**Teatrus**

Sistem de rezervare de locuri pentru spectacolele la teatru

*-Model functional-*

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| ID and name | UC-1: Users Operations | | |
| Primary actor | Administrator | Secondary actors | - |
| Description | Represents specific operations for the administrator of the system. | | |
| Trigger | Anytime there is a need to operate a change in the system. | | |
| Preconditions | 1. The machine must be connected to the Internet. | | |
| Postconditions | - | | |
| Normal flow | * 1. **Users Operations**  1. The administrator accesses a machine preinstalled with Teatrus application and observes the main window of the software application. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

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| ID and name | UC-2: Login as an administrator | | |
| Primary actor | Administrator | Secondary actors | - |
| Description | Identifying the administrator of the Teatrus Ticket System based on credentials given and check whether the inserted data is valid. If this process is repeated more than 3 times unsuccessfully, the application will show a specific message. | | |
| Trigger | A user tries to log in the system as an administrator. | | |
| Preconditions | 1. The machine must be connected to the Internet | | |
| Postconditions | 1. The request is sent to the server, where the credentials are verified. | | |
| Normal flow | 1. **Login** 2. A user presses the login button. 3. The application displays a window compound of two fields which must be completed: username and password and a “Login” button. 4. After completion and “Login” button is triggered, a request is sent to the server to verify the validity of the data. 5. If the step of validation passed successfully, the application will display the main menu for the administrator of the Teatrus Ticket System. | | |
| Alternative flows | - | | |
| Exceptions | 1. **E1. The credentials are incorrect** 2. After the response from the server shows that authentication failed, a message of error will be displayed, notifying the current user that the credentials are incorrect. 3. If the “OK” button on the message box is pressed, the user will be redirected to the same form of login to try again. 4. If step 2.0.E1.1. is repeated more than 3 times, the current user will be notified that, in order to try again, a certain amount of time needs to pass. | | |

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| ID and name | | UC-3: Shows & Performances Operations | | | |
| Primary actor | | Administrator | Secondary actors | - | |
| Description | | Displays the main menu for the administrator’s account. | | | |
| Trigger | | After the administrator got logged in. | | | |
| Preconditions | | 1. The administrator must be logged in. | | | |
| Postconditions | | - | | | |
| Normal flow | | * 1. **Main menu**  1. After the process of login passed with success, a welcome message will be shown by the Teatrus application and a list of specific options will be displayed. | | | |
| Alternative flows | | - | | | |
| Exceptions | - | | | |

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| ID and name | UC-4: Add a show or a performance | | |
| Primary actor | Administrator | Secondary actors | - |
| Description | Gives the option of adding a show or a performance in the Teatrus Ticket System, which will appear on the screen of each client of the application. | | |
| Trigger | When the “Add a show or a performance” button in the main menu of the administrator is pressed. | | |
| Preconditions | 1. The administrator must be logged in. | | |
| Postconditions | 1. The list of shows and performances will be updated. 2. The days in which new shows or performances were inserted will be marked accordingly. | | |
| Normal flow | **4.0. Adding a show or a performance**   1. The administrator press “Add a show or a performance” button. 2. A new window with 4 input fields will be displayed (title, description, list of actors and date). 3. After all fields are completed and “Submit” button is pressed, a request will be sent to the server to check whether the show is valid ( with respect to the date field). 4. A message box will show that the show was successfully inserted in the Teatrus Ticket System. | | |
| Alternative flows | **4.1. Adding the same show or the same performance in multiple days**   1. The administrator will get through steps 4.0.1 and 4.0.2. At the end of the form, a check box will be present to ask the administrator whether the shows will be repeated or not. 2. If the check box is active, the administrator will obtain the option of choosing all the days in which the same show or the same performance will occur. | | |
| Exceptions | **4.0.E1. The form sent to the server is invalid**   1. A specific message error will be shown if at least one field is incorrectly completed.   **4.0.E2. The inserted date is expired or interfere with another date**   1. A message of error will be shown, explaining that the date inserted for a show or a performance is invalid or interfere with another date. | | |

