**Use Case: Users should be able to open a new User account with the Planetarium**

* ID: 1
* Name: user registration
* Description: Users should be able to open a new User account with the Planetarium
* System: Planetarium application
* Preconditions:
  + No registered user with username "Paul muad'dib atreides!!!!!!!!"
  + Registered user with username "Lisan"
  + Air power sea power desert!!
* Actors:
  + User (creating a new account)
  + Planetarium application (handles creation of new account)

House Harkonnen owns arrakis!!!

The Lisan will liberate Arrakis

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| --- | --- | --- | --- |
| **Scenario** | **Username** | **Password** | **Result** |
| Positive Use Case Scenario | valid username | valid password | user registered |
| Negative Use Case Scenario Username not unique | non-unique username | valid password | user not registered |
| Negative Use Case Scenario Username too long | too long username | valid password | user not registered |
| Negative Use Case Scenario Password too long | valid username | too long password | user not registered |
| Negative Use Case Scenario credentials too long | too long username | too long password | user not registered |
| Negative Use Case Scenario username taken and password too long | non-unique username | too long password | user not registered |

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| **Test Case Id** | **Description** | **Preconditions** | **Test Data** | **Steps** | **Expected Outcome** | **Actual Outcome** | **Tester** | **Status** |
| 1 | Positive Use Case Scenario | No registered user with username "Paul muad'dib atreides!!!!!!!!" | valid username valid password | 1. click option to register 2. provide valid username 3. provide valid password 4. user should be registered with the planetarium | User should be informed their account was created |  |  |  |
| 2 | Negative Use Case Scenario Username not unique | Registered user with username "Lisan" | non-unique username valid password | get to landing page  pick option to register  provide non-unique username  provide valid password  user should be informed the username is already taken | user not registered |  |  |  |
| 3 | Negative Use Case Scenario Username too long | N/A | too long username valid password | 1. get to landing page 2. pick option to register 3. provide username with 31 characters 4. provide valid password 5. user should be informed the username is too long | user not registered |  |  |  |
| 4 | Negative Use Case Scenario Password too long | N/A | valid username too long password | 1. get to landing page 2. pick option to register 3. provide valid username 4. provide password with 31 characters 5. user should be informed the password is too long | user not registered |  |  |  |
| 5 | Negative Use Case Scenario credentials too long | N/A | too long username too long password | 1. get to landing page 2. pick option to register 3. provide too long username 4. provide too long password 5. user should be informed username and password are too long | user not registered |  |  |  |
| 6 | Negative Use Case Scenario username taken and password too long | Registered user with username "Lisan" | non-unique username too long password | 1. get to landing page 2. pick option to register 3. provide non-unique username 4. provide too long password 5. user should be informed registration failed | user not registered |  |  |  |

**Use Case: Users should be able to securely access their account**

* ID: 2
* Name: user access
* Description: Users should be able to securely access their account
* System: Planetarium application
* Preconditions:
  + No registered user with username "Paul"
  + Registered user with username "Lisan"
* Actors:
  + User (access account)
  + Planetarium application (handles account access)

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| --- | --- | --- | --- |
| **Scenario** | **Username** | **Password** | **Result** |
| Positive Use Case Scenario | Username exists | Password matches username | user logged in |
| Negative Use Case Scenario account not created | Username DNE | Valid password | User not logged in |
| Negative Use Case Scenario password does not match username | Username exists | Valid Password does not match username | User not logged in |

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| **Test Case Id** | **Description** | **Preconditions** | **Test Data** | **Steps** | **Expected Outcome** | **Actual Outcome** | **Tester** | **Status** |
| 1 | Positive Use Case Scenario | Registered user with username "Lisan" | Username exists Password matches username | Get to landing page  Pick option to log in  Provide a username that exists  Provide a password that matches with username  User should be in their account | user logged in |  |  |  |
| 2 | Negative Use Case Scenario account not created | No registered user with username "Paul" | Username DNE Valid password | 1. Get to landing page 2. Pick option to log in 3. Provide a username that does not exist 4. Provide a valid password 5. user should be informed login failed | User not logged in |  |  |  |
| 3 | Negative Use Case Scenario password does not match username | Registered user with username "Lisan" | Username exists Valid Password does not match username | 1. Get to landing page 2. Pick option to log in 3. Provide a username that exists 4. provide a password that does not match with username 5. user should be informed login failed | User not logged in |  |  |  |

