**User**

**Requirements**

**Specification**

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# **Web application:**

After the completion of the application, the user will have the ability to:

* Write reviews and rate video games
* Create an account
* Get recommendations for video games they may like
* View statistics for video games based on genre

**Nonfunctional requirements:**

NFR 01: Correctness in the data retrieved from the database.

NFR 02: Understandability of how the web application works.

NFR 03: Maintainability of the program via the desktop application.

NFR 04: Easy access to the application.

NFR 05: Trustworthy information stored in the database.

# **Functional requirements:**

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| **FR 01** | Desktop and web applications should be connected to a database. |
| **FR 02** | The user should have the ability to make a registration. |
| **FR 03** | The user should be able to make reviews for different games. |
| **FR 04** | The user can add “Played Games” to their profile page. |
| **FR 05** | The user will get recommendations based on his “Played Games” |
| **FR 06** | The user can see statistics of the most popular games. |
| **FR 07** | User can search for games based on consoles and genres. |

# **Moscow:**

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| **Must** | * Ability to write reviews and rate video games * Account creation * Get recommendations for video games that the user may like * Statistics for video games based on genre * Be able to search games by genre |
| **Should** | * The user can add games that they have played to their profile |
| **Could** | * Add profile pictures * Other users can like/dislike a review |
| **Won’t** | * Be able to purchase games on the platform |

# **User case:**

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| **UC-001** |
| **Action** | User creates an account |
| **Actor** | User |
| **Preconditions** | 1. User should be in the web application 2. User is on the registration page |
| **Main Success Scenario** | 1. The system displays a registration form containing fields for email, username and password 2. The user fills the form 3. User creates an account successfully |
| **Extension** | 1a: The email address or password is invalid.  .1: A message is displayed.  .2: User is requested to enter credentials again. |

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| **UC-002** |
| **Action** | User logs in |
| **Actor** | User |
| **Preconditions** | 1. User should be in the web application 2. User is on the log in page |
| **Main Success Scenario** | 1. The user enters email and password 2. The user submits 3. The user is successfully logged in and redirected to their profile page |
| **Extension** | 1a: The information inputted is invalid.  .1: A message is displayed.  .2: User is requested to enter credentials again. |

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| **UC-003** |
| **Action** | User writes a review and rates the game |
| **Actor** | User |
| **Preconditions** | 1. User should be in the web application 2. User should be in the page of a game 3. User should be logged in |
| **Main Success Scenario** | 1. User gives a rating to the game (from 1 to 5) 2. User writes a review 3. Rating is submitted successfully. |
| **Extension** | 1.2a: The user did not enter any rating  .1: A message is displayed.  .2: User is requested to enter a rating  1.2a: The user did not enter any text for the review  .1: A message is displayed.  .2: User is requested to enter a review  2.1a: User has not logged in  .1: A message is displayed.  .2: User is asked to either register or log in on the platform. |

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| **UC-004** |
| **Action** | User can see how many reviews they have |
| **Actor** | User |
| **Preconditions** | 1. User should be in the web application 2. User is logged in 3. User should be in the profile page |
| **Main Success Scenario** | 1. User can see their number of reviews |
| **Extension** | 1.1a: User is not logged in  .1: A message is displayed.  .2: The user is asked to log in in order to access their profile page.  2.2a: User has no reviews  .1: The number of reviews will appear as 0. |

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| **UC-005** |
| **Action** | User filters games by specific criteria |
| **Actor** | User |
| **Precondition** | 1. User should be in the web application 2. User must be in a games page |
| **Main Success Scenario** | 1. User adds a keyword, main filter, and genre preference in the sidebar on their right 2. User is able to see all games that are of the selected genre/s, contain the added keyword in their names and are filtered in a specific way |
| **Extension** | 1.2a: The user hasn’t added any filter preference  .1: The uses sees all of the games of the selected console. |

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| **UC-006** |
| **Action** | User gets recommendations for video games that they may like |
| **Actor** | User |
| **Precondition** | 1. User should be in the web application 2. User is logged in 3. User has rated games with a rating of 4 or above |
| **Main Success Scenario** | 1. User gets recommended games based on the games that they have reviewed with 4 or above by console, rating, and genre |
| **Extension** | 1.1a: User is trying to access their profile page but they are not logged in  .1: A message is displayed.  .2: User is requested to log in or register  2.1a: User has not reviewed any games with 4 or above.  .1: The recommendations page appears empty. |

