|  |  |  |  |
| --- | --- | --- | --- |
| Use cases | | | |
| # | Name | Actors | Go to use case |
| 1 | Browse search results | User and system | [click here](#Browse_search_results) |
| 2 | Manage search patterns | User and system | [click here](#Manage_search_patterns) |
| 3 | Add new search pattern | User and system | [click here](#Add_new_search_pattern) |
| 4 | Delete search pattern | User and system | [click here](#Delete_search_pattern) |
| 5 | Search EBay | User, system, and EBay | [click here](#search_EBay) |
| 6 | Go to item web page on EBay | User, system, and Internet Browser | [click here](#go_to_item_web_page) |
| 7 | Display Item’s picture | User and System | [click here](#display_item_picture) |

**Use case name: browse search results.**

**Actors: user and system.**

Basic course

|  |  |
| --- | --- |
| Actor1: user | Actor2: system |
| User runs the application |  |
|  | System displays the main window; initially empty until the user runs the search, figure 1.1. |

Alternative course

|  |  |
| --- | --- |
| Actor1: user | Actor2: system |
| If the user clicks on “quit” |  |
|  | System terminates the application. |
|  | If the control comes back form “search EBay” (which is the use case that is responsible for pulling results from EBay) use case, the system displays the results. Each result entry contains the title, price, current bid and shipping cost (figure 1.2). |
| If the user selected a specific search pattern. |  |
|  | The system filters the results to only the selected search pattern (figure 1.3). |

|  |
| --- |
|  |
| Figure 1.1: browse search results before the “search from EBay” is done |

|  |
| --- |
|  |
| Figure 1.2: browse search results after the “search from EBay” is done. Note all search results are displayed because no specific search pattern is selected. |

|  |
| --- |
|  |
| Figure 1.3: user selected the “IPhone” search pattern so the system displays only the results from that search pattern. |

**Use case name: manage search patterns.**

**Actors: user and system.**

Preconditions:

* Show search results use case is in control (Main window is open).

Basic Course

|  |  |
| --- | --- |
| Actor1: user | Actor2: system |
| User clicks on “”Manage search patterns” button. |  |
|  | System opens “Manage search patterns” window (Figure 2.1). |
| User browse previously saved patterns. |  |

Alternative Course

|  |  |
| --- | --- |
| Actor1: user | Actor2: system |
| If user clicks on “Close” button. |  |
|  | System closes “manage search patterns” window then returns control to “Show search results” use case. |

|  |
| --- |
|  |
| Figure 2.1: Manage search patterns window |

**Use case Name: add new search pattern.**

**Actors: user and system.**

Preconditions:

* Manage search patterns is in control (manage search patterns window is open).

Basic Course

|  |  |
| --- | --- |
| Actor1: User | Actor2: System |
| User clicks on “Add new search pattern” button. |  |
|  | System opens “add new search pattern window” (figure3.1) |
| User enters search Keywords and also has the option to provide more refinements which are:  1) Category (e.g. electronics)  2) Condition [new, used, not specified].  3) Price minimum and maximum limit.  4) Condition [new, used, not specified].  5) Delivery [free shipping, expedited shipping, free in-store pickup].  6) Item location [Worldwide, US only, north America, on EBay.com].  . Then clicks on the “Add” button. |  |
|  | System validates the search pattern then saves it to persistence storage then shows the user a successful message (figure 3.2). |
| User clicks on “ok” button”. |  |
|  | System closes window then returns control to “Manage patterns” use case. |

Alternative Course

|  |  |
| --- | --- |
| Actor1: User | Actor2: System |
| If user clicked on “cancel”. |  |
|  | System closes window and returns control to “Manage search patterns” use case. |
| If user provided an invalid search pattern (symbols). |  |
|  | The system displays an error message to that matter (figure 3.3). |
| User clicks on “OK” button. |  |
|  | System closes error window, then returns control to “Manage search patterns” use case. |
|  | If the system cannot write to persistent storage. An error message is displayed (figure 3.4). |
| User clicks on “OK” button. |  |
|  | System closes error window, then returns control to “Manage search patterns” use case. |

|  |
| --- |
|  |
| Figure 3.1: add new pattern window |

|  |
| --- |
|  |
| Figure 3.2: new pattern “Digital Alarm” has been added successfully |

|  |
| --- |
|  |
| Figure 3.3: Failed to add new pattern “^|~`” (invalid pattern) |

|  |
| --- |
|  |
| Figure 3.4: Failed to add new pattern “Digital Alarm”  (can no write to persistent storage) |

**Use case Name: Delete search pattern.**

**Actors: user and system.**

Preconditions:

* Manage search patterns is in control (Manage search patterns window is open).

