

**Online learning**

**Software Requirement Specification**

– Hanoi, May 2023–

Record of changeS

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| --- | --- | --- | --- |
| Date | A\* M, D | In charge | Change Description |
| 15/5/2023 | A | Manh | Added Screen Details |
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\*A - Added M - Modified D - Deleted

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# I. Overview

## 1. Introduction

*[Content part 1: presents a high-level overview of the product and the environment in which it will be used, the users, and known constraints, assumptions, and dependencies]*

*[Content part 2: describes the product's context in the form of a context diagram in which you present the boundary and connections between the system you’re developing and everything else in the universe. This identifies external entities (or terminators – software, hardware, human components, and other systems) outside the system that interface to it in some way, as well as data, control, and material flows between the terminators and the system]*

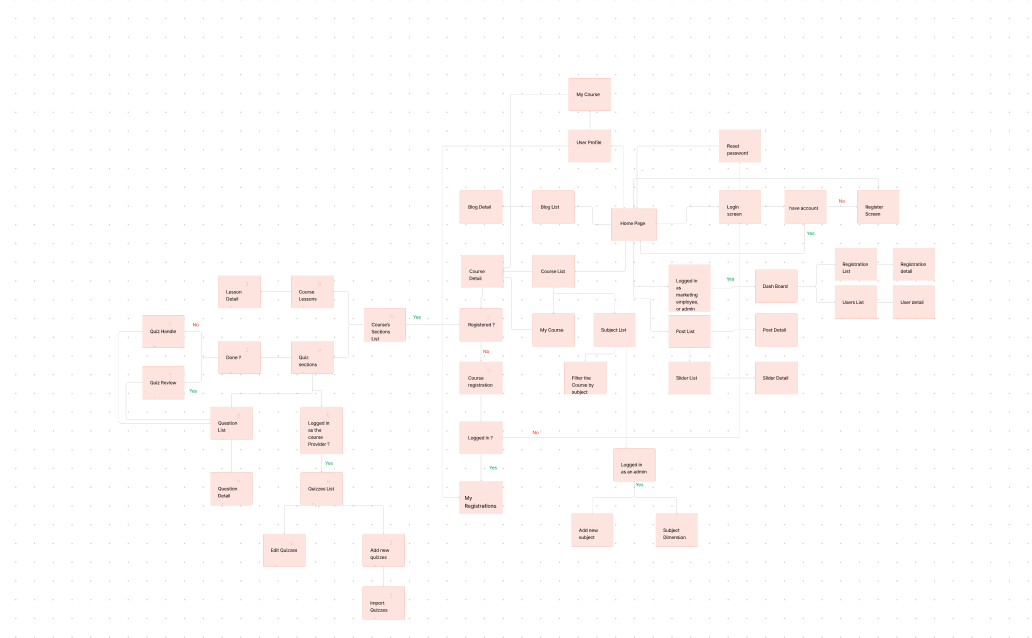
<<Sample: The Cafeteria Ordering System is a new software system that replaces the current manual and telephone processes for ordering and picking up meals in the Process Impact cafeteria. The system is expected to evolve over several releases, ultimately connecting to the Internet ordering services for several local restaurants and to credit and debit card authorization services.

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## 2. System Functions

#### a. Screen Flow

*[This part shows the system screens and the relationship among screens. You can draw the Screens Flow for the system in the form of diagram as below]*



