**Use Case Name:** Create Auction Listing

* **Use Case ID:** UC001
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Dealers
* **Stakeholders and Their Interests:**
  + Dealers: Interested in effectively listing their items for sale.
  + Buyers: Interested in browsing and bidding on listed items.
* **Preconditions:** Dealer is logged in to the system.
* **Postconditions:** The item is successfully listed on the auction platform.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Dealer arrives at the "Create Listing" section. | Presents the option to create a new auction listing. |
| 3. Dealer selects the "Create New Listing" option. | Presents the form to input item details. |
| 3. Dealer fills in the required item details, including title, description, images, and starting price. | Records the provided information in the system. |
| 4. Dealer confirms the listing. | Validates the provided information and creates the auction listing. |

* **Extensions (Alternative Scenarios):**

**a. Required item details not provided:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System prompts the dealer to complete the missing details. | Alerts the dealer of missing information and requests completion. |
| 2. Dealer provides the missing item details. | Records the provided information and continues with the listing process. |

**b. Error in image uploading:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Dealer attempts to upload images for the listing. | Initiates the image uploading process. |
| 2. System encounters an error during image upload. | Notifies the dealer of the error and prompts for re-upload or alternative action. |

**c. Duplicate listing detected:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System detects that a similar listing already exists. | Alerts the dealer of the duplicate listing. |
| 2. Dealer decides to proceed or cancel the listing. | Offers options to either continue with the listing or cancel. |

* **Special Requirements & Technology:**
  + Image uploading feature should support various file formats and ensure image clarity.
  + Text input fields for item details should have validation checks to ensure data accuracy.
  + Error handling mechanism should provide informative messages to guide the dealer through any issues encountered during the listing process.

**Use Case Name:** Schedule Auction

* **Use Case ID:** UC002
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Vendors
* **Stakeholders and Their Interests:**
  + Vendors: Interested in setting up auction dates and times for their items.
  + Buyers: Interested in knowing the schedule of upcoming auctions.
* **Preconditions:** Vendor is logged in to the system.
* **Postconditions:** Auction is successfully scheduled for the specified date and time.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Vendor accesses the "Schedule Auction" section. | Presents the option to schedule a new auction. |
| 2. Vendor selects the item to auction and specifies the auction start and end date. | Records the auction schedule in the system. |
| 3. Vendor confirms the auction schedule. | Validates the provided information and schedules the auction. |

* **Extensions (Alternative Scenarios):**

**a. Overlapping auction dates:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System detects overlapping dates with existing auctions. | Alerts the vendor of the conflicting schedule. |
| 2. Vendor chooses alternative dates or cancels the scheduling. | Offers options to resolve the scheduling conflict. |

**b. Error in date selection:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Vendor selects invalid or past dates for the auction. | Notifies the vendor of the error and prompts for correct date selection. |

* **Special Requirements & Technology:**
  + Calendar feature for selecting dates.
  + Time input fields with validation to ensure accurate scheduling.
  + Error handling mechanism to guide vendors through any scheduling conflicts or date selection errors.

**Use Case Name:** Manage Bids

* **Use Case ID:** UC003
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Buyers
* **Stakeholders and Their Interests:**
  + Buyers: Interested in placing, withdrawing, and adjusting bids on auction items.
  + Sellers: Interested in monitoring bidding activity on their items.
* **Preconditions:** Buyer is logged in to the system and viewing an active auction.
* **Postconditions:** Bid is successfully placed, adjusted, or withdrawn.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Buyer views the item details and current bid. | Presents the current bid status and option to place a bid. |
| 2. Buyer enters their bid amount and submits. | Records the bid and updates the bid status. |
| 3. System validates the bid and updates the bid status. | Ensures the bid amount is valid and reflects the current highest bid. |

* **Extensions (Alternative Scenarios):**

**a. Bid amount lower than current bid:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Buyer enters a bid amount lower than the current bid. | Notifies the buyer of the insufficient bid amount and prompts to enter a higher bid. |

**b. Bid withdrawal request:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Buyer requests to withdraw their bid. | Removes the bid from the auction and updates bid status accordingly. |

* **Special Requirements & Technology:**
  + Real-time bid updating to reflect current auction status.
  + Validation checks for bid amounts to ensure fair and accurate bidding.
  + Error handling mechanism to guide buyers through any bid validation issues or withdrawal requests.

