Test plan

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Individual project

| **ID** | **UC** | **Precondition** | **Test data** | **Expected result** |
| --- | --- | --- | --- | --- |
| TC-01 | G-01: User logs into the system | User is at the login screen | Username: TestUser  Password: 123456Aa | User is successfully logged in |
| TC-02 | G-01: User logs into the system | User is at the login screen | Username: NonExistingUser Password: 123456Aa | "Credentials did not match" message is displayed |
| TC-03 | G-02: User views space object data | User is logged in, on desktop app | Selects: Hubble Space Telescope | Hubble space telescope information is displayed |
| TC-04 | G-03: User views space object data | User is logged in, on website | Clicks: Satellites tab  Selects: ISS | ISS information is displayed |
| TC-05 | G-04: User views object details | User is logged in, on website | Clicks: Satellites tab  Selects: ISS  Clicks: Details | ISS detailed information is displayed |
| TC-06 | G-04: User views object details | User is logged in, on website | Clicks: Satellites tab  No object available | Details page is inaccessible |
| TC-07 | G-05: User searches for an object | User is logged in, on desktop app | Inputs: hub | List of matches containing “hub” is displayed |
| TC-08 | G-06: User changes object view | User is logged in, on desktop app | Selects: Hubble Space Telescope  Clicks: Blueprint View | Hubble Space Telescope blueprint view is displayed |
| TC-09 | G-06: User changes object view | User is logged in, on desktop app | No object selected  Clicks: Blueprint View | "Not Available" picture is displayed |
| TC-10 | G-07: User edits profile | User is logged in, on website | Clicks: Profile Changes details:  Name: TestNew  Clicks: Save | Changes are saved, Name is TestNew |
| TC-11 | G-07: User edits profile | User is logged in, on website | Clicks: Profile  Changes details: Email to abc12  Clicks: Save | "Invalid Email" message is displayed |
| TC-12 | G-08: User views map of objects | User is logged in, on website | Clicks: Map tab | Map with objects is displayed |
| TC-13 | G-09: User recovers password | User is on the login screen | Clicks: Forgot Password Inputs: Admin@gmail.com | Recovery email is sent |
| TC-14 | G-09: User recovers password | User is on the login screen | Clicks: Forgot Password Inputs: invalidEmail | "Email address is invalid" message is displayed |
| TC-15 | G-09: User recovers password | User is on the login screen | Clicks: Forgot Password Inputs: abc123@gmail.com | "No account registered with this email" is displayed |

