
Use Cases

for

Cafeteria Ordering System, Release 1.0

Version 1.0 approved

Prepared by Karl Wiegiers

Process Impact

November 20, 2011

Revision History

| Name | Date | Reason For Changes | Version |
|---------------|----------|---|--------------|
| Karl Wiegiers | 18/11/11 | initial draft | 1.0 draft 1 |
| Karl Wiegiers | 20/11/11 | baseline following changes after inspection | 1.0 approved |

The various user classes identified the following use cases and primary actors for the Cafeteria Ordering System:

| Primary Actor | Use Cases |
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| Patron | <ol style="list-style-type: none">1. Order Meal2. Change Meal Order3. Cancel Meal Order4. View Menu5. Register for Payroll Deduction6. Unregister for Payroll Deduction7. Subscribe to Standard Meal8. Modify Meal Subscription9. Override Meal Subscription |
| Menu Manager | <ol style="list-style-type: none">10. Create Menu11. Modify Menu12. Define Meal Special |
| Cafeteria Staff | <ol style="list-style-type: none">13. Prepare Meal14. Generate Payment Request15. Request Delivery16. Generate System Usage Reports |
| Meal Deliverer | <ol style="list-style-type: none">17. Deliver Meal18. Record Meal Delivery19. Print Delivery Instructions |

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| Use Case ID: | 1 | | |
| Use Case Name: | Order Meal | | |
| Created By: | Karl Wieggers | Last Updated By: | Jack McGillicutty |
| Date Created: | October 21, 2006 | Date Last Updated: | November 7, 2006 |
| Actors: | Patron | | |
| Description: | A Patron accesses the Cafeteria Ordering System from the corporate intranet or from home, optionally views the menu for a specific date, selects food items, and places an order for a meal to be delivered to a specified location within a specified 15-minute time window. | | |
| Preconditions: | <ol style="list-style-type: none"> 1. Patron is logged into COS. 2. Patron is registered for meal payments by payroll deduction. | | |
| Postconditions: | <ol style="list-style-type: none"> 1. Meal order is stored in COS with a status of "accepted". 2. Inventory of available food items is updated to reflect items in this order. 3. Remaining delivery capacity for the requested time window is updated to reflect this delivery request. | | |
| Normal Flow: | <p>1.0 Order a Single Meal</p> <ol style="list-style-type: none"> 1. Patron asks to view menu for a specified date. 2. System displays menu of available food items and the daily special. 3. Patron selects one or more food items from menu. 4. Patron indicates that meal order is complete. 5. System displays ordered menu items, individual prices, and total price, including any taxes and delivery charge. 6. Patron confirms meal order or requests to modify meal order (back to step 3). 7. System displays available delivery times for the delivery date. 8. Patron selects a delivery time and specifies the delivery location. 9. Patron specifies payment method. 10. System confirms acceptance of the order. 11. System sends Patron an e-mail confirming order details, price, and delivery instructions. 12. System stores order in database, sends e-mail to notify Cafeteria Staff, sends food item information to Cafeteria Inventory System, and updates available delivery times. | | |
| Alternative Flows: | <p>1.1 Order multiple meals (branch after step 4)</p> <ol style="list-style-type: none"> 1. Patron asks to order another meal. 2. Return to step 2. <p>1.2 Order multiple identical meals (after step 3)</p> <ol style="list-style-type: none"> 1. Patron requests a specified number of identical meals. 2. Return to step 4. <p>1.3. Order the daily special (after step 2)</p> <ol style="list-style-type: none"> 1. Patron orders the daily special from the menu. 2. Return to step 5. | | |
| Exceptions: | <p>1.0.E.1 Current time is after order cutoff time (at step 1)</p> <ol style="list-style-type: none"> 1. System informs Patron that it's too late to place an order for today. 2a. Patron cancels the meal order. 2b. System terminates use case. | | |