**Use Case Name:** Monitor Auction Progress

* **Use Case ID:** UC004
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Sellers
* **Stakeholders and Their Interests:**
  + Sellers: Interested in tracking the progress of their auctions in real-time.
  + Buyers: Interested in knowing the status of ongoing auctions.
* **Preconditions:** Seller is logged in to the system and has active auctions.
* **Postconditions:** Seller receives updated information on auction progress.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Seller accesses the dashboard or auction management section. | Displays the list of active auctions and their current status. |
| 2. Seller views the number of bids, current highest bid, and time remaining for each auction. | Presents the relevant auction details to the seller. |

* **Extensions (Alternative Scenarios):**

**a. No bids on the item:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Seller views an auction with no bids. | Notifies the seller that there are no current bids on the item. |

**b. Error in retrieving auction data:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters an error in retrieving auction data. | Displays an error message and prompts the seller to refresh or try again later. |

* **Special Requirements & Technology:**
  + Real-time updates on auction status to provide accurate information to sellers.
  + Dashboard interface for easy monitoring and visualization of auction progress.
  + Error handling mechanism to inform sellers about any issues encountered while retrieving auction data.

**Use Case Name:** Receive Auction Status Updates

* **Use Case ID:** UC005
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Users (Buyers and Sellers)
* **Stakeholders and Their Interests:**
  + Users: Interested in staying informed about the status of auctions they are participating in.
  + Sellers: Interested in receiving updates on the progress of their auctions.
  + Buyers: Interested in knowing the results of auctions they participated in.
* **Preconditions:** User is logged in to the system and has participated in relevant auctions.
* **Postconditions:** User receives timely updates on auction status.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. User logs in to the system. | Identifies the user and retrieves relevant auction information. |
| 2. User accesses the notifications or updates section. | Presents the latest updates on auction status to the user. |

* **Extensions (Alternative Scenarios):**

**a. Delay in receiving updates:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. User notices a delay in receiving updates. | Notifies the user about potential delays and assures regular updates. |

**b. Error in retrieving updates:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters an error in retrieving updates. | Displays an error message and prompts the user to try again later. |

* **Special Requirements & Technology:**
  + Push notification feature to deliver updates to users in real-time.
  + Error handling mechanism to handle any issues encountered while retrieving updates.
  + Regular system maintenance to ensure timely delivery of updates to users.

**Use Case Name:** Set Reserve Price

* **Use Case ID:** UC006
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Sellers
* **Stakeholders and Their Interests:**
  + Sellers: Interested in setting a minimum price (reserve price) for their items.
  + Buyers: Interested in knowing if an item has a reserve price set.
* **Preconditions:** Seller is logged in to the system and is creating or editing an auction listing.
* **Postconditions:** Reserve price is successfully set for the item.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Seller navigates to the auction listing creation/editing section. | Displays the option to set a reserve price for the item. |
| 2. Seller enters the reserve price for the item. | Records the reserve price in the system. |
| 3. Seller confirms the reserve price setting. | Validates the provided information and saves the reserve price. |

* **Extensions (Alternative Scenarios):**

**a. Reserve price higher than starting bid:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Seller enters a reserve price higher than the starting bid. | Notifies the seller that the reserve price should be lower than the starting bid. |

**b. Error in saving reserve price:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters an error while saving the reserve price. | Displays an error message and prompts the seller to try again later. |

* **Special Requirements & Technology:**
  + Input field validation to ensure that the reserve price is a valid numeric value.
  + Error handling mechanism to guide sellers through any issues encountered while setting the reserve price.
  + Clear indication on the auction listing page to inform buyers if a reserve price has been set for the item.