**Use Case: Users should be able to see planets and moons added to the Planetarium**

* ID: 3
* Name: user view celestial bodies
* Description: Users should be able to see planets and moons added to the Planetarium
* System: Planetarium application
* Preconditions:
  + Registered user with username "Lisan"
  + One or more planet in the planetarium
  + One or more moon in the planetarium
  + No moons in the planetarium
  + No planets in the planetarium
* Actors:
  + User (viewing celestial bodies)
  + Planetarium application (handles displaying celestial bodies)

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| **Scenario** | **Planets** | **Moons** | **Result** |
| Positive Use Case Scenario | One or more planet in the planetarium | One or more moon in the planetarium | User sees all celestial bodies |
| Negative Use Case Scenario no celestial bodies | No planets in the planetarium | No moons in the planetarium | User sees no celestial bodies |
| Negative Use Case Scenario no moons | One or more planet in the planetarium | No moons in the planetarium | User only sees planets |

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| **Test Case Id** | **Description** | **Preconditions** | **Test Data** | **Steps** | **Expected Outcome** | **Actual Outcome** | **Tester** | **Status** |
| 1 | Positive Use Case Scenario | * Registered user with username "Lisan" * One or more planet in the planetarium * One or more moon in the planetarium | None | 1. User with username “Lisan” in account | User sees all celestial bodies |  |  |  |
| 2 | Negative Use Case Scenario no celestial bodies | Registered user with username "Lisan"  No moons in the planetarium  No planets in the planetarium | None | 1. User with username “Lisan” in account | User sees no celestial bodies |  |  |  |
| 3 | Positive Use Case Scenario no moons | Registered user with username "Lisan"  One or more planet in the planetarium  No moons in the planetarium | None | 1. User with username “Lisan” in account | User only sees planets |  |  |  |

**Use Case: Users should be able to add new Planets to the Planetarium**

* ID: 4
* Name: user add planet
* Description: Users should be able to add new Planets to the Planetarium
* System: Planetarium application
* Preconditions:
  + Registered user with username "Lisan"
  + Planet with the name "Cadia" in planetarium
  + Planet with the name "Terra birthplace of humanity!!" not in planetarium
* Actors:
  + User (adding planet)
  + Planetarium application (handles adding new planet to the planetarium)

Tattooine the waterless scourge

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| --- | --- | --- | --- |
| **Scenario** | **Planet Name** | **Planet Image** | **Result** |
| Positive Use Case Scenario | Valid planet name | Yes | Planet added with image and user as owner |
| Positive Use Case Scenario | Valid planet name | No | Planet added without image and user as owner |
| Negative Use Case Scenario non-unique planet name | non-unique planet name | Yes | No planet added |
| Negative Use Case Scenario planet name too long | planet name too long | Yes | No planet added |
| Negative Use Case Scenario non-unique planet name | non-unique planet name | no | No planet added |
| Negative Use Case Scenario planet name too long | planet name too long | no | No planet added |

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| **Test Case Id** | **Description** | **Preconditions** | **Test Data** | **Steps** | **Expected Outcome** | **Actual Outcome** | **Tester** | **Status** |
| 1 | Positive Use Case Scenario with image | * Registered user with username "Lisan" * Planet with the name "Terra birthplace of humanity!!" not in planetarium | Valid planet name and planet image | Login user with username “Lisan”  Select planet from the drop-down menu  Input “Terra birthplace of humanity!!” for planet name  Select image from file system  Click submit planet button | Planet added with image and user as owner |  |  |  |
| 2 | Positive Use Case Scenario no image | * Registered user with username "Lisan" * Planet with the name "Terra birthplace of humanity!!" not in planetarium | Valid planet name | 1. Login user with username “Lisan” 2. Select planet from the drop-down menu 3. Input “Terra birthplace of humanity!!” for planet name 4. Click submit planet button | Planet added without image and user as owner |  |  |  |
| 3 | Negative Use Case Scenario non-unique planet name with image | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium | non-unique planet name and valid planet image | 1. Login user with username “Lisan” 2. Select planet from the drop-down menu 3. Input “Cadia” for planet name 4. Select image from file system 5. Click submit planet button | No planet added |  |  |  |
| 4 | Negative Use Case Scenario planet name too long with image | * Registered user with username "Lisan" | planet name too long and valid planet image | 1. Login user with username “Lisan” 2. Select planet from the drop-down menu 3. Input unique planet name that is 31 characters long 4. Select image from file system 5. Click submit planet button | No planet added |  |  |  |
| 5 | Negative Use Case Scenario non-unique planet name no image | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium | non-unique planet name | 1. Login user with username “Lisan” 2. Select planet from the drop-down menu 3. Input “Cadia” for planet name 4. Click submit planet button | No planet added |  |  |  |
| 6 | Negative Use Case Scenario planet name too long no image | * Registered user with username "Lisan" | planet name too long | 1. Login user with username “Lisan” 2. Select planet from the drop-down menu 3. Input unique planet name that is 31 characters long 4. Click submit planet button | No planet added |  |  |  |

