Point of Sale System – Use Case Elaboration

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SWDV 630: OBJECT-ORIENTATED CODING 1W 20/SP1

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| USE CASE NAME: | Log into the PoS System |
| ID: | UC1 |
| SCENARIO: | Cashier starts their shift and is ready to take orders |
| TRIGGERING EVENT: | Cashier arrives at work to start their shift |
| BRIEF DESCRIPTION: | A cashier needs to start their shift and sign in to the PoS system to start assisting customers with their purchases. |
| ACTORS: | Cashier |
| ASSUMPTIONS: | The PoS manager has created and account for the cashier and the cashier knows their password or sign-in code. |
| FREQUENCY OF USE: | Daily |
| RELATED USE CASES: | Logout of register, Reset password |
| STAKEHOLDERS: | Business Owner |
| PRECONDITIONS: | The business is open for customers to make purchases |
| POSTCONDITIONS: | The cashier is logged in and can start serve customers |
| MAIN COURSE: | 1. Cashier touches screen to login 2. System responds with a dialog box to enter id and password 3. Cashier enters credentials and touches the login button 4. New order screen is displayed |
| ALTERNATE COURSE: | 1. Login fails    1. System responds with error message    2. Systems responds with a dialog box with currently entered username and bank password field    3. Cashier retries logging in 2. Cashier wants to reset password (see password reset use case) 3. Login fails N times    1. System locks account after N failures for X minutes |

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| USE CASE NAME: | Ring up an item |
| ID: | UC2 |
| SCENARIO: | A customer wants to purchase an item |
| TRIGGERING EVENT: | Customer requests the purchase of an item |
| BRIEF DESCRIPTION: | A customer wants to purchase an item and the cashier needs to add the item to the order |
| ACTORS: | Customer, Cashier |
| ASSUMPTIONS: | The cashier is already logged into the PoS system and the item the customer wishes to purchase already exists in the PoS |
| FREQUENCY OF USE: | Multiple times per day |
| RELATED USE CASES: | Open a ticket, complete a sale |
| STAKEHOLDERS: | Business Owner |
| PRECONDITIONS: | Cashier has a has an account with access to the PoS system |
| POSTCONDITIONS: | The item the customer wishes to purchase is added to the order |
| MAIN COURSE: | 1. Customer presents the item to the cashier    1. The cashier touches the screen to add the item to the order OR    2. The cashier scans the item to add to the order OR    3. The cashier manually types the item id into the system 2. Cashier selects add next item OR 3. Cashier selects checkout |
| ALTERNATE COURSE: | 1. Item is not found in the PoS system 2. Customer decides not to purchase the item after the item is added to the order |

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| USE CASE NAME: | Open Ticket |
| ID: | UC3 |
| SCENARIO: | A cashier needs to start a new sales order |
| TRIGGERING EVENT: | A customer wants to purchase one or more items |
| BRIEF DESCRIPTION: | A new order needs to be started |
| ACTORS: | Cashier, customer |
| ASSUMPTIONS: | The cashier is already logged into the PoS system, there are no pending transactions and the item the customer wishes to purchase already exists in the PoS |
| FREQUENCY OF USE: | Multiple times per day |
| RELATED USE CASES: | Ring up an item, complete a sale |
| STAKEHOLDERS: | Business Owner |
| PRECONDITIONS: | Cashier has a has an account with access to the PoS system |
| POSTCONDITIONS: | A new ticket has been created with ability to add items for purchase |
| MAIN COURSE: | 1. The cashier selects new ticket 2. A new ticket is created |
| ALTERNATE COURSE: | 1. There is a pending transaction and the new ticket option is not presented 2. The customer changes their mind and no longer wishes to make a purchase |

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| USE CASE NAME: | Complete Sale |
| ID: | UC4 |
| SCENARIO: | A cashier has finished ringing up all items and the customer is ready to pay |
| TRIGGERING EVENT: | There are no more items to ring up |
| BRIEF DESCRIPTION: | The customer has presented all items for purchase and the cashier has confirmed with the customer that their order is complete. |
| ACTORS: | Cashier, customer |
| ASSUMPTIONS: | All items have been rung up without any errors, the customer wishes to purchase all items and complete the sale |
| FREQUENCY OF USE: | Multiple times per day |
| RELATED USE CASES: | Ring up an item, open a ticket |
| STAKEHOLDERS: | Business Owner |
| PRECONDITIONS: | A new ticket has been opened and one or more items have been rung up |
| POSTCONDITIONS: | The sale is closed, the customer has paid and the system is ready to create a new ticket |
| MAIN COURSE: | 1. Cashier selects complete sale 2. Customer pays 3. Ticket is closed |
| ALTERNATE COURSE: | 1. Customer wishes to add an item before paying 2. Customer wishes to remove and item before paying 3. Customer wishes to cancel the order 4. Customer has insufficient resources to pay |