**Use Case Name:** Increment bid automatically

* **Use Case ID:** UC007
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** System
* **Stakeholders and Their Interests:**
  + Buyers: Interested in fair and transparent bidding process.
  + Sellers: Interested in maximizing auction revenue.
* **Preconditions:** Auction is ongoing and has bids placed on the item.
* **Postconditions:** Winning bid is determined based on the bidding rules and increments.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System monitors the ongoing auction and checks for new bids. | Identifies new bids placed on the item. |
| 2. System applies automatic bid increment rules to the current highest bid. | Calculates the next valid bid amount based on predefined rules. |

* **Extensions (Alternative Scenarios):**

**a. Bid increment rule not met:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System determines that the bid increment rule is not met. | Adjusts the bid increment to meet the predefined rules. |

**b. No new bids placed:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System detects no new bids placed during a specified time interval. | Pauses the automatic bid increment until new bids are placed. |

* **Special Requirements & Technology:**
  + Real-time monitoring of auction activity to apply bid increments promptly.
  + Configurable bid increment rules to accommodate different auction scenarios.
  + Error handling mechanism to handle any discrepancies or issues encountered while applying bid increments.

**Use Case Name:** Notify auction results

* **Use Case ID:** UC008
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** System
* **Stakeholders and Their Interests:**
  + Buyers: Interested in knowing the outcome of auctions they participated in.
  + Sellers: Interested in receiving updates on auction results for their items.
* **Preconditions:** Auctions have ended, and results are available.
* **Postconditions:** Users receive notifications with auction results.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System identifies auctions that have ended. | Retrieves auction results and participant information. |
| 2. System generates notifications for buyers and sellers. | Sends notifications containing auction results to relevant users. |

* **Extensions (Alternative Scenarios):**

**a. Delay in generating notifications:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters delays in generating notifications. | Notifies users about potential delays and assures timely delivery of notifications. |

**b. Error in sending notifications:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System fails to send notifications to some users. | Logs the failed attempts and retries sending notifications. |

* **Special Requirements & Technology:**
  + Notification system capable of sending alerts to users via email, SMS, or in-app notifications.
  + Robust error handling mechanism to ensure reliable delivery of notifications.
  + System should prioritize timely delivery of notifications to maintain user satisfaction.

**Use Case Name:** Manage Auction Catalog

* **Use Case ID:** UC009
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Administrators
* **Stakeholders and Their Interests:**
  + Administrators: Interested in managing the catalog of items available for sale.
  + Buyers: Interested in browsing and searching for items in the catalog.
* **Preconditions:** Administrator is logged in to the system.
* **Postconditions:** Catalog is updated with new items or changes.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Administrator accesses the catalog management section. | Displays the catalog management interface. |
| 2. Administrator adds, edits, or removes items from the catalog. | Updates the catalog with the changes made by the administrator. |

* **Extensions (Alternative Scenarios):**

**a. Error in adding/editing/removing items:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters an error while processing catalog changes. | Alerts the administrator of the error and provides guidance on resolving it. |

**b. Duplicate item entry detected:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System detects a duplicate entry in the catalog. | Prompts the administrator to resolve the duplicate entry. |

* **Special Requirements & Technology:**
  + User-friendly interface for easy navigation and management of the catalog.
  + Input validation to ensure data integrity and prevent duplicate entries.
  + Audit trail functionality to track changes made to the catalog for accountability.

**Use Case Name:** Access Auctioneer Tools

* **Use Case ID:** UC010
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Auctioneers
* **Stakeholders and Their Interests:**
  + Auctioneers: Interested in efficiently managing and conducting auctions.
  + Sellers: Interested in having their items effectively auctioned.
* **Preconditions:** Auctioneer is logged in to the system.
* **Postconditions:** Auctioneer successfully manages and conducts auctions.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Auctioneer accesses the auctioneer tools section. | Displays tools and functionalities for auction management. |
| 2. Auctioneer selects the desired tool (e.g., bid management, auction scheduling). | Provides access to the selected tool with relevant options. |

* **Extensions (Alternative Scenarios):**

**a. Error in accessing auctioneer tools:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters an error while loading auctioneer tools. | Displays an error message and prompts the auctioneer to retry. |

**b. Unauthorized access attempt:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Unauthorized user attempts to access auctioneer tools. | Denies access and notifies the user of unauthorized access attempt. |

* **Special Requirements & Technology:**
  + Secure authentication mechanism to ensure only authorized auctioneers access the tools.
  + Intuitive user interface for seamless navigation and utilization of auctioneer tools.
  + Role-based access control to restrict access to sensitive functionalities.