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| **UC-007** |
| **Action** | Adding consoles to the application |
| **Actor** | Admin |
| **Precondition** | 1. The admin is in the desktop application 2. The admin has opened the “Add Console” form |
| **Main Success Scenario** | 1. The admin enters information required for the adding of the console. 2. The console is successfully added. |
| **Extension** | 1.1a: Admin has entered invalid information  .1: A message is displayed.  .2: Admin is required to enter valid information. |

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| **UC-008** |
| **Action** | Removing a console from the application |
| **Actor** | Admin |
| **Precondition** | 1. The admin should be in the desktop application 2. The admin should be in the “Home” form |
| **Main Success Scenario** | 1. Admin selects a console that they would like to delete from the combo box 2. They supply and confirm 3. The console is deleted successfully |
| **Extension** | 1.1b: Admin has not selected a valid console  .1: A message is displayed that the console does not exist. |

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| **UC-009** |
| **Action** | Adding games to the application |
| **Actor** | Admin |
| **Precondition** | 1. The admin is in the desktop application 2. The admin has opened the “Add Game” form |
| **Main Success Scenario** | 1. The admin selects a console where the game should be added 2. The admin enters information required for the adding of the game. 3. The game is successfully added. |
| **Extension** | 1.1a: Admin has entered invalid information  .1: A message is displayed.  .2: Admin is required to enter valid information. |

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| **UC-010** |
| **Action** | Removing games from the application |
| **Actor** | Admin |
| **Precondition** | 1. The admin is in the desktop application 2. The admin should be in the “Home” form |
| **Main Success Scenario** | 1. The admin selects a console 2. The admin inputs the ID of the game they would like to delete 3. They supply and confirm 4. The game is deleted successfully |
| **Extension** | 1.1a: Admin has not selected an existing console  .1: A message is displayed.  .2: Admin is required to select an existing console.  3.1a: Admin has not entered a valid game ID.  .1: A message is displayed  .2: Admin is required to enter another ID. |

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| **UC-011** |
| **Action** | Show games in the desktop application |
| **Actor** | Admin |
| **Precondition** | 1. The admin is in the desktop application 2. The admin should be in the “Home” form |
| **Main Success Scenario** | 1. The admin selects a console 2. The admin supplies and confirms the “Show games” form 3. The games are displayed in the table |
| **Extension** | 2.1a: Admin has not selected an existing console  .1: A message is displayed.  .2: Admin is required to select an existing console. |