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| USE CASE NAME: | Start Self-Service Checkout |
| ID: | UC5 |
| SCENARIO: | Customer wishes to use the self-service option of the system |
| TRIGGERING EVENT: | Customer walks up to a system enable for self-service |
| BRIEF DESCRIPTION: | A system is enabled for self-service and a customer approaches with items to purchase |
| ACTORS: | Customer |
| ASSUMPTIONS: | There is a system enabled for self-service |
| FREQUENCY OF USE: | Multiple times per day |
| RELATED USE CASES: | Ring up an item, complete a sale |
| STAKEHOLDERS: | Business owner |
| PRECONDITIONS: | A system is enabled for self-service checkout. An identity for self-service virtual cashiers exists |
| POSTCONDITIONS: | The customer is able to complete the purchase including payment. |
| MAIN COURSE: | 1. The customer selects the begin checkout option 2. The system presents instructions on how to ring up items |
| ALTERNATE COURSE: | 1. The begin checkout option is not available 2. A successful checkout is started but the customer is not able to ring up items |

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| USE CASE NAME: | Ring up an item (Self-service) |
| ID: | UC6 |
| SCENARIO: | A customer wants to purchase an item using self-service checkout |
| TRIGGERING EVENT: | A customer has selected the begin checkout option on a system enabled for self-service checkout |
| BRIEF DESCRIPTION: | The customer needs to ring up one or more items at a self-service checkout |
| ACTORS: | Customer |
| ASSUMPTIONS: | The customer was able to start a self-service checkout |
| FREQUENCY OF USE: | Multiple times per day |
| RELATED USE CASES: | Start Self-Service Checkout, complete a sale |
| STAKEHOLDERS: | Business Owner |
| PRECONDITIONS: | The self-service checkout process has been started |
| POSTCONDITIONS: | The item is successfully added to the order |
| MAIN COURSE: | 1. A customer is able to follow the instructions presented to ring up the item |
| ALTERNATE COURSE: | 1. The item is not found 2. The customer wants to remove the item from their order |

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| USE CASE NAME: | Complete Sale (Self-service) |
| ID: | UC7 |
| SCENARIO: | A customer has finished adding items to their order and wants to complete the sale |
| TRIGGERING EVENT: | The last item has been rung up |
| BRIEF DESCRIPTION: | Once all items have been added to the order the customer is ready to complete the sale and checkout |
| ACTORS: | Customer |
| ASSUMPTIONS: | All items have been successfully rung up |
| FREQUENCY OF USE: | Multiple times per day |
| RELATED USE CASES: | Ring up an item |
| STAKEHOLDERS: | Business Owner |
| PRECONDITIONS: | All items have been rung up |
| POSTCONDITIONS: | The sale is complete and the self-service system is ready to take another order |
| MAIN COURSE: | 1. The customer selects the checkout option 2. The method of payment options are displayed 3. The customer selects a method of payment and completes the sale |
| ALTERNATE COURSE: | 1. The customer wants to change their order    1. Add another item    2. Remove an item    3. Cancel the order 2. There is not a suitable method of payment available 3. The systems completes the sale but is not ready to take another order |

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| USE CASE NAME: | Create cashier login account |
| ID: | UC8 |
| SCENARIO: | PoS admin needs to create a new cashier account |
| TRIGGERING EVENT: | A new employee is hired to be a cashier |
| BRIEF DESCRIPTION: | The PoS Admin needs to login to the management portal of the PoS system to create a new cashier account |
| ACTORS: | PoS Admin, Store Manager, Cashier |
| ASSUMPTIONS: | The store manager has provided all the information necessary to the PoS Admin to create the new cashier account |
| FREQUENCY OF USE: | Random |
| RELATED USE CASES: | Login to register |
| STAKEHOLDERS: | Cashier and Store Manager |
| PRECONDITIONS: | The PoS admin has an account with access to the management portal |
| POSTCONDITIONS: | The cashier has a username and password to login to the PoS system |
| MAIN COURSE: | 1. PoS Admin logs into management portal 2. System presents PoS management dashboard 3. PoS Admin selects ‘add new cashier login’ 4. PoS Admin enters cashier attributes |
| ALTERNATE COURSE: | 1. PoS Admin login fails    1. System responds with error message    2. Systems responds with a dialog box with currently entered username and bank password field    3. PoS Admin retries loggin in 2. PoS Admin wants to reset password (see password reset use case) 3. Login fails N times    1. System locks account after N failures for X minutes |