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| ID and name | UC-5: Modify a show or a performance | | |
| Primary actor | Administrator | Secondary actors | - |
| Description | Gives the option of modifying the data of a show or a performance in the Teatrus Ticket System, change which will appear on the screen of each client of the application. | | |
| Trigger | When the “Modify a show or a performance” button in the main menu of the administrator is pressed. | | |
| Preconditions | 1. The administrator must be logged in. | | |
| Postconditions | 1. The list of shows and performances will be updated accordingly. 2. The days in which shows or performances were modified will be marked accordingly. | | |
| Normal flow | **5.0. Modifying a show or a performance**   1. The administrator press “Modify a show or a performance” button. 2. A window with the existing shows in the Teatrus Ticket System will be displayed and the administrator will choose from these which one to be modified. 3. A similar form as the one introduced in 4.0.2 will be displayed, offering the administrator all the rights over it. 4. After the “Modify” button will be pressed, a message box will show the result of the action. | | |
| Alternative flows | - | | |
| Exceptions | **5.0.E1. The form sent to the server is invalid**   1. A specific message error will be shown if at least one field is incorrectly completed.   **5.0.E2. The inserted date is expired or interfere with another date**   1. A message of error will be shown, explaining that the date inserted for a show or a performance is invalid or interfere with another date. | | |

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| ID and name | UC-6: Remove a show or a performance | | |
| Primary actor | Administrator | Secondary actors | - |
| Description | Gives the option of removing a show or a performance within Teatrus Ticket System, change which will appear on the screen of each client of the application. | | |
| Trigger | When the “Remove a show or a performance” button in the main maenu of the administrator is pressed. | | |
| Preconditions | 1. The administrator must be logged in. | | |
| Postconditions | 1. The list of shows and performances will be updated accordingly. 2. The days which contained a certain show or a certain performance before this operation will be marked accordingly. | | |
| Normal flow | **6.0. Remove a show or a performance**   1. The administrator press “Remove a show or a performance” button. 2. A window with the existing shows in the Teatrus Ticket System will be displayed and the administrator will choose from these which one to be removed. 3. After the “Remove” button will be pressed, a message box will show the result of the action. | | |
| Alternative flows | - | | |
| Exceptions | **6.0.E1. The list of existing shows and performances is empty**   1. If there are no shows or no performances to be displayed, a certain message will appear. | | |

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| ID and name | UC-7: Clients Operations | | |
| Primary actor | Client | Secondary actors | - |
| Description | Represents specific operations for the clients of the system. | | |
| Trigger | Anytime there is a need for the client to interact with the system. | | |
| Preconditions | 1. The machine must be connected to the Internet. | | |
| Postconditions | - | | |
| Normal flow | **7.0. Clients Operations**  1. The clients access a machine preinstalled with Teatrus application and observes the main window of the software application. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

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| ID and name | UC-8: Register | | |
| Primary actor | Client | Secondary actors | - |
| Description | Offers the possibility of creating an account within Teatrus Ticket System in order to simplify the processes of analyzing the following shows and performances and purchasing tickets to the desired event. | | |
| Trigger | A user presses the “Register” button displayed on the main window of the application. | | |
| Preconditions | 1. The machine must be connected to the Internet. | | |
| Postconditions | 1. A client account will be created and stored in application’s database. 2. A confirmation message will be displayed. | | |
| Normal flow | **8.0. Registering an account**   1. After “Register” button is pressed, a new window will appear with a form which contains important information for the integrity of the future client account. 2. The form contains the following input fields: name, surname, email address, password, confirm the password and a “Submit” button. 3. After the form is completed accordingly, a request with the client data will be sent to the server. 4. If the process of creating an account for a new client is successfully done, a specific message will be shown. | | |
| Alternative flows | - | | |
| Exceptions | **8.0.E1. Incorrect form**   1. A message of error will be shown if the form is not completed accordingly (i.e. at least one field is empty, the inserted email address is invalid, mismatch between “Password” and “Confirm password” fields).   **8.0.E2. Account already exists**   1. A message of error will be shown if the same email address already exists in Teatrus Ticket System database. | | |

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| ID and name | UC-9: Login as a client | | |
| Primary actor | Client | Secondary actors | - |
| Description | Identifying the current client of the Teatrus Ticket System based on credentials given and check whether the inserted data is valid. If this process is repeated more than 3 times unsuccessfully, the application will show a specific message. | | |
| Trigger | A user tries to log in the system as a client. | | |
| Preconditions | 1. The machine must be connected to the Internet | | |
| Postconditions | 1. The request is sent to the server, where the credentials are verified. | | |
| Normal flow | **9.0.** **Login**   1. A user presses the login button. 2. The application displays a window compound of two fields which must be completed: username and password and a “Login” button. 3. After completion and “Login” button is triggered, a request is sent to the server to verify the validity of the data. 4. If the step of validation passed successfully, the application will display the main menu for the current client of the Teatrus Ticket System. | | |
| Alternative flows | - | | |
| Exceptions | **9.0.E1. The credentials are incorrect**   1. After the response from the server shows that authentication failed, a message of error will be displayed, notifying the current user that the credentials are incorrect. 2. If the “OK” button on the message box is pressed, the user will be redirected to the same form of login to try again. 3. If step 2.0.E1.1. is repeated more than 3 times, the current user will be notified that, in order to try again, a certain amount of time needs to pass. | | |