**Use Case Name:** Process Payments

* **Use Case ID:** UC011
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** System, Buyers, Sellers
* **Stakeholders and Their Interests:**
  + Buyers: Interested in making secure payments for auction items.
  + Sellers: Interested in receiving payments for sold items.
* **Preconditions:** Buyer has won an auction and is ready to make payment.
* **Postconditions:** Payment is successfully processed and recorded in the system.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Buyer selects the item(s) for which payment is to be made. | Displays payment options and checkout process. |
| 2. Buyer chooses the payment method and provides necessary details. | Validates payment information and processes the payment. |
| 3. System processes the payment securely. | Communicates with payment gateway for transaction processing. |

* **Extensions (Alternative Scenarios):**

**a. Payment authorization failure:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Payment authorization fails due to insufficient funds or other issues. | Notifies the buyer of the payment failure and provides guidance. |
| 2. Buyer retries payment with an alternative method. | Guides the buyer through the alternative payment process. |

**b. Payment confirmation delay:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters delays in receiving payment confirmation. | Notifies the seller of the payment delay and assures resolution. |

* **Special Requirements & Technology:**
  + Integration with secure payment gateways for transaction processing.
  + Error handling mechanism to manage payment failures and provide appropriate feedback to users.
  + Encryption and tokenization techniques to ensure the security of payment information.

**Use Case Name:** Resolve Disputes

**Use Case ID:** UC012

* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** System, Buyers, Sellers
* **Stakeholders and Their Interests:**
  + Buyers: Interested in resolving disputes related to auction transactions.
  + Sellers: Interested in fair resolution of disputes to maintain trust and reputation.
* **Preconditions:** Dispute arises between buyer and seller regarding an auction transaction.
* **Postconditions:** Dispute is successfully resolved with a satisfactory outcome for both parties.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Buyer or seller initiates the dispute resolution process. | Provides a platform for communication and resolution. |
| 2. Parties present their arguments and evidence to support their claims. | Facilitates communication and exchange of information between parties. |
| 3. System mediates the discussion and proposes a resolution. | Offers suggestions for resolving the dispute based on the presented information. |
| 4. Parties agree on a resolution and finalize the dispute. | Records the resolution in the system and ensures compliance. |

* **Extensions (Alternative Scenarios):**

**a. Disagreement on proposed resolution:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Parties fail to agree on the proposed resolution. | Facilitates further negotiation or escalation of the dispute. |
| 2. System escalates the dispute to higher authority or arbitration. | Provides options for involving a third-party mediator or arbitrator. |

**b. Resolution not reached within agreed timeframe:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. Dispute resolution process exceeds the agreed timeframe. | Notifies the parties and extends the resolution period if necessary. |

* **Special Requirements & Technology:**
  + Secure communication channels for parties to present their arguments and evidence.
  + Record-keeping functionality to document all stages of the dispute resolution process.
  + Integration with arbitration services or legal experts for complex disputes.

