Use case “CRUD Product”

**1. Use case code**

**UC001**

**2. Brief description**

**This use case describes interactions between the AIMS software and the product manager when the product manager needs to create, view, update or delete any products**

**3. Actor(s)**

**- Product manager (PM)**

**4. Precondition(s)**

**- User logged in as PM**

**5. Basic flows**

**5.1. Create product**

|  |  |  |
| --- | --- | --- |
| **Step** | **Actor** | **Action** |
| **1** | **AIMS Software** | **Displays Home screen and product list with details** |
| **2** | **PM** | **Chooses to create a new product** |
| **3** | **AIMS Software** | **Prompts PM to choose product type** |
| **4** | **PM** | **Chooses a desired media type** |
| **5** | **AIMS Software** | **Displays create media screen of the corresponding type** |
| **6** | **PM** | **Fills in the product data** |
| **7** | **PM** | **Requests creating the product** |
| **8** | **AIMS Software** | **Creates the product** |
| **9** | **AIMS Software** | **Notifies successful result** |
| **10** | **AIMS Software** | **Returns to home screen** |

**5.2. Read product**

|  |  |  |
| --- | --- | --- |
| **Step** | **Actor** | **Action** |
| **1** | **AIMS Software** | **Displays Home screen and product list with details** |

**5.3. Update product**

|  |  |  |
| --- | --- | --- |
| **Step** | **Actor** | **Action** |
| **1** | **AIMS Software** | **Displays Home screen and product list with details** |
| **2** | **PM** | **Chooses to update a product** |
| **3** | **AIMS Software** | **Displays update product screen of the corresponding product** |
| **4** | **PM** | **Changes the product data** |
| **5** | **PM** | **Requests updating the product** |
| **6** | **AIMS Software** | **Updates the product information** |
| **7** | **AIMS Software** | **Notifies successful result** |
| **8** | **AIMS Software** | **Returns to home screen** |

**5.4. Delete product**

|  |  |  |
| --- | --- | --- |
| **Step** | **Actor** | **Action** |
| **1** | **AIMS Software** | **Displays Home screen and product list with details** |
| **2** | **PM** | **Chooses to delete a product** |
| **3** | **AIMS Software** | **Displays confirmation message** |
| **4** | **PM** | **Confirms deleting the product** |
| **5** | **AIMS Software** | **Deletes the product** |
| **6** | **AIMS Software** | **Notifies successful result** |
| **7** | **AIMS Software** | **Returns to home screen** |

**6. Alternative flow**

**6.1. Create product**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Location** | **Condition** | **Action** | **Resume location** |
| **1** | **Step 4** | **PM cancels the flow** | **AIMS Software returns to home screen** | **Step 1** |
| **2** | **Step 6** |
| **3** | **Step 8** | **PM left any field blank before creating a product** | **AIMS notifies error and returns to create product screen** | **Step 5** |
| **4** | **PM inputs invalid data into any field** |

**6.2. Read product**

**6.3. Update product**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Location** | **Condition** | **Action** | **Resume location** |
| **1** | **Step 4** | **PM cancels the flow** | **AIMS Software returns to home screen** | **Step 1** |
| **2** | **Step 6** | **PM left any field blank before updating a product** | **AIMS notifies error and stays at update product screen** | **Step 3** |
| **3** | **PM inputs invalid data into any field** |
| **4** | **Daily limit exceeded** |

**6.4. Delete product**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Location** | **Condition** | **Action** | **Resume location** |
| **1** | **Step 4** | **PM chooses not to delete a product** | **AIMS Software returns to home screen** | **Step 1** |
| **2** | **Step 5** | **Daily limit exceeded** | **AIMS Software notifies error and returns to home screen** |

**7. Input data**

**7.1. Common information**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data field** | **Description** | **Mandatory** | **Valid condition** | **Example** |
| **1** | **Title** | **Media name** | **Yes** | **A string of characters** | **[Record] New Year Fest** |
| **2** | **Value** | **Media’s original price** | **Yes** | **- Positive integer** | **125000** |
| **3** | **Price** | **Media’s actual selling price** | **Yes** | **- Positive integer**  **- Ranging from 30% to 150% of price** | **109000** |
| **4** | **Quantity** | **Number of media product** | **Yes** | **Positive integer** | **50** |
| **5** | **Support for rush delivery** | **Eligibility of rush delivery of the product** | **Yes** | **Bit value** | **1** |