| TC-16 | AD-01: User adds a new employee | Logged in as administrator | Input: FirstName: TestName LastName: TestName, Password: Pass1234 BirthDate: 01/01/2001 Email: test@mail.com  Click: Add | New employee is added |
| --- | --- | --- | --- | --- |
| TC-17 | AD-01: User adds a new employee | Logged in as administrator | Input: Input: FirstName:1 LastName: 1, Password: password BirthDate: 01/01/2024 Email: test@mail.com  Click: Add | Errors given:  “Invalid First Name”, “Invalid Last Name”, “Password is too weak”, “Invalid Birth Date”, “Email already exists” |
| TC-18 | AD-02: User removes an employee | Logged in as administrator | Select: TestName Click: Remove | Employee is removed |
| TC-19 | AD-03: User views user statistics | Logged in as administrator | Views “Users” section | "Users" statistics are displayed |
| TC-20 | AD-04: User edits user data | Logged in as administrator | Click: Edit users Select: TestName  Edit: TestName  Click: Save | User data is updated |
| TC-21 | AD-04: User edits user data | Logged in as administrator | Click: Edit users Select:TestName Edit: FirstName: 1  Click: Save | "Invalid Data" message is displayed |
| TC-22 | EM-01: User adds a new space object | Logged in as Employee | Click: Add Satellite Input: Model: “XP34”  Objective: “Telecomunication”  Launch: empty default  Manufacturer: “NASA”  Name: “ISSD”  Size: 110  Mass: 419455  Position: (0,0,0)  Velocity: (0,0,0)  Orientation: (1,0,0) OrbitType: GEOSTATIONARY  Click: Add | Confirmation of success is displayed. Orbital data calculated is: Inclination: 0.94585470763565316  LongitudeOfAscNode:  1.5707963267948966  SemiMajorAxis:  12748.533533968666  TrueAnomaly:  1.460963750542158 |
| TC-23 | EM-01: User adds a new space object | Logged in as Employee | Click: Add Satellite Input: All or some fields empty  Click: Add | "Invalid data" error message is displayed |
| TC-24 | EM-02: User removes a space object | Logged in as Employee | Click: Edit Objects Select: “ISSD”  Click: Remove | Confirmation message is displayed |
| TC-25 | EM-02: User removes a space object | Logged in as Employee | Click: Edit Objects  No Object selected  Click: Remove | "No object selected" error message is displayed |
| TC-26 | EM-03: User edits a space object | Logged in as Employee | Click: Edit Objects Select: “ISSD”  Edit: Size: 122  Click: Save Changes | Confirmation message is displayed |
| TC-27 | EM-03: User edits a space object | Logged in as Employee | Click: Edit Objects Select: “ISSD”  Edit: Size: null  Click: Save Changes | "Invalid Data" error message is displayed |
| TC-28 | GU-01: User creates a guest account | None | Navigate: Register page  Input: FirstName: TestName LastName: TestName, Password: Pass1234 BirthDate: 01/01/2001 Email: test@mail.com ProfilePictureURL: https://  imgs.search.brave.com/  tyZB0q35Aco0oc4LtOe  GSkL3iuEJUPVGCnoTm  T4Kk5w/rs:fit:1200:1200:1  /g:ce/aHR0cHM6Ly9yZW1l  /emNsYS5jb20vd3At/Y29  udGVudC91cGxv/YWRzLzI  wMjA  vMDgv/R2V0dHlJbWFnZXMt/NTYwMTczOTcuanBn  Click: Create Account | Account is created |
| TC-29 | GU-01: User creates a guest account | None | Navigate: Register page  Input: FirstName: TestName LastName: 0000, Password: weak BirthDate: 01/01/2024 Email: test@mail.com ProfilePictureURL:  Click: Create Account | Errors given:  “Invalid First Name”, “Invalid Last Name”, “Password is too weak”, “Invalid Birth Date”, “Email already exists”, “Profile Picture URL is required” |
| TC-30 | GU-02: User deletes guest account | None | Navigate: Profile page Click: Delete account Confirm: Yes | Account is deleted, user is logged out |
| TC-31 | GU-02: User deletes guest account | None | Navigate: Profile page Click: Delete account Confirm: No | No changes occur |
| TC-32 | EM-04: User calculates the minimum path from a communication satellite from another | Logged in as Employee | Navigate: Communications forms  Input: ISDD; PIX-6 | Travel list: ISSD; COM-1; Zamolxis; PIX-6 |

Testing Non-Functional Requirements

| TC-33 | NFR-01: Remote Access | None | Actions:   1. View the page in the website: <https://i501909.luna.fhict.nl> 2. Run the desktop app on the computer 3. Log in to your personal account or create an account | Expected results:   1. Completed 2. Completed 3. Completed |
| --- | --- | --- | --- | --- |
| TC-34 | NFR-02: Performance | Any user logged in | Actions:   1. Reload content page with no significant delay. 2. Navigate the application with no delay or lag | Expected Results:   1. Completed 2. Completed |
| TC-35 | NFR-03 | None | Review:   1. Code applies the Open-Closed principle in class structure. 2. There are methods present for small actions, that can be used in complex functionalities 3. Class structure respects the SOLID principles of OOD. | Expected Results:   1. Checked 2. Checked 3. Checked |
| TC-36 | NFR-04 | Not logged in | Actions:   1. In the link of the webpage, add “/Satellites”. Log in page is displayed instead. 2. Registering an account uses secure salting and hashing for the password 3. Logging in with wrong credentials is not accepted. | Expected results:   1. Completed 2. Completed 3. Completed |
| TC-37 | NFR-05 | None | Review:   1. User interface is intuitive and simplistic, on any device | Expected Result:  1.Checked |