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| | <p>3a. Patron requests to select another date. 3b. System restarts use case.</p> <p>1.0.E.2 No delivery times left (at step 1)</p> <p>1. System informs Patron that no delivery times are available for the meal date. 2a. Patron cancels the meal order. 2b. System terminates use case. 3. Patron requests to pick the order up at the cafeteria (skip steps 7-8).</p> <p>1.2.E.1 Can't fulfill specified number of identical meals (at step 1)</p> <p>1. System informs Patron of the maximum number of identical meals it can supply. 2. Patron changes number of identical meals ordered or cancels meal order.</p> |
| Includes: | None |
| Priority: | High |
| Frequency of Use: | Approximately 400 users, average of one usage per day |
| Business Rules: | BR-1, BR-2, BR-3, BR-4, BR-8, BR-11, BR-12, BR-33 |
| Special Requirements: | <p>1. Patron shall be able to cancel the meal order at any time prior to confirming the order.</p> <p>2. Patron shall be able to view all meals he ordered within the previous six months and repeat one of those meals as the new order, provided that all food items are available on the menu for the requested delivery date. (Priority = medium)</p> |
| Assumptions: | 1. Assume that 30 percent of Patrons will order the daily special (source: previous six months of cafeteria data). |
| Notes and Issues: | <p>1. The default date is the current date if the Patron is using the system before today's order cutoff time. Otherwise, the default date is the next day that the cafeteria is open.</p> <p>2. If Patron doesn't want to have the meal delivered, the precondition requiring registration for payroll deduction is not applicable.</p> <p>3. Peak usage load for this use case is between 8:00am and 10:00am local time.</p> |

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| Use Case ID: | 5 | | |
| Use Case Name: | Register for Payroll Deduction | | |
| Created By: | Karl Wieggers | Last Updated By: | Chris Zambito |
| Date Created: | October 21, 2006 | Date Last Updated: | October 31, 2006 |
| Actors: | Patron, Payroll System | | |
| Description: | Cafeteria patrons who use the Cafeteria Ordering System and have meals delivered must be registered for payroll deduction. For noncash purchases made through the COS, the cafeteria will issue a payment request to the Payroll System, which will deduct the meal costs from the next scheduled employee paycheck or payday direct deposit. | | |
| Preconditions: | Patron is logged into COS. | | |
| Postconditions: | Patron is registered for payroll deduction. | | |
| Normal Flow: | 5.0 Register for Payroll Deduction <ol style="list-style-type: none"> Patron requests to register for payroll deduction. System invokes Authenticate User's Identity use case. System asks Payroll System if Patron is eligible to register for payroll deduction. Payroll System confirms that Patron is eligible. System informs Patron that he is eligible for payroll deduction. System asks Patron to confirm his desire to register for payroll deduction. Patron confirms desire to register for payroll deduction. System asks Payroll System to establish payroll deduction for Patron. Payroll System confirms that payroll deduction is established. System informs Patron that payroll deduction is established and provides confirmation number of the registration transaction. | | |
| Alternative Flows: | None | | |
| Exceptions: | 5.0.E.1 Patron identity authentication fails (at step 2) <ol style="list-style-type: none"> System gives user two more opportunities for correct identity authentication. a. If authentication is successful, Patron proceeds with use case. b. If authentication fails after three tries, System notifies Patron, logs invalid authentication attempt, and terminates use case. 5.0.E.2 Patron is not eligible for payroll deduction (at step 4) <ol style="list-style-type: none"> System informs Patron that he is not eligible for payroll deduction and gives the reason why. System terminates use case. 5.0.E.3 Patron is already enrolled for payroll deduction (at step 4) <ol style="list-style-type: none"> System informs Patron that he is already registered for payroll deduction. System terminates use case. | | |
| Includes: | Authenticate User's Identity | | |
| Priority: | High | | |
| Frequency of Use: | Once per employee on average | | |
| Business Rules: | BR-86 and BR-88 govern an employee's eligibility to enroll for payroll deduction. | | |
| Special Requirements: | 1. User authentication is performed per corporate standards for medium- | | |

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| | security applications. |
| Assumptions: | None |
| Notes and Issues: | 1. Expect high frequency of executing this use case within first 2 weeks after system is released. |