**Use Case Name:** Generate Auction Reports

* **Use Case ID:** UC013
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** System Administrator
* **Stakeholders and Their Interests:**
  + System Administrator: Interested in generating reports for analysis and decision-making.
  + Auctioneers: Interested in accessing performance reports for their auctions.
* **Preconditions:** System Administrator is logged in to the system and has access to reporting tools.
* **Postconditions:** Reports are generated and made available for review and analysis.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System Administrator accesses the reporting section. | Displays options for generating different types of reports. |
| 2. System Administrator selects the desired report parameters. | Prompts the administrator to specify report criteria. |
| 3. System generates the report based on the selected parameters. | Retrieves data from the database and formats it into a report. |
| 4. System presents the generated report to the administrator. | Displays the report on the interface for review and analysis. |

* **Extensions (Alternative Scenarios):**

**a. Error in report generation:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters an error while generating the report. | Alerts the administrator of the error and provides guidance. |

**b. Insufficient data for report generation:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System lacks sufficient data to generate the requested report. | Notifies the administrator of the data limitation and suggests alternative options. |

* **Special Requirements & Technology:**
  + Advanced filtering and sorting options for customizing report parameters.
  + Export functionality to download reports in various formats (e.g., CSV, PDF).
  + Data visualization tools for creating graphical representations of report data.

**Use Case Name:** Analyze Auction

* **Use Case ID:** UC014
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** System Administrator, Auctioneers
* **Stakeholders and Their Interests:**
  + System Administrator: Interested in analyzing overall auction performance and trends.
  + Auctioneers: Interested in obtaining insights into their specific auction activities.
* **Preconditions:** Relevant data for analytics is available in the system.
* **Postconditions:** Analytics insights are generated and made accessible to stakeholders.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System Administrator or Auctioneer accesses the analytics section. | Displays options for accessing different types of analytics. |
| 2. User selects the desired analytics metrics or parameters. | Prompts the user to specify criteria for generating analytics. |
| 3. System processes the selected parameters and generates analytics insights. | Analyzes the data and generates insights based on the specified criteria. |
| 4. System presents the analytics insights to the user. | Displays the insights on the interface for review and analysis. |

* **Extensions (Alternative Scenarios):**

**a. Error in analytics processing:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters an error while processing analytics. | Alerts the user of the error and provides guidance. |

**b. Insufficient data for analytics generation:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System lacks sufficient data to generate the requested analytics. | Notifies the user of the data limitation and suggests alternative options. |

* **Special Requirements & Technology:**
  + Advanced algorithms and statistical methods for data analysis.
  + Interactive dashboards for visualizing analytics insights.
  + Integration with external analytics tools for advanced analytics capabilities.

**Use Case Name:** Support Multicurrency Transaction

* **Use Case ID:** UC015
* **Scope:** Auction Management System
* **Level:** Feature
* **Primary Actors:** Users (Buyers and Sellers)
* **Stakeholders and Their Interests:**
  + Users: Interested in participating in auctions and making payments in their preferred currency.
* **Preconditions:** Users have the option to select their preferred currency.
* **Postconditions:** Users can conduct transactions in the selected currency.
* **Main Success Scenario (Two-column format):**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. User accesses the currency settings section. | Presents options for selecting preferred currency. |
| 2. User selects the desired currency from the available options. | Stores the selected currency preference in the user's profile. |
| 3. System converts all relevant prices and amounts to the selected currency. | Retrieves exchange rates and performs currency conversion as necessary. |

* **Extensions (Alternative Scenarios):**

**a. Currency conversion error:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. System encounters an error while performing currency conversion. | Alerts the user of the error and suggests retrying later. |

**b. Unsupported currency selection:**

| **Actor Action** | **System Responsibility** |
| --- | --- |
| 1. User selects a currency that is not supported by the system. | Notifies the user that the selected currency is not supported. |

* **Special Requirements & Technology:**
  + Integration with reliable currency exchange rate APIs for accurate conversion.
  + Regular updates of exchange rates to ensure currency conversion accuracy.
  + User-friendly interface for seamless currency selection and conversion.

|  |  |  |
| --- | --- | --- |
| Use Case Name |  | |
| Use Case ID |  | |
| Scope |  | |
| Level |  | |
| Primary Actors |  | |
| Stakeholders and Interests |  | |
| Pre-Conditions |  | |
| Main Scenario (Success) |  |  |
| Extensions |  |  |
| Frequency of Occurrence |  | |
| Special Requirements |  | |
| Post-Conditions |  | |