**7.2. Book**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data field** | **Description** | **Mandatory** | **Valid condition** | **Example** |
| **1** | **Category** | **Category of book** | **Yes** | **Chosen from list** | **Romance** |
| **2** | **Author** | **Book author(s)** | **Yes** | **Text** | **Stefan Gili** |
| **3** | **Cover type** | **Type of book cover** | **Yes** | **Text** | **Hard** |
| **4** | **Publisher** | **Book’s publisher** | **Yes** | **Text** | **PN** |
| **5** | **Publish Date** | **Publish date of the book** | **Yes** | **Follow format**  **DD/MM/YYYY** | **08/04/2022** |
| **6** | **Pages** | **Number of pages** | **Yes** | **Positive integer** | **220** |
| **7** | **Language** | **Book language** | **Yes** | **Text** | **English** |
| **8** | **Book image** |  |  | **Chosen from list** |  |

**7.3. CD**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data field** | **Description** | **Mandatory** | **Valid condition** | **Example** |
| **1** | **Music type** | **Type of music** | **Yes** | **Chosen from list** | **Electronic** |
| **2** | **Artist** | **Music performer** | **Yes** | **Text** | **Martin Garrix** |
| **3** | **Record label** |  | **Yes** | **Text** | **Spinner** |
| **4** | **Release date** |  | **Yes** | **Follow format**  **DD/MM/YYYY** | **12/05/2021** |
| **5** | **CD image** |  |  | **Chosen from list** |  |

**7.4. DVD**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data field** | **Description** | **Mandatory** | **Valid condition** | **Example** |
| **1** | **Disc type** | **Storage type** | **Yes** | **Chosen from list** | **USB** |
| **2** | **Director** |  | **Yes** | **Text** | **Christopher Nolan** |
| **3** | **Duration** | **DVD length in minutes** | **Yes** | **Positive number** | **160** |
| **4** | **Studio** |  | **Yes** | **Text** | **Warner Bros** |
| **5** | **Subtitles** |  | **Yes** | **Text** | **English** |
| **6** | **Release date** |  | **Yes** | **Follow format**  **DD/MM/YYYY** | **04/04/2022** |
| **7** | **Film type** |  | **Yes** | **Text** | **Fiction** |
| **8** | **DVD image** |  |  | **Chosen from list** |  |

**7.5. Record**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data field** | **Description** | **Mandatory** | **Valid condition** | **Example** |
| **1** | **Genre** | **Type of music** | **Yes** | **Chosen from list** | **Electronic** |
| **2** | **Artist** |  | **Yes** | **Text** | **Martin Garrix** |
| **3** | **Record label** |  | **Yes** | **Text** | **Spinner** |
| **4** | **Release date** |  | **Yes** | **Follow format**  **DD/MM/YYYY** | **12/05/2021** |
| **5** | **Record image** |  |  | **Chosen from list** |  |

**8. Output data**

**9. Post-conditions**

**9.1. Create product**

**- A product is created successfully**

**- Product information is stored in the system**

**- PM receives a message for creating a product successfully**

**9.2. Read product**

**- System displays a list of product with details to PM**

**9.3. Update product**

**- A product is updated successfully**

**- Product information is updated in the system**

**- PM receives a message for updating a product successfully**

**9.4. Delete product**

**- A product is deleted successfully**

**- Product information is deleted in the system**

**- PM receives a message for deleting a product successfully**

Use case “Update product price”

**1. Use case code**

**UC002**

**2. Brief description**

**This use case describes interactions between the AIMS software and the product manager when the product manager needs to update product price**

**3. Actor(s)**

**- Product manager (PM)**

**4. Precondition(s)**

**- User logged in as PM**

**5. Basic flows**

|  |  |  |
| --- | --- | --- |
| **Step** | **Actor** | **Action** |
| **1** | **AIMS Software** | **Displays Home screen and product list with details** |
| **2** | **PM** | **Chooses to update a product** |
| **3** | **AIMS Software** | **Displays update product screen of the corresponding product** |
| **4** | **PM** | **Changes the product price** |
| **5** | **PM** | **Requests updating the product** |
| **6** | **AIMS Software** | **Updates the product price** |
| **7** | **AIMS Software** | **Notifies successful result** |
| **8** | **AIMS Software** | **Returns to home screen** |

**6. Alternative flow**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Location** | **Condition** | **Action** | **Resume location** |
| **1** | **Step 4** | **PM cancels the flow** | **AIMS Software returns to home screen** | **Step 1** |
| **2** | **Step 5** | **Daily limit exceeded** | **AIMS Software notifies error and stays at update media screen** | **Step 3** |
| **3** | **Price after change is out of range** |

**7. Input data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Data field** | **Description** | **Mandatory** | **Valid condition** | **Example** |
| **1** | **Price** | **Media’s actual selling price** | **Yes** | **- Positive integer**  **- Ranging from 30% to 150% of price** | **109000** |

**8. Output data**

**9. Post-conditions**

**- Product price is updated successfully**

**- PM receives a message for updating product price successfully**