/deactivate account of themselves or other admins. | | | |

Table 6: <Admin> Activate Account

7, <Admin>Deactivate Account



Figure 7: <Admin> Deactivate User

|  |  |  |  |
| --- | --- | --- | --- |
| **USE CASE – SB006** | | | |
| **Use Case No.** | 008 | **Use Case Version** | 1.0 |
| **Use Case Name** | Deactivate Account | | |
| **Author** | Tran Tan Len | | |
| **Date** | 16/02/2014 | **Priority** | Normal |
| **Actor:**   * Admin   **Summary:**   * This user case allows admin to deactivate an account.   **Goal:**   * An active account will be deactivated.   **Triggers:**   * In our system, when we do not want a user to login, we deactivate his/her account. That account can be activated later.   **Preconditions:**   * User must log in the system with admin role.   **Post Conditions:**   * **Success:** The selected account will be deactivated. * **Fail:** No account is deactivated.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Click menu item “Quản lý tài khoản”. | Navigate to “Quản lý tài khoản” page which contains:   * “Tìm Kiếm” textbox * “Tìm Kiếm” button. * “Tạo tài khoản mới” button. * A table with 7 columns:   + ID.   + Tài Khoản.   + Mật khẩu.   + Email   + Vai trò (Dropdownlist)   + Kích Hoạt (Checkbox)   + Sửa (Button) * ID: textbox, required. disabled. * Tài Khoản: textbox, disabled. * Mật khẩu: textbox, disabled. * Email: textbox, disabled. * Kích hoạt: checkbox, disabled. * Vai trò: drop down list, disabled. * “Sửa”: button. | | 2 | Click “Sửa” button. | Navigate to “Quản lý tài khoản” page, which contains:   * ID: textbox, disabled. * Tài Khoản: textbox, disabled. * Mật khẩu: textbox, min length: 6, max length: 30. * Email: textbox, min length: 0, max length: 100, regular expression: ^[a-zA-Z0-9.!#$%&'\*+/=?^\_`{|}~-]+@[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?(?:\.[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?)\*$,. * Kích hoạt: checkbox, required. * Vai trò: drop down list. * “Lưu”: button. | | 3 | Admin uncheck “Kích hoạt” checkbox. |  | | 4 | Click “Lưu” button. | New status will be updated to the database.  Exceptions[1] |   **Alternative Scenario:** N/A  **Exceptions:**   |  |  |  | | --- | --- | --- | | No | Actor Action | System Response | | 1 | Cannot activate the account due to database connection. | Show error message: “Không thể kích hoạt! Vui lòng thử lại sau.” |   **Relationships:** Manage Account  **Business Rules:**   * Admins can’t activate/deactivate account of themselves or other admins. | | | |