#### b. Screen Details

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

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Feature** | **Screen** | **Description** |
| 1 | Common | User Login | This is a pop-up screen which allows the user to enter email & password to login; on this page, there are also options for user to register new information or reset the password for the case s/he forget it |
| 2 | Common | User Register | This is a pop-up screen which allows the user to register himself/herself to the system by inputting following information: full name, gender, email, mobile; User then need to verify by clicking the link sent via email to him/her before being able to access the system |
| 3 | Common | Reset Password | The user to input his/her email to receive the reset password link. This link is sent to the user's email for his/her password resetting. - On clicking the link, the user is redirected to the password resetting page in which s/he input new password (twice) for the system access - Note that the link is only available for a specific time duration as configured in the system config file. |
| 4 | Common | User Authorization | Implementation of authorization mechanism in the system, including the specify the role of logged-in user, his/her authorized page links (building the displayed menu items (in the front end) and preventing unauthorized access via enter the links directly) |
| 5 | Common | User Profile | This is a pop-up screen which allows the user to edit his/her profile information, including the registered ones & the avatar image. Please note that s/he is not allowed to change the email |
| 6 | Common | Change Password | This is a pop-up screen which allows the user to change his/her password by inputting his current password as well as new password (twice) |
| 7 | Public | Home | Show sliders, hot posts, featured subjects + the sider with the latest posts, static contacts/links - Shown slider information includes its image and title; the user is redirected to the slider's backlink on his/her clicking - Shown post information includes its thumbnail, title, post date; the user is redirected to the post's details on his/her clicking - Shown subject information includes its thumbnail, title, tag line; the user is redirected to the subjectt's details on his/her clicking |
| 8 | Public | Blogs List | Show the posts paginatedly (sorted by updated date) + the sider with the post search box, posts categories, latest posts, static contacts/links; Shown post information includes its thumbnail, title, category, brief-info; the user is redirected to the post's details on his/her clicking |
| 9 | Public | Blog Details | Show post details (including title, author, updated date, category, and post details) + the sider with the post search box, posts categories, latest posts, static contacts/links |
| 10 | Public | Courses List | Show the subjects paginatedly (sorted by updated date, paginated) + the sider with the subject search box, subject categories, featured subjects, and static contacts/links;  - Shown subject information includes its thumbnail, title, tag line, lowest price package option (list price, sale price);  - The user is redirected to the subject's details on his/her clicking on the subject - The user can choose to register to the subject by clicking the Register button |
| 11 | Public | Course Details | Show subject details (including title, tag line, brief info, lowest price package option (original price, sale price), product description, and a Register button) + the sider with the subject search box, subject categories, featured subjects, static contacts/links |
| 12 | Public | Course Register | This is a pop-up screen which allow the user to register for access a subject. On this screen, the user needs to choose appropriate subject price package & input his/her information (full name, email, mobile, gender); A logged in user doesn't have to input those contact information |
| 13 | Customer | My Registrations | Show the list of user's registration + the sider with the subject search box, subject categories, static contacts/links - Each registration includes below information: id, subject, registration time, package, total cost, status, valid from, valid to; - If the registration is still in the submitted status, the users can choose to cancel it or comming back to the Course Register pop-up to edit it) |
| 14 | Customer | My Courses | for the customer to view his/her access-allowed courses |
| 15 | Customer | Lesson View | allow customer to access the course lessons for his/her studying |
| 16 | Customer | Quiz Lesson | This allows the user to take the topic quiz or view the quiz results |
| 17 | Learning | Quiz Handle | This screen allows the user to browse and answer the quiz questions |
| 18 | Learning | Quiz Review | This screen allows the user to review the details of the quiz that s/he has just taken |
| 19 | Marketing | Dashboard | Show statistics of new subjects (new, all), new registrations (success, cancelled, submitted), revenues (total, by subject categories), customers (newly registered, newly bought), and the trend of order counts (success, all) by day for the last 7 days (the start date & end date can be adjustable) |
| 20 | Marketing | Post Details | Show detailed post information (thumbnail, category, title, brief information, description, flag to turn the featurning on/off, status), from that allow the user to input, view or edit them |
| 21 | Marketing | Sliders List | Show the paginated list of sliders (including sliders' id, title, image, backlink, status) - The user can filter the sliders by the status + search by title or backlink - For each slider, the user can choose to hide, show, edit it |
| 22 | Marketing | Slider Details | Show detailed slider information (image, title, backlink, status, notes) |
| 23 | Course Content | Subjects List | Show the list of course paginatedly. The shown information for each subject include the id, name, category, number of lessons, owner, and status The user can: - Filter the list by course category & status - Search the course by the name - Choose to add new course (redirect the user to the New Subject page for that) - Edit course information (linked to the Subject Details for that) |
| 24 | Course Content | New Subject | The screen is shown with below information for the user to input new course information: name, thumbnail image, category, featured flag, owner, status, and description |