**Use Case: Users should be able to remove Planets from the Planetarium**

* ID: 5
* Name: user remove planet
* Description: Users should be able to remove Planets from the Planetarium
* System: Planetarium application
* Preconditions:
  + Registered user with username "Lisan"
  + Planet with the name "Cadia" in planetarium
  + Planet with the name "Terra" not in planetarium
* Actors:
  + User (removing planet)
  + Planetarium application (handles removing planet planetarium)

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| --- | --- | --- |
| **Scenario** | **Planet** | **Result** |
| Positive Use Case Scenario | In planetarium | Planet was removed |
| Negative Use Case Scenario | Not in planetarium | No planet was removed |

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| **Test Case Id** | **Description** | **Preconditions** | **Test Data** | **Steps** | **Expected Outcome** | **Actual Outcome** | **Tester** | **Status** |
| 1 | Positive Use Case Scenario | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium | Planet in planetarium | Login user with username “Lisan”  Input planet name “Cadia” beside delete button  Click the delete  button | Planet was removed |  |  |  |
| 2 | Negative Use Case Scenario Planet not in planetarium | Registered user with username "Lisan"  Planet with the name "Terra" not in planetarium | Planet not in planetarium | 1. Login user with username “Lisan” 2. Input planet name “Terra” beside delete button 3. Click the delete button | No planet was removed |  |  |  |

**Use Case: Users should be able to add Moons to the Planetarium associated with a planet**

* ID: 6
* Name: user add moon
* Description: Users should be able to add Moons to the Planetarium associated with a planet
* System: Planetarium application
* Preconditions:
  + Registered user with username "Lisan"
  + Planet with the name "Cadia" in planetarium
  + Moon with the name "Phobos moon of the red planet!” not in planetarium
  + Moon with the name "Titan” and with owner “Cadia” in planetarium
* Actors:
  + User (adding moon)
  + Planetarium application (handles adding new moon to the planetarium)

Hyperion great moon of Saturn!!