Table 7: <Admin> Deactivate Account

8<Staff> Import Excel



Use Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| **USE CASE – SB08** | | | |
| **Use Case No.** | 008 | **Use Case Version** | 1.0 |
| **Use Case Name** | Import File | | |
| **Author** | Tran Tan Len | | |
| **Date** | 1/06/2014 | **Priority** | High |
| **Actor:**   * Staff   **Summary:**   * This use case allows staff to show data from excel files.   **Goal:**   * Product classification in excel file.   **Triggers:**   * Staff wants to show products in excel file. * To import a file, staff must do the following steps:   + Click “Nhập từ excel” menu.   + Choose the file, click “Tải lên” button.   **Preconditions:**   * User must log in the system with staff role.   **Post Conditions:**   * **Success**: Products will be showed. * **Fail:** Show message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | From the staff’s page, staff clicks “Nhập từ Excel” link. | Show “Nhập từ excel” page with 2 buttons:   * “Chọn tệp” button. * “Tải lên” button. | | 2 | From “Nhập từ excel” page, staff clicks “Chọn tệp” button, then clicks “Mở”. | System will get file path and show excel name on text box. | | 3 | Staff clicks “Tải lên” button | File is uploaded to server, then redirect back to “Nhập từ excel” page, contains:  \* “Danh sách thành phần cấu hình” tab:   * A 5-columns table show detail of product in excel file. Column header includes:   + “STT” label.   + “Tên ” label.   + “Trọng số” label.   + “Loại” label.   + “Xóa” button * “Lưu” button. * “Hủy” button.   \* “Thành phần cấu hình lỗi” tab.  \* “Thành phần cấu hình trùng” tab.  [Exception 1, 2, 3, 4, 5] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Click on “Hủy” button to cancel. | No product is added. System will return back to “Nhập từ excel” page. | | 2 | Click on “Lưu” button to finish. | Save products to database | |  |  |  |   **Exceptions:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | File input is wrong format. | Display error message: “File không đúng định dạng”. | | 2 | “Tên” is not in range [5, 100]. | Display error message: “Tên thành phần phải từ 5 đến 100 ký tự”. | | 3 | “Trọng số” is not in range [1, 300]. | Display error message: “Trọng số phải từ 1 đến 300”. | | 4 | “Loại ”is not in range [1, 5]. | Display error message: “Loại” phải từ 1 đến 5 ký tự”. | | 5 | File has more than 5 errors | Display number of error rows. |   **Relationships:** Manage Product.  **Business Rules:**   * Valid file format :      * Format file is excel (.xlsx/.xls) * File has less than 5 errors. * File has more than 5 errors. Display list error rows. | | | |

Table 17: <Staff> Import File

Use case specification

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| --- | --- | --- | --- |
| **USE CASE –** | | | |
| **Use Case No.** | 009 | **Use Case Version** | 1.0 |
| **Use Case Name** | Save error products | | |
| **Author** | Tran Tan Len | | |
| **Date** | 1/06/2014 | **Priority** | High |
| **Actor:**   * Staff   **Summary:**   * This use case allows staff to update product information.   **Goal:**   * New information will be updated to selected product.   **Triggers:**   * Staff wants to update product information. * To update an error product, staff must do the following steps:   + Edit product information.   + Choose the file, click “Lưu” button.   **Preconditions:**   * User must log in the system with staff role.   **Post Conditions:**   * **Success**:   +Error product will be moved to duplicate products list or correct products list. Then show success message.  + New information will be updated to selected product.   * **Fail:** Nothing is updated. Show error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Refer to use case 008 | File is uploaded to server, then redirect back to “Nhập từ excel” page, contains:  \* “Danh sách thành phần cấu hình” tab :   * A 5-columns table show detail of product in excel file. Column header includes:   + “STT” label.   + “Tên ” label.   + “Trọng số” label.   + “Loại” label.   + “Xóa” button * “Lưu” button. * “Hủy” button.   \* “Thành phần cấu hình lỗi” tab.  \* “Thành phần cấu hình trùng” tab.  [Exception 1, 2, 3] | | 2 | Click “Thành phần cấu hình lỗi” in menu tab. | Redirect to Error products list Page, include table product ,for each row:   * + “STT” : label   + “Tên”: textbox (min length: 5 max length: 100, required). “Trọng số”: textbox (min length: 1 max length: 100, required).   + “Loại”: textbox (min length: 1 max length: 5, required).   + “Lưu” button. | | 3 | Edit product information. Then click “Lưu” button | Product information will be updated.  The system will be compared this product name with products in duplicate products list and correct products list. Then move this product to duplicate products list or correct products list. [Exception 1, 2, 3] |   **Alternative Scenario:** N/A  **Exceptions:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | “Tên” is not in range [5, 100]. | Display error message: “Tên thành phần phải từ 5 đến 100 ký tự”. | | 2 | “Trọng số” is not in range [5, 100]. | Display error message: “Trọng số phải từ 1 đến 100”. | | 3 | “Loại ”is not in range [1,5]. | Display error message: “Loại” phải từ 1 đến 5 ký tự”. |   **Relationships:** Login, Import File.  **Business Rules:**  - Compare products by product name with algorithms:  + Create a function *pairs(s)* which returns a list of adjacent character pairs of string *s*.  +Then, we use below formula to calculate matching percent. | | | |