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| USE CASE NAME: | Create Departments |
| ID: | UC9 |
| SCENARIO: | The PoS admin is configuring the system |
| TRIGGERING EVENT: | The PoS admin receives a request to add a new department to the system |
| BRIEF DESCRIPTION: | Additional items are being added to the system and a new department category is needed |
| ACTORS: | PoS Admin, Sales Manager |
| ASSUMPTIONS: | The PoS admin has access to the system and has received all information necessary to create the new department |
| FREQUENCY OF USE: | After initial setup a few times per year |
| RELATED USE CASES: | None |
| STAKEHOLDERS: | Business Owner, Sales Manager |
| PRECONDITIONS: | The PoS admin is logged into the system |
| POSTCONDITIONS: | The new department has been created and is available to be selected when creating new items or updating existing items |
| MAIN COURSE: | 1. The PoS admin selects add new department 2. The PoS admin is presented with fields to enter the required information 3. The PoS admin enters all required information and optional information 4. The PoS admin saves the record |
| ALTERNATE COURSE: | 1. The add new department option is not available 2. Saving the department fails    1. The department name already exists    2. The department name is not valid    3. There is required information that is missing 3. The PoS admin wants to cancel the change |

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| USE CASE NAME: | Create Item(s) |
| ID: | UC10 |
| SCENARIO: | Items need to be added to the PoS system |
| TRIGGERING EVENT: | PoS setup or PoS updated |
| BRIEF DESCRIPTION: | The PoS Admin needs to update the PoS system with new items available for sale |
| ACTORS: | PoS Admin |
| ASSUMPTIONS: | The PoS system is already set up with items and the PoS admin has access to the PoS management portal |
| FREQUENCY OF USE: | Weekly |
| RELATED USE CASES: | Create Departments |
| STAKEHOLDERS: | Store Manager |
| PRECONDITIONS: | The Store Manager has provided the PoS admin with the details needed to add the new item(s) |
| POSTCONDITIONS: | The new item(s) are available in the PoS system |
| MAIN COURSE: | 1. PoS Admin logs into the Pos management portal 2. The system presents a list of activities 3. The PoS Admin select Add new item 4. The system presents a list of departments 5. The PoS Admin selects the department 6. The PoS Admin adds the properties for the new item |
| ALTERNATE COURSE: | 1. The department for the new item does not exist    1. The PoS admin selects add new department    2. The PoS Admin adds the properties for the new department 2. PoS Admin login fails    1. System responds with error message    2. Systems responds with a dialog box with currently entered username and bank password field    3. PoS Admin retries loggin in 3. PoS Admin wants to reset password (see password reset use case) 4. Login fails N times    1. System locks account after N failures for X minutes |

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| USE CASE NAME: | Enter Prices |
| ID: | UC11 |
| SCENARIO: | The PoS Admin needs to update the price of an existing item |
| TRIGGERING EVENT: | The Sales Manager requests a chance of the price of an item |
| BRIEF DESCRIPTION: | The PoS Admin needs to locate the item and update the price |
| ACTORS: | PoS Admin, Sales Manager |
| ASSUMPTIONS: | The item exists in the system and the price is different than the change being requested |
| FREQUENCY OF USE: | Monthly |
| RELATED USE CASES: | Create item(s) |
| STAKEHOLDERS: | Business Owner, Sales Manager |
| PRECONDITIONS: | The PoS Admin is logged into the system |
| POSTCONDITIONS: | The price of the item is updated to the price the Sales Manager has requested |
| MAIN COURSE: | 1. PoS Admin logs into the Pos management portal 2. The system presents a list of activities 3. The PoS Admin select update item 4. The PoS Admin updates the price of the item |
| ALTERNATE COURSE: | 1. The Item is not found 2. The price in the system is the same as the price update |