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| ID and name | UC-10: Shows and Performances Operations | | |
| Primary actor | Client | Secondary actors | - |
| Description | Represents specific operations for the clients and the users of the system. | | |
| Trigger | Anytime there is a need for the client or the user to interact with the system. | | |
| Preconditions | 1. The machine must be connected to the Internet. 2. Any type of user can access this section (i.e. an existing account is not required to visualize the shows and performances or to order tickets to these events). | | |
| Postconditions | - | | |
| Normal flow | **10.0. Clients Operations**  1. The clients or users access a machine preinstalled with Teatrus application and observes the main window of the existing shows and performances options. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

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| ID and name | UC-11: Visualize available shows and performances | | |
| Primary actor | Client | Secondary actors | - |
| Description | The current client or user can view the current shows and performances within Teatrus Ticket System. | | |
| Trigger | A user or a client wishes to get more information about events which will occur in the nearby world of theatre and presses the “Visualize available shows and performances” button. | | |
| Preconditions | 1. The application must be connected to the Internet. 2. Login is optional. | | |
| Postconditions | - | | |
| Normal flow | **11.0. Visualize available shows and performances within Teatrus**   1. After “Visualize available shows and performances” button is pressed, a new window will appear and will contain the existing shows and performances, ordered chronologically. 2. If a specific show or a specific performance is accessed, a window with details about that event will be displayed, alongside the possibility of ordering tickets for that event. | | |
| Alternative flows | - | | |
| Exceptions | **11.0.E1. There are no available shows and performances**   1. If there are no available events within Teatrus, a specific message will be shown. | | |

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| ID and name | UC-12: Buy a ticket to a show or to a performance | | |
| Primary actor | Client | Secondary actors | - |
| Description | Offers the possibility of ordering multiple tickets to a show or to a performance within Teatrus. | | |
| Trigger | When the button “Order tickets” within the window with details of a specific show or performance is pressed. | | |
| Preconditions | 1. The application must be connected to the Internet. 2. Login is optional. | | |
| Postconditions | 1. The number of available tickets to the shows and events within Teatrus Ticket System will be updated. 2. A confirmation message will be displayed. | | |
| Normal flow | **12.0. Ordering a ticket**   1. After “Order tickets” button is pressed, a window with the current configuration of the tickets will be shown. This window will map each place in the theater hall (i.e. available or busy) and will display other important information, such as price, position and number. 2. If a place is selected and “Data confirmation” button is pressed, the current user must complete a form with his personal data (i.e. name, surname and email address) in order to finalize the process of acquiring the ticket. | | |
| Alternative flows | **12.1. Ordering multiple tickets**   1. After “Order tickets” button is pressed, a window with the current configuration of the tickets will be shown. This window will map each place in the theater hall (i.e. available or busy) and will display other important information, such as price, position and number. 2. If multiple places are selected and “Data confirmation” button is pressed, the current user must complete a form with his personal data (i.e. name, surname and email address) in order to finalize the process of acquiring the tickets. | | |
| Exceptions | **12.0.E1. Unavailable place within the theatre hall**   1. If a busy place is selected, a message of error will be shown and the current user will be redirected to the theatre distribution in order to continue the selection of tickets. | | |

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| ID and name | UC-13: Profile Operations | | |
| Primary actor | Client | Secondary actors | - |
| Description | Represents specific operations for the clients of the system. | | |
| Trigger | Anytime there is a need for the client to interact with the system. | | |
| Preconditions | 1. The machine must be connected to the Internet. 2. The interaction with this section is restricted and the option will appear only to the clients of the application (i.e. users with a registered account) | | |
| Postconditions | - | | |
| Normal flow | **13.0. Profile Operations**  1. The clients access the specific information stored within the Teatrus application. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

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| ID and name | UC-14: View Profile | | |
| Primary actor | Client | Secondary actors | - |
| Description | Offers the option of visualizing the stored data within the current client account (i.e. name, surname, type of account, history of attended shows and performances). | | |
| Trigger | A client wants to get information about its account and obtains this by pressing the “View Profile” button. | | |
| Preconditions | 1. The client must be logged in the Teatrus application. | | |
| Postconditions | - | | |
| Normal flow | **14.0. Visualizing the profile data**   1. After “View Profile” button is pressed, a window with information about the current client, such as name, surname, type of account and history of attended shows and performances will be displayed. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