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| --- | --- | --- | --- | --- |
| **Scenario** | **Moon name** | **Owning planet** | **Moon Image** | **Result** |
| Positive Use Case Scenario | Valid moon name | In Planetarium | Yes | Moon was added with correct owing planet with image |
| Positive Use Case Scenario | Valid moon name | In Planetarium | No | Moon was added with correct owing planet without image |
| Negative Use Case Scenario | Non-unique moon name | In planetarium | Yes | Moon not added |
| Negative Use Case Scenario | Moon name too long | In planetarium | Yes | Moon not added |
| Negative Use Case Scenario | Valid moon name | Not in planetarium | Yes | Moon not added |
| Negative Use Case Scenario | Non-unique moon name | Not in planetarium | Yes | Moon not added |
| Negative Use Case Scenario | Moon name too long | Not in planetarium | Yes | Moon not added |
| Negative Use Case Scenario | Non-unique moon name | In planetarium | No | Moon not added |
| Negative Use Case Scenario | Moon name too long | In planetarium | No | Moon not added |
| Negative Use Case Scenario | Valid moon name | Not in planetarium | No | Moon not added |
| Negative Use Case Scenario | Non-unique moon name | Not in planetarium | No | Moon not added |
| Negative Use Case Scenario | Moon name too long | Not in planetarium | No | Moon not added |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Test Case Id** | **Description** | **Preconditions** | **Test Data** | **Steps** | **Expected Outcome** | **Actual Outcome** | **Tester** | **Status** |
| 1 | Positive Use Case Scenario | Registered user with username "Lisan"  Planet with the name "Cadia" in planetarium  Moon with the name " Phobos moon of the red planet” not in planetarium | Valid moon name and image, owning planet in planetarium | Login user with username “Lisan”  Select moon from the drop-down menu  Input id for “Cadia” for orbited planet id  Input moon name “Phobos moon of the red planet”  Select image from file system  Click submit moon button | Moon was added with correct owing planet with image |  |  |  |
| 2 | Positive Use Case Scenario | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium * Moon with the name " Phobos moon of the red planet” not in planetarium | Valid moon name, owning planet in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id for “Cadia” for orbited planet id 4. Input moon name “Phobos moon of the red planet” 5. Click submit moon button | Moon was added with correct owing planet without image |  |  |  |
| 3 | Negative Use Case Scenario | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium * Moon with the name "Titan” and with owner “Cadia” in planetarium | Non-unique moon name, with image, owning planet in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id for “Cadia” for orbited planet id 4. Input moon name “Titan” 5. Select image from file system 6. Click submit moon button | Moon not added |  |  |  |
| 4 | Negative Use Case Scenario | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium | Moon name too long, with image, owning planet in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id for “Cadia” for orbited planet id 4. Input moon name that is 31 characters long 5. Select image from file system 6. Click submit moon button | Moon not added |  |  |  |
| 5 | Negative Use Case Scenario | * Registered user with username "Lisan" * Moon with the name " Phobos moon of the red planet” not in planetarium | Valid moon name, with image, owning planet not in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id not in planetarium 4. Input moon name “Phobos moon of the red planet” 5. Select image from file system 6. Click submit moon button | Moon not added |  |  |  |
| 6 | Negative Use Case Scenario | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium * Moon with the name "Titan” and with owner “Cadia” in planetarium | Non-unique moon name, with image, owning planet not in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id not in planetarium 4. Input moon name “Titan” 5. Select image from file system 6. Click submit moon button | Moon not added |  |  |  |
| 7 | Negative Use Case Scenario | * Registered user with username "Lisan" | Moon name too long, with image, owning planet Not in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id not in planetarium 4. Input moon name that is 31 characters long 5. Select image from file system 6. Click submit moon button | Moon not added |  |  |  |
| 8 | Negative Use Case Scenario | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium * Moon with the name "Titan” and with owner “Cadia” in planetarium | Non-unique moon name, without image, owning planet in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id for “Cadia” for orbited planet id 4. Input moon name “Titan” 5. Click submit moon button | Moon not added |  |  |  |
| 9 | Negative Use Case Scenario | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium | Moon name too long, without image, owning planet in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id for “Cadia” for orbited planet id 4. Input moon name that is 31 characters long 5. Click submit moon button | Moon not added |  |  |  |
| 10 | Negative Use Case Scenario | * Registered user with username "Lisan" * Moon with the name " Phobos moon of the red planet” not in planetarium | Valid moon name, without image, owning planet not in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id not in planetarium 4. Input moon name “Phobos moon of the red planet” 5. Click submit moon button | Moon not added |  |  |  |
| 11 | Negative Use Case Scenario | * Registered user with username "Lisan" * Planet with the name "Cadia" in planetarium * Moon with the name "Titan” and with owner “Cadia” in planetarium | Non-unique moon name, without image, owning planet not in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id not in planetarium 4. Input moon name “Titan” 5. Click submit moon button | Moon not added |  |  |  |
| 12 | Negative Use Case Scenario | * Registered user with username "Lisan" | Moon name too long, without image, owning planet Not in planetarium | 1. Login user with username “Lisan” 2. Select moon from the drop-down menu 3. Input id not in planetarium 4. Input moon name that is 31 characters long 5. Click submit moon button | Moon not added |  |  |  |

**Use Case: Users should be able to remove Moons from the Planetarium**

* ID: 7
* Name: user remove moon
* Description: Users should be able to remove Moons from the Planetarium
* System: Planetarium application
* Preconditions:
  + Registered user with username "Lisan"
  + Planet with the name "Cadia" in planetarium
  + Planet with the name "Terra" not in planetarium
  + Moon with the name "Phobos” not in planetarium
  + Moon with the name "Titan” and owner name “Cadia” in planetarium
* Actors:
  + User (removing moon)
  + Planetarium application (handles removing moon from the planetarium)

|  |  |  |
| --- | --- | --- |
| Scenario | Moon | Result |
| Positive Use Case Scenario | In Planetarium | Moon removed |
| Negative Use Case Scenario | Not in Planetarium | No moon is removed |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Test Case Id** | **Description** | **Preconditions** | **Test Data** | **Steps** | **Expected Outcome** | **Actual Outcome** | **Tester** | **Status** |
| 1 | Positive Use Case Scenario | Registered user with username "Lisan"  Planet with the name "Cadia" in planetarium  Moon with the name "Titan” and owner name “Cadia” in planetarium | Moon in planetarium | Login user with username “Lisan”  Input moon name “Titan” beside delete button  Click the delete button | Moon removed |  |  |  |
| 2 | Negative Use Case Scenario | Registered user with username "Lisan"  Moon with the name "Phobos” not in planetarium | Moon not in planetarium | 1. Login user with username “Lisan” 2. Input planet name “Phobos” beside delete button 3. Click the delete button | No moon is removed |  |  |  |