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| USE CASE NAME: | Add Vendor |
| ID: | UC12 |
| SCENARIO: | The inventory manager wants to purchase items from a new vendor |
| TRIGGERING EVENT: | The inventory manager is ready to place an order from a new vendor |
| BRIEF DESCRIPTION: | When placing an order the vendor needs to exist in the PoS system along with the items being ordered |
| ACTORS: | Inventory Manager |
| ASSUMPTIONS: | The Inventory Manager has access to the PoS system and all items being ordered exist in the system |
| FREQUENCY OF USE: | Monthly |
| RELATED USE CASES: | Create item(s) |
| STAKEHOLDERS: | Business Owner, Inventory Manager |
| PRECONDITIONS: | The Inventory manager is logged into the PoS system and all items being ordered already exist in the system |
| POSTCONDITIONS: | The new vendor has been added to the system and is available to start placing orders |
| MAIN COURSE: | 1. The Inventory Manager logs into the PoS system 2. The Inventory Manager is presented with the appropriate functions 3. The Inventory Manager selects the add new vendor option 4. The Inventory Manager adds the required information |
| ALTERNATE COURSE: | 1. The Inventory Manager is not presented the new vendor function 2. The vendor already exists in the system |

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| USE CASE NAME: | Print Inventory |
| ID: | UC13 |
| SCENARIO: | The Inventory Manager needs to take a physical inventory |
| TRIGGERING EVENT: | Time for monthly inventory |
| BRIEF DESCRIPTION: | The inventory manager needs to verify the physical inventory on hand with the totals listed in the system |
| ACTORS: | Inventory Manager |
| ASSUMPTIONS: | The Inventory Manager has access to the PoS system, all orders have been fulfilled and the business is not taking new orders |
| FREQUENCY OF USE: | Monthly |
| RELATED USE CASES: | None |
| STAKEHOLDERS: | Inventory Manager, Business Owner |
| PRECONDITIONS: | The Inventory Manager is logged into the PoS system |
| POSTCONDITIONS: | The Inventory Manager has an accurate printed list of the current inventory |
| MAIN COURSE: | 1. The Inventory Manager logs into the PoS system 2. The Inventory Manager is presented with the appropriate functions 3. The Inventory Manager selects print inventory list |
| ALTERNATE COURSE: | 1. The Inventory Manager is not presented the print inventory list function 2. Printer error |

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| USE CASE NAME: | Update Inventory |
| ID: | UC14 |
| SCENARIO: | After taking inventory the Inventory Manager needs to make updates |
| TRIGGERING EVENT: | Monthly physical inventory is complete |
| BRIEF DESCRIPTION: | The PoS system needs to be updated to represent the physical inventory |
| ACTORS: | Inventory Manager |
| ASSUMPTIONS: | The Inventory Manager has access to the PoS system and the physical inventory has been completed |
| FREQUENCY OF USE: | Monthly |
| RELATED USE CASES: | Print Inventory |
| STAKEHOLDERS: | Inventory Manager, Business Owner |
| PRECONDITIONS: | The Inventory Manager is logged into the PoS system and has a copy of the physical inventory |
| POSTCONDITIONS: | The PoS system has an accurate inventory of items on hand |
| MAIN COURSE: | 1. Inventory Manager logs into the Pos management portal 2. The system presents a list of activities 3. The Inventory Manager select update inventory 4. The Inventory Manager updates the inventory |
| ALTERNATE COURSE: | 1. The Inventory Manager is not presented the update inventory function 2. Items are missing from the inventory list |

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| USE CASE NAME: | Enter Costs |
| ID: | UC15 |
| SCENARIO: | The sale price of items is a function of their cost. Items in inventory have been purchased and costs need to be updated |
| TRIGGERING EVENT: | New items are purchased |
| BRIEF DESCRIPTION: | After receiving an order the items received need to be added to inventory and current costs need to be adjusted |
| ACTORS: | Inventory Manager |
| ASSUMPTIONS: | The Inventory Manager has access to the PoS system, the vendor exists in the system and all items exist in the system |
| FREQUENCY OF USE: | Weekly |
| RELATED USE CASES: | Create item(s), add vendor |
| STAKEHOLDERS: | Business Owner, Inventory Manager |
| PRECONDITIONS: | The Inventory Manager is logged into the PoS system, all vendors and items exist in the PoS System |
| POSTCONDITIONS: | All purchases have been entered and the costs are up to date |
| MAIN COURSE: | 1. Inventory Manager logs into the Pos management portal 2. The system presents a list of activities 3. The Inventory Manager select update costs 4. The Inventory Manager enters all the purchases |
| ALTERNATE COURSE: | 1. The Inventory Manager is not presented the update costs function 2. An Item is not found 3. A Vendor is not found |