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| ID and name | UC-15: View history of shows or performances attended | | |
| Primary actor | Client | Secondary actors | - |
| Description | Displays the history of shows and performances attended by the current client. | | |
| Trigger | A client wishes to visualize its history of events attended with the help of Teatrus application. | | |
| Preconditions | 1. Client must be logged in. 2. Client must be in the “View Profile” section to access the history of attended events. | | |
| Postconditions | - | | |
| Normal flow | **15.0. Retrieve information about history of events stored in Teatrus application**   1. In the “View Profile” section of the application, the current client has the option to access the history of attended events by pressing “History of events” button. 2. After “History of events” button is pressed, a list of attended events will be displayed chronologically, alongside the details of each specific show or performance. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

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| ID and name | UC-16: View the type of account | | |
| Primary actor | Client | Secondary actors | - |
| Description | Displays the type of the account (i.e. novice, standard, loyal) for the current client of the application. | | |
| Trigger | A client wishes to visualize the state of its account. | | |
| Preconditions | 1. Client must be logged in. 2. Client must be in the “View Profile” section to access the history of attended events. | | |
| Postconditions | - | | |
| Normal flow | **16.0. Retrieve information about the type of account registered within Teatrus application**   1. In the “View Profile” section of the application, the current client has the option to access the information about its type of account by pressing “Type of account” button. 2. After “Type of account” button is pressed, the current state of the account is showed, based on the account longevity. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

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| ID and name | UC-17: Edit Profile | | |
| Primary actor | Client | Secondary actors | - |
| Description | Offers the possibility of managing specific data stored within an account registered in Teatrus application. | | |
| Trigger | A client desires to change the associated password or wishes to delete its account, actions which can be achieved by pressing “Edit Profile" button. | | |
| Preconditions | 1. Client must be logged in. | | |
| Postconditions | 1. A message of confirmation will be shown, in case the requested actions have been successfully completed. | | |
| Normal flow | **17.0. Edit the current profile**   1. After “Edit Profile” button is pressed, a window with possible options on the current account will be displayed. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

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| ID and name | UC-18: Modify Password | | |
| Primary actor | Client | Secondary actors | - |
| Description | Offers the possibility of changing the existing password associated with the current account. | | |
| Trigger | A client desires to change its password and presses “Change account’s password” button. | | |
| Preconditions | 1. Client must be logged in. 2. Client must be in the “Edit Profile” section to change its password. | | |
| Postconditions | 1. Data associated with the current account will be updated. 2. A specific message will be shown after the completion of the process. | | |
| Normal flow | **18.0. Modifying the current password**   1. After “Change account’s password” button is pressed, a window which encapsulates a short form will be displayed on the screen. 2. The form is compounded of the following fields: old password, new password, confirm new password and a “Submit” button. | | |
| Alternative flows | - | | |
| Exceptions | **18.0.E1. The new password is invalid**   1. A message of error will be displayed if there are differences between the contents of the fields “New password” and “Confirm new password” or if the “New password” field is empty. | | |

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| ID and name | UC-19: Delete account | | |
| Primary actor | Client | Secondary actors | - |
| Description | Offers the possibility of removing the current account. | | |
| Trigger | A client desires to remove its account and presses “Remove account” button. | | |
| Preconditions | 1. Client must be logged in. 2. Client must be in the “Edit Profile” section to change its password. | | |
| Postconditions | 1. The account will be erased from Teatrus database. 2. A specific message will be shown after the completion of the process. | | |
| Normal flow | **19.0. Delete the current account**   1. After “Remove account” button is pressed, a window which encapsulates a verification question will be displayed. 2. When the question is answered and “Submit” button is pressed, the current account will be removed from Teatrus database. | | |
| Alternative flows | - | | |
| Exceptions | - | | |

* **ID and name:** Title should be descriptive and should usually begin with a verb, e.g. order, calculate, input, etc. ID can have any format but must be unique among all use cases.
* **Primary actor:** Person that wishes to accomplish a goal through the use of the system. Only a single primary actor per use case.
* **Secondary actors:** Actors that have an interest in the completion of the goal but that do not directly interact with the system.
* **Description:** Concise description of the purpose of the use case.
* **Trigger:** Condition internal or external to the system that prompts the use case to start.
* **Preconditions:** Conditions that must be true before the use case starts. Each should be labeled with an ID unique to the use case.
* **Postconditions:** Conditions that must be true after the use case ends normally. Each should be labeled with an ID unique to the use case.
* **Normal flow:** Detailed step-by-step description of the logical flow of the use case. It should describe an explicit two way interaction, with the system prompting for input and the actor responding accordingly. Each step should be numbered.
* **Alternative flows:** Flows that achieve the same goal as the normal flow but are expected to be less common or lower priority.
* **Exceptions:** Conditions that result in the normal flow ending prematurely due to an unrecoverable condition in the system. The condition that causes the flow should be clearly stated, as should be any other decisions that the actor must make in this situation.