Basic Course

|  |  |
| --- | --- |
| Actor1: user | Actor2: system |
| If selects a search pattern from the search patterns list |  |
|  | System activates the “delete” button (Figure 4.1). |
| User clicks on the “delete” button. |  |
|  | System displays a confirmation window, asking the user to confirm the intent to delete the selected pattern. |
| User clicks on “Yes” (Figure 4.2) |  |
|  | System closes the confirmation window then deletes the selected pattern from persistent storage and the displayed list and disables then “delete” button then returns control to “Manage search patterns” use case. |

Alternative Course

|  |  |
| --- | --- |
| Actor1: user | Actor2: system |
| If user clicks “No” when asked to confirm to delete(Figure 4.2). |  |
|  | System deselects the pattern and disables the “Delete” button then returns control to “Manage search patterns” use case. |
|  | If system cannot write to persistent storage to delete the pattern. Then an error message is displayed (Figure 4.3). |
| User clicks on “OK” button |  |
|  | System closes error window then deselects the pattern and disables the “delete” button then returns control to “Manage search patterns” use case. |
| If the user selects another pattern while a patter is already selected. |  |
|  | System deselects the previously selected pattern then selects the new pattern. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  | | --- | --- | |  |  | | (A) | (B) | |
| Figure 4.1: (A) Shows the window before the user selects a pattern, and (B) shows that the user selected the “Atari” pattern, so the “Delete” button is enabled. |
|  |
|  |
| Figure 4.2: pattern deletion confirmation window. |

|  |
| --- |
|  |
| Figure 4.3: Failed to delete search pattern “Attari” |

**Use case name: search EBay**

**Actors: user, system, and EBay**

Preconditions:

* The “browse search results” is in control (the browse search results window is open).

Basic Course

|  |  |  |
| --- | --- | --- |
| Actor1: user | Actor2: system | Actor3: EBay |
| User clicks on “Search” Button. |  |  |
|  | System loads the saved patterns then tests the connection to EBay then queries EBay for the saved search patterns while showing the user the progress (figure 5.1). |  |
|  |  | EBay returns search results for search patterns the system provided |
|  | System saves the results into persistent storage then compares the fresh results with all of the saved results from previous searches then identifies the new returns (results that have never been shown to the user before) then returns control to the “browse search results” use case to show the new results. |  |

Alternative Course

|  |  |  |
| --- | --- | --- |
| Actor1: user | Actor2: system | Actor3: EBay |
| User clicks on “Search” Button. |  |  |
|  | System finds that there are not any saved search patterns so an error message is displayed (figure 5.2) then control is return to “browse search results” use case. |  |
| The user chooses to abort loading the results. |  |  |
|  | System asks the user to confirm the decision to abort (figure 5.3). |  |
| User confirms the decision to abort |  |  |
|  | System closes connection with EBay then returns control to “Browse search results” use case. |  |
| The user chooses to abort loading the results. |  |  |
|  | System asks the user to confirm the decision to abort (figure 5.3). |  |
| User doesn’t confirm the decision to abort (cancels the command to abort) |  |  |
|  | System continues loading the results from EBay while showing loading progress (figure 5.1). |  |
|  | System tries to reach EBay to load search results but can not because there is no internet connection, so system aborts then displays an error message about the error (figure 5.4). |  |
| User clicks on “OK” |  |  |
|  | System returns control to the “browse search results” use case. |  |
|  | System queries EBay for search patterns. |  |
|  |  | EBay doesn’t respond (either it is down or the connection is coming from a blocked IP). |
|  | System aborts and displays an error to the matter (figure 5.5). |  |
| User clicks on “OK” |  |  |
|  | System returns control to the “browse search results” use case. |  |

|  |
| --- |
|  |
| Figure 5.1: Loading results from EBay |

|  |
| --- |
|  |
| Figure 5.2: user clicked on “search” button there are not saved search patterns |

|  |
| --- |
|  |
| Figure 5.3: System asks the user to confirm the decision to abort the searching. |

|  |
| --- |
|  |
| Figure 5.4: System cannot reach EBay because there is no internet connection. |

|  |
| --- |
|  |
| Figure 5.5: System is trying to pull search results from EBay but EBay is not responding. |

**Use case name: Go to item web page on EBay.**

**Actors: user, system, and web browser.**

Preconditions:

* The “browse search results” is in control (the browse search results window is open).

Basic Course

|  |  |  |
| --- | --- | --- |
| Actor1: user | Actor2: system | Actor3: web browser |
| User selects an item from the items list. |  |  |
|  | System highlights the selected item and enables the “Go to page ”button (figure6.1). |  |
| User clicks on “Go to page” button |  |  |
|  | System launches a web browser to the item’s page on EBay |  |
|  |  | Browser displays the item’s page on EBay |

Alternative Course

|  |  |  |
| --- | --- | --- |
| Actor1: user | Actor2: system | Actor3: web browser |
| If use selected an item while another item is already selected |  |  |
|  | System deselects the former item then selects the last clicked on item. |  |

|  |
| --- |
|  |
| Figure 6.1: User clicked on an item so the system highlighted the item and enabled the “Go to page” button. |

**Use case name: Display item’s picture.**

**Actors: user and system.**

Preconditions:

* Search has been done and results are displayed (browse usecase is in control).

Basic course

|  |  |
| --- | --- |
| Actor1: user | Actor2: system |
| User double clicks on an item from the search results list. |  |
|  | System highlights the selected item and displays a window of the item’s picture and title (figure 7.1). |
| User clicks on “close” button on the pictures window. |  |
|  | System closes (hide) the window and returns control to the “browse search results” use case. |

|  |
| --- |
|  |
| Figure 7.1: User double clicked on item 6 so the system highlighted the item and displayed a window of the items picture. |