Table 18: <Staff> Save error products

Use Case Specification

|  |  |  |  |
| --- | --- | --- | --- |
| **USE CASE – SB015** | | | |
| **Use Case No.** | 010 | **Use Case Version** | 1.0 |
| **Use Case Name** | Process duplicate products | | |
| **Author** | Tran Tan Len | | |
| **Date** | 1/06/2014 | **Priority** | High |
| **Actor:**   * Staff   **Summary:**   * This use case allows staff to join or divide products.   **Goal:**   * Duplicate products will be joined or divided.   **Triggers:**   * Staff wants to join or divide products. * To join products, staff must do the following steps:   + Select at least 2 products.   + Click “Gộp” button. * To divide products, staff must do the following steps:   + Select products by checkbox.   + Click “Tách” button.   **Preconditions:**   * User must log in the system with staff role.   **Post Conditions:**   * **Success**: Products will be moved to correct products list. * **Fail:** Nothing is changed. Show error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Refer to use case 008 | File is uploaded to server, then redirect back to “Nhập từ excel” page, contains:  \* “Danh sách thành phần cấu hình” tab:   * A 5-columns table show detail of product in excel file. Column header includes:   + “STT” label.   + “Tên ” label.   + “Trọng số” label.   + “Loại” label.   + “Xóa” button * “Lưu” button. * “Hủy” button.   \* “Thành phần cấu hình lỗi” tab.  \* “Thành phần cấu hình trùng” tab.  [Exception 1, 2, 3, 4, 5] | | 2 | Click “Thành phần cấu hình trùng” in menu tab. | “Danh sách thành phần cấu hình” tab :   * A 5-columns table show detail of product in excel file. Column header includes:   + “STT” label.   + “Tên ” label.   + “Trọng số” label.   + “Loại” label.   + “Xóa” button * “Lưu” button. * “Hủy” button.   \* “Thành phần cấu hình lỗi” tab.  \* “Thành phần cấu hình trùng” tab.   * + [Exception 1, 2, 3] | | 3 | Select products by checkbox. Then click “Gộp” button | Selected products will be joined. And move to correct products list.  [Exception 1] | | 4 | Select products by checkbox. Then click “Tách” button | Selected products will be divided. And move to correct products list. |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Click on “Lưu file” button. | Duplicate products name will be recorded to log file. | | 2 | Click on “Gộp tất cả” button. | All products on each table will be joined. | | 3 | Click on “Tách tất cả” button. | All products on each table will be divided. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Select at least 2 products | Display error message: “Vui lòng chọn ít nhất 2 sản phẩm”. |   **Relationships:** Login, Import File.  **Business Rules:**  - Products will be joined by product name and separated by “;”.  - Merge: make two or more names refer to one product.  - Split: different names mean different products. | | | |