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| Use Case ID: | 11 | | |
| Use Case Name: | Modify Menu | | |
| Created By: | Karl Wieggers | Last Updated By: | |
| Date Created: | October 21, 2006 | Date Last Updated: | |
| Actors: | Menu Manager | | |
| Description: | The cafeteria Menu Manager may modify the menu of available food items and prices for a specified date to reflect changes in availability or prices or to define daily meal specials. | | |
| Preconditions: | Menus already exist in the system. | | |
| Postconditions: | Modified menu has been saved. | | |
| Normal Flow: | 11.0 Edit Existing Menu 1. Menu Manager requests to view the menu for a specific date. 2. System displays the menu. 3. Menu Manager modifies the menu to add new food items, remove or change food items, create or change a meal special, or change prices. 4. Menu Manager requests to save the modified menu. 5. System saves modified menu. | | |
| Alternative Flows: | None | | |
| Exceptions: | 11.0.E.1 No menu exists for specified date (at step 1) 1. System informs Menu Manager that no menu exists for the specified date. 2. System asks Menu Manager if he would like to create a menu for the specified date. 3a. Menu Manager says yes. 3b. System invokes Create Menu use case. 4a. Menu Manager says no. 4b. System terminates use case. 11.0.E.2 Date specified is in the past (at step 1) 1. System informs Menu Manager that the menu for the requested date cannot be modified. 2. System terminates use case. | | |
| Includes: | Create Menu | | |
| Priority: | High | | |
| Frequency of Use: | Approximately 20 times per week by one user | | |
| Business Rules: | BR-24 | | |
| Special Requirements: | 1. The Menu Manager may cancel out of the menu modification function at any time. If the menu has been changed, the system shall request confirmation of the cancellation. | | |
| Assumptions: | 1. A menu will be created for every official Process Impact business day, including weekends and holidays in which employees are scheduled to be on site. | | |
| Notes and Issues: | 1. Certain food items will not be deliverable, so the menu presented to the Patrons of the Cafeteria Ordering System for delivery will not always exactly match the menu available for pickup in the cafeteria. The menu shall indicate which items may not be delivered. The system shall not permit a Patron to order those items for delivery. | | |

1. Business Rules for Cafeteria Ordering System (partial)

| <i>ID</i> | <i>Rule Definition</i> | <i>Type of Rule</i> | <i>Static or Dynamic</i> | <i>Source</i> |
|-----------|---|---------------------|--------------------------|----------------------------------|
| BR-1 | Delivery time windows are 15 minutes, beginning on each quarter hour. | Fact | Static | Cafeteria Manager |
| BR-2 | Deliveries must be completed between 10:00am and 2:00pm local time. | Constraint | Dynamic | Cafeteria Manager |
| BR-3 | All meals in a single order must be delivered to the same location. | Constraint | Static | Cafeteria Manager |
| BR-4 | All meals in a single order must be paid for using the same payment method. | Constraint | Static | Cafeteria Manager |
| BR-8 | Meals must be ordered within 14 calendar days of the meal date. | Constraint | Dynamic | Cafeteria Manager |
| BR-11 | If an order is to be delivered, the patron must pay by payroll deduction. | Constraint | Dynamic | Cafeteria Manager |
| BR-12 | Order price is calculated as the sum of each food item price times the quantity of that food item ordered, plus applicable sales tax, plus a delivery charge if a meal is delivered outside the free delivery zone. | Computation | Dynamic | cafeteria policy; state tax code |
| BR-24 | Only cafeteria employees who are designated as Menu Managers by the Cafeteria Manager may create, modify, or delete cafeteria menus. | Constraint | Static | cafeteria policy |
| BR-33 | Network transmissions that involve financial information or personally identifiable information require 128-bit encryption. | Constraint | Static | corporate security policy |
| BR-35 | <i>[details about restricted computer system access policy would go here]</i> | Constraint | Static | corporate security policy |
| BR-86 | Only permanent employees may register for payroll deduction for any company purchase. | Constraint | Static | Corporate Accounting Manager |
| BR-88 | An employee may register for payroll deduction payment of cafeteria meals if no more than 40 percent of his gross pay is currently being deducted for other reasons. | Constraint | Dynamic | Corporate Accounting Manager |