# **Test case:**

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| ID | UC | Name | Pre-Condition | Test data | Expected result |
| TC-01 | UC-001 | Create an account | Enter valid email and password | Email: [hristoganchev@gmail.com](mailto:hristoganchev@gmail.com)  Username: hristo12  Password: Pass123456 | User manages to create an account successfully. They get logged in on the platform and redirected to their account page. |
| TC-02 | UC-001 | Create an account without valid information | Enter invalid email but valid password. | Email:  hristoganchev3  Username: hristo12  Password: Pass123456 | User receives an error that they have entered invalid info. |
| TC-03 | UC-001 | Create an account without valid information | Enter valid email but invalid password. | Email:  [hristoganchev@gmail.com](mailto:hristoganchev@gmail.com)  Username: hristo12  Password: Pass1234 | The password does not fulfil the security measurements of the website (a password that contains a small and a large character). The user is requested to try again with a different password combination. |
| TC-04 | UC-002 | Log in to the account | Enter a valid email and valid password | Email: [hristoganchev@gmail.com](mailto:hristoganchev@gmail.com)  Password: Pass123456 | User manages to log in successfully. |
| TC-05 | UC-002 | Log in to the account with wrong credentials | Enter invalid email/password | Email: [hristoganchev@gmail.com](mailto:hristoganchev@gmail.com)  Password: Pass1234 | A message is shown that the email or password is incorrect. |
| TC-06 | UC-003 | User creates a review for the game | Rates the game, writes a review while logged in and submits. | Username: hristo12  Rating: 5/5  Review: “Best game ever!” | The user submits the review successfully and a message is displayed. |
| TC-07 | UC-003 | User creates a review for the game, but does not enter a rating | Writes a review while logged in and submits without entering a rating from 0 to 5. | Username: hristo12  Rating: -  Review: “Worst game ever!” | The user receives a message that they have not submitted a rating and asks them to do so. |
| TC-08 | UC-004 | User checks their number of reviews | Goes to their profile page | Number of reviews: 3 | The user can successfully see how many reviews they have made. |
| TC-09 | UC-004 | User is trying to see their number of reviews without them having made any | Goes to their profile page | Number of reviews: 0 | The user sees the number of reviews as zero. |
| TC-10 | UC-005 | User filters the games by keyword, main filter and a genre | Goes to the Game page and adds filter of their choice by using the sidebar | Keyword: Just  Main filter: Highest rating  Genre: Action | The user is able to see all the games that are of the selected criteria (keyword, main filter, genre) |
| TC-11 | UC-005 | User searches for games by using a keyword | Goes to the Game page and enters a keyword in the search bar | Keyword: Just | The user is able to see all the games that include the word “Just” in their titles |
| TC-12 | UC-005 | User searches for games by using a keyword and a selected genre | Goes to the Game page, selects genre/s of their choice and enters a keyword in the search bar | Keyword: Just  Genre: Action | The user is able to see all the games that include the word “Just” in their titles and are of the selected genre/s |
| TC-13 | UC-005 | User doesn’t add any genre or keyword | Goes to the Game page and does not select any genre or does not enter any keyword | Keyword:  Genre: | The user is able to see all of the games included in the game library |
| TC-14 | UC-006 | User gets recommendations for video games that they may like | User has reviewed games with 4 or above. |  | The user is able to see recommendations for games that they may like in the “You may like” page |
| TC-15 | UC-006 | User has not logged in and cannot see game recommendations | User has reviewed games with 4 or above but has not logged in |  | The user is trying to access their “You may like” page but need to log in first |
| TC-16 | UC-006 | User has not reviewed any games with 4 or above | User has not reviewed any games with 4 or above and cannot get recommendations |  | The page will appear as empty. |
| TC-17 | UC-007 | User adds a console | User inputs valid information needed for the creation of a console and submits successfully | Type: Playstation  Model: 4  Manufacturer: Sony  Release Date: 14/05/2014  Picture URL: <url>  Controller Type: Dual  Chat platform: None | The console is added successfully |
| TC-18 | UC-007 | User has entered invalid information for adding a console | User inputs invalid information needed for the creation of a console and submits | Type: Playstation  Model: 4  Manufacturer: Sony  Release Date: -  Picture URL: <url>  Controller Type: Dual  Chat platform: None | A message appears that the entered information is invalid and the user is requested to try again. |
| TC-19 | UC-008 | User deletes a console | User selects a valid console for deletion and presses “Delete Console” | Console: Playstation4 | The console is deleted successfully. |
| TC-20 | UC-008 | User tries to delete a console but has not selected a valid one | User selects an invalid console for deletion and presses “Delete Console” | Console: Playstation | A message is displayed that says that the selected console does not exist. |
| TC-21 | UC-009 | User adds a game | User inputs valid information needed for the creation of a game and submits | Name: Just Cause 4  Console: Playstation4  Developer: Avalanche  Release Date: 11/12/2018  Genre: Action  Picture (Game) URL: <url>  Picture (All Games) URL: <url>  Description: Just Cause 4 is a game based in the fictional land of Solis. | The user inputs the information and submits. The game is added to the selected console successfully upon submission. |
| TC-22 | UC-009 | User tries to add a game but has entered invalid information | User inputs invalid information needed for the creation of a game and submits | Name: Just Cause 4  Console: -  Developer: Avalanche  Release Date: -  Genre: Action  Picture (Game) URL: <url>  Picture (All Games) URL: <url>  Description: Just Cause 4 is a game based in the fictional land of Solis. | After submission, the user receives a message that the entered information is invalid and that they should try again. |
| TC-23 | UC-010 | The user deletes a game | The user selects a specific console and enters the ID of the game they would like to delete | Console: Playstation4  ID: 1 | Upon submission, the game is successfully removed from the database of the console. |
| TC-24 | UC-010 | The user tries to delete a game without selecting a valid console | The user does not select an existing console and enters an ID of a game they would like to delete | Console: -  ID: 1 | The user receives a message that the information is invalid. |
| TC-25 | UC-010 | The user tries to delete a game without selecting a valid ID | The user selects an existing console and enters an invalid ID of a game they would like to delete | Console: Playstation4  ID: 7 | The user receives a message that the information is invalid. |
| TC-26 | UC-011 | The user displays all games from the selected console | The user selects a valid console and submits my pressing “Show games” | Console: Playstation4 | The games are shown successfully. |
| TC-27 | UC-011 | The user tries to display all games but has not selected a valid console | The user selects an invalid console and submits my pressing “Show games” | Console: - | A message appears that the selected console does not exist. |