Table 19: <Staff> Process duplicated products

Use case specification

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| **USE CASE – SB016** | | | |
| **Use Case No.** | SB016 | **Use Case Version** | 1.0 |
| **Use Case Name** | Save correct products | | |
| **Author** | Tran Tan Len | | |
| **Date** | 1/06/2014 | **Priority** | High |
| **Actor:**   * Staff   **Summary:**   * This use case allows staff to import data from excel files.   **Goal:**   * Create many products from imported files.   **Triggers:**   * Staff wants to create many products by importing excel files. * To import a file, staff must do the following steps:   + Click “Nhập từ excel” menu.   + Choose the file, click “Tải lên” button.   **Preconditions:**   * User must log in the system with staff role.   **Post Conditions:**   * **Success**: Products will be compared with database.   **+** If products not available in database will be added to the database. Show success message.  **+** If products available in database will be moved to duplicate products list.   * **Fail:** Nothing is saved to the database. Show error list.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Refer to use case 008 | File is uploaded to server, then redirect back to “Nhập từ excel” page, contains:  \* “Danh sách thành phần cấu hình” tab:   * A 5-columns table show detail of product in excel file. Column header includes:   + “STT” label.   + “Tên ” label.   + “Trọng số” label.   + “Loại” label.   + “Xóa” button * “Lưu” button. * “Hủy” button.   \* “Thành phần cấu hình lỗi” tab.  \* “Thành phần cấu hình trùng” tab.  [Exception 1, 2, 3, 4, 5] | | 2 | Click “Danh sách thành phần cấu hình” in menu tab. | File is uploaded to server, then redirect back to “Nhập từ excel” page, contains:   * A 4-columns table show detail of product in excel file. Column header includes:   + STT” label.   + “Tên ” label.   + “Trọng số” label.   + “Loại” label. * “Lưu” button. * “Hủy” button.   [Exception 1, 2, 3] | | 3 | Staff clicks “Lưu” button to save product. [Alternative 1] | Compare products in correct products list with database by product name.  Duplicate products will be moved to duplicate products list. Else, save products to database. [Exception 4] |   **Alternative Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Click on “Hủy” button to finish. | No product is added. System will return back to “Nhập từ excel” page. |   **Exceptions:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | “Tên” is not in range [5, 100]. | Display error message: “Tên sản phẩm phải từ 5 đến 100 ký tự”. | | 2 | “Trọng số” is not in range [1, 100]. | Display error message: “Trọng số phải từ 1 đến 100”. | | 3 | “Loại ”is not in range [1,5]. | Display error message: “Loại” phải từ 1 đến 5 ký tự”. | | 4 | Fail to insert to database. | Display error message: “Có lỗi xảy ra. Vui lòng thử lại sau”. |   **Relationships:** Login, Import File.  **Business Rules:**  - Compare products by product name with algorithms:  + Create a function *pairs(s)* which returns a list of adjacent character pairs of string *s*.  +Then, we use below formula to calculate matching percent. | | | |

Table 20: <Staff> Save correct products

Use case specification

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| **USE CASE – SB017** | | | |
| **Use Case No.** | SB017 | **Use Case Version** | 1.0 |
| **Use Case Name** | Log File | | |
| **Author** | Tran Tan Len | | |
| **Date** | 1/06/2014 | **Priority** | High |
| **Actor:**   * Staff   **Summary:**   * This use case allows staff to create log file of duplicate products.   **Goal:**   * Log file will be generated.   **Triggers:**   * Staff wants to create log file of duplicate products. * To create log file, staff must do:   + Click “Lưu file” button.   **Preconditions:**   * User must log in the system with staff role.   **Post Conditions:**   * **Success**: Log file will be generated. Show message * **Fail:** Nothing is changed. Show error message.   **Main Success Scenario:**   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Refer to usecase 008 | “Danh sách thành phần cấu hình” tab :   * A 5-columns table show detail of product in excel file. Column header includes:   + “STT” label.   + “Tên ” label.   + “Trọng số” label.   + “Loại” label.   + “Xóa” button * “Lưu” button. * “Hủy” button.   \* “Thành phần cấu hình lỗi” tab.  \* “Thành phần cấu hình trùng” tab.  [Exception 1, 2, 3, 4, 5] | | 2 | Click “Sản phẩm trùng” in menu tab. | Redirect to duplicate products list Page, include:  \* 3 button :   * + “Gộp tất cả”: button.   + “Tách tất cả”: button.   + “Lưu file”: button   \* table duplicate products ,for each row:   * + Checkbox : checkbox   + “STT” label.   + “Tên ” label.   + “Trọng số” label.   + “Loại” label.   + “Gộp”: button.   + “Tách”: button. | | 3 | Click “Lưu file” button | Products in duplicate products list will be compared with database.  Duplicate products name will be recorded to log file. |   **Alternative Scenario:** N/A  **Exceptions:** N/A  **Relationships:** Login, Import File.  **Business Rules:**  - Name of product will be recorded by each row of each table and seceded by “;”.  - Compare products by product name with algorithms:  + Create a function *pairs(s)* which returns a list of adjacent character pairs of string *s*.  +Then, we use below formula to calculate matching percent. | | | |

Table 21: <Staff> Log File