| 25 | Course Content | Subject Details | This page allows the admin and the assigned expert to access and prepare the subject information, including the course general information, the dimension, and price package. Only the admin can change the status to Published or Unpublished + add/edit the price packages |
| 26 | Course Content | Subject Dimension | This page allow the admin/expert to input or edit subject dimension information, including the following detailed information: type, name, description |
| 27 | Course Content | Price Package | This page allows the admin to input or edit subject dimension information, including the following detailed information: name, access duration (in months), status (read-only), list price, sale price, description. The expert can only view the information. |
| 28 | Course Content | Subject Lessons | This page shows the list of lessons for a selected package. On this page, the admin/expert is allowed to activate/deactivate, or call the Lesson Details for adding new or editing existing lesson |
| 29 | Course Content | Lesson Details | This page allows the admin/expert to input/edit the lesson information |
| 30 | Test Content | Questions List | The existing questions list for a specific subject/course are shown here (paginatedly). On this screen, the admin/expert is allowed to filter the questions by the subject, lesson, dimension(s), level, status + search the questions by content Below information are shown for each quesiton in the list: id, content, subject /dimension /lesson, level, status + options to show, hide, edit it; The page also allows the user to import the question (redirect him/her to the Questions Import pop-up screen. |
| 31 | Test Content | Question Details | This page allows the admin/expert to input or edit questions information, including following information: subject, dimension(s), lesson, status, content, media (image, audio, video – with preview option), answer options (with the key marked + ability to add, edit, delete), and explanation |
| 32 | Test Content | Question Import | This is a pop-up screen which allows user to choose import file and then import the questions in the file into the questions bank. The screen also provides the option for the user to download the sample import template. |
| 33 | Test Content | Quizzes List | The existing quizzes are showned in this page paginatedly: - The user can filter the list by subject, quiz types + search quizzes by the name - Each quiz includes following information: id, name, subject, level, # question, duration, pass rate, and the quiz type. From this page, the user has the options to call to the Quiz Details page for adding new or editing existing quiz + delete the quiz. Please note that the quiz can be editted only when there is not any test taken yet. |
| 34 | Test Content | Quiz Details | This page allows the user to input or edit quiz information |
| 35 | Sale | Registrations List | Show the list of users' registrations - Each registration includes below information: id, email, registration time, subject, package, total cost, status, valid from, valid to, last updated by; - The user can filter the list by subject (searchable), registration time (from, to), status + can search by the email - The list can be sorted by id, email, registration time, subject, package, total cost, status, valid from, valid to - From the list, the user can choose to add new or edit an existing registration via the Registration Details screen as below |
| 36 | Sale | Registration Details | Show detailed registration information (subject, package with list price/sale price, full name, gender, email, mobile), registration time, sale, status, valid from, valid to, notes) from that for the user to add new or change the status of a registration with relevant notes (if a registration is created by the user, then s/he can edit other registration information). On changing a registration status to Paid, if the user with relevant registered email does not exist, the system would create one and send back to the user the login information (link, email, pass) along with the other notification notes |
| 37 | Admin | Users List | Show the paginated list of registered users (include users' id, full name, gender, email, mobile, role, status): - The admin can filter the users by gender, role, status - Allow the admin to seach users by full name, email, mobile - The list is sortable by id, fullname, gender, email, mobile, role, status - From each user, the admin can choose to view or edit it - The page also have the button/link that allows the admin to add new user |
| 38 | Admin | User Details | Show detailed user information (avatar, full name, gender, email, mobile, role, address, status), from that allow the user to add new, view or edit user information - After adding, new generated login password would be email to the new user - The admin can only edit/update the role and status of the user |
| 39 | Admin | Settings List | Show the paginated list of settings (include settings' id, type, value, order, status): - The admin can filter the setting by type, status - Allow the admin to seach settings by value - The list is sortable by id, type, value, order, status - From each setting, the admin can choose to view, activate/deactivate, or edit it - The page also have the button/link that allows the admin to add new setting |
| 40 | Admin | Setting Details | Show detailed user information (type, value, order, description, status), from that allow the user to add new, view or edit setting information |

#### c. User 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 | … |  |  |

## 3. Entity Relationship Diagram

*[Provide the entity relationship diagram and the entity descriptions in the table format as below]*



**Entities Description**

|  |  |  |
| --- | --- | --- |
| **#** | **Entity** | **Description** |
| 1 | User |  |
| 2 | Meal |  |
| 3 | Meal Subscription |  |
| 4 | … |  |

# II. Functional Requirements

## 1. <<Feature Name 1>>

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

*[A function can be a screen or a non-screen function (listed in the part I.2.d 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, business logics, 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>>

…

## 2. <<Feature Name 2>>

…