**CHAPTER 5: TEST CASE TABLE**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Test Case** | **Expected Behavior** | **Test Input** | **Actual Output** | **Verdict** | **Remarks** |
| 1 | Valid User Login | User should be able to access their dashboard based on their roles | NRIC: T7654321A  Password: password | Welcome to HDB Management App, Applicant | Pass | Accesses the Applicant portal. |
| NRIC: S1234567M  Password: password | Welcome to HDB Management App, Manager | Pass | Accesses the Manager portal. |
| NRIC: S7654321O  Password: password | Welcome to HDB Management App, Officer | Pass | Accesses the Officer portal. |
| 2 | Invalid NRIC Format | User receives a notification about incorrect NRIC format | NRIC: T123456G  Password: password | Error: not valid IC! | Pass | NRIC is too short. |
| NRIC: S12345678A  Password: password | Error: not valid IC! | Pass | NRIC is too long. |
| NRIC: A1234567B  Password: password | Error: not valid IC! | Pass | NRIC does not begin with 'S' or 'T'. |
| 3 | Incorrect Password | System should deny access and alert the user to incorrect password | NRIC: T7654321A  Password: passwo | Error: wrong password! | Pass | Password is wrong (should either be "password" or whatever it has been changed to after changing password |
| 4 | Password Change Functionality | System updates password, prompt re login and allows login with new credentials | NRIC: T7654321A  Password: password  Select an option: 7  Current Password: password  New Password: testpw  Confirm Password: testpw  Option: 0  NRIC: T7654321A  Password: testpw | Password Changed Successfully.  Welcome to HDB Management App, Applicant. | Pass | After changing the password, the user is only able to login using the new updated password. Old default password will not work anymore. |
| 5 | Project Visibility Based on User Group and Toggle | Projects are visible to users based on their age, marital status and the visibility setting | NRIC: T7654321F  Password: password  Option: 1 | Projects:  No Projects Found. | Pass | Single, under 21 |
| NRIC: T7654321C  Password: password  Option: 1 | Projects:  ID 4: 2 ROOM ONLY in D-street. Open from 2024-02-01 to 2024-03-02. | Pass | Single, 35 and above. Only can apply for 2-Room. |
| NRIC: T7654321E  Password: password  Option: 2 | Projects:  ID 4: 2 ROOM ONLY in D-street. Open from 2024-02-01 to 2024-03-02.  ID 5: 3 ROOM ONLY in D-street. Open from 2023-02-01 to 2023-03-02.  ID 0: Amazing Apricots in A-hood. Open from 2025-03-02 to 2025-03-10.  ID 1: Bubbling Brooks in B-ville. Open from 2025-03-11 to 2025-03-13.  ID 2: Cowering Canvases in C-ity. Open from 2025-03-01 to 2025-03-01.  ID 3: Dancing Dames in D-street. Open from 2025-02-01 to 2025-03-02. | Pass | Married, above 40 years old. Can apply for any flat types. |
| 6 | Project Application | Users can only apply for projects relevant to their group or when visibility is off | NRIC: T7654321A  Password: password  Option: 1  ID: 1  Option: 1  Desired Number of Rooms: 3 | Error: inapplicable flattype! | Pass | Single 35-year-old CANNOT apply for a 3 room flat. |
| 7 | Viewing Application Status after Visibility Toggle Off | Applicants continue to have access to their application details regardless of project visibility. | NRIC: S1234567M  Password: password  Option: 4, ID: 0  Option: 4  <Logout>  NRIC: T7654321B  Password: password  Option: 5 | ID 6: B applying for Amazing Apricots, currently SUCCESSFUL and NOT withdrawing. | Pass | Manager toggles visibility of Amazing Apricots project to off. Applicant is still able to view application details after visibility is toggled off. |
| 8 | Single Flat Booking per Successful Application | System allows booking one flat and restricts further bookings | NRIC: S7654321O  Password: password  Option: 3, ID: 0  Option: 4, Option: 1  Select an application by ID: 6, Option: 4, Option: 1  Select an application by ID: 6 | Error: application not successful! | Pass | Officer is unable to book a second flat for the applicant, only 1 booking. |
| 9 | Applicant’s enquiries management | Enquiries can be successfully submitted, displayed, modified, and removed. | NRIC: T7654321B  Password: password  Option: 1, ID: 1  Option: 2  Type your enquiry: How much?  Option: 3  ID: 2  Edit your enquiry: How much!!!  Option: 2  ID: 2 | <After creating enquiry>  ENQUIRIES  ID 2: B: How much?  <After editing enquiry>  Enquiry edited.  Enquiries:  ID 2: B: How much!!!  <After deleting enquiry>  Enquiry deleted. | Pass | Applicant is able to create, edit, and delete his enquiry. |
| 10 | HDB Officer Registration  Eligibility | System allows registration only under compliant conditions | NRIC: S7654329O  Password: password  Option: 6  Option: 7  ID: 2  NRIC: S7654321O  Password: password  Option: 6  Option: 7  ID: 3 | No Applications Found. Applying for: ID 2: Cowering Canvases in C-ity. Open from 2025-03-01 to 2025-03-01.  ID 2: O2 applying for Cowering Canvases, currently PENDING and NOT withdrawing.  ID 5: O applying for Dancing Dames, currently PENDING and NOT withdrawing.  Error: has applied for project! | Pass | Officer is able to register for a Project if he does not have any pending applications.  Officer is unable to register for a Project if he is an applicant for another project. |
| 11 | HDB Officer Registration Status | Officers can view pending or approved status updates on their profiles. | NRIC: S7654321O  Password: password  Option: 1  ID: 0  Option: 6  NRIC: S1234567M  Password: password  Option: 2  ID: 0  Option: 5  Option: 1  Select an application by ID: 2  Option: 1  NRIC: S7654321O  Password: password  Option: 1  ID: 0  Option: 6 | Applications:  ID 2: C applying for Amazing Apricots, currently PENDING and NOT withdrawing.  <After Manager approves applicant>  ID 2: C applying for Amazing Apricots, currently SUCCESSFUL and NOT withdrawing. | Pass | After the Manager makes an update to an applicant’s application, the Officer of that project is able to view pending or approved status on their profiles. |
| 12 | Project Detail Access for HDB Officer | Officers can always access full project details, even when visibility is turned off. | NRIC: S1234567M  Password: password  Option: 2  ID: 0  Option: 4  NRIC: S7654321O  Password: password  Option: 1  ID: 0 | <Visibility set to no>  PROJECT DETAILS  Project ID 0:  Name: Amazing Apricots  Neighbourhood: A-hood  2 Room Units Available: 1  3 Room Units Available: 3  Application Period: 2025-03-02 to 2025-03-10  Visible: no  STAFF DETAILS  Manager: M  Officers:  O  ENQUIRIES  ID 0: A: Hello hello M: Good evening.  ID 1: A: HiHi O: Hello? | Pass | Officer of the project is still able to view project details even when visibility is set to ‘no’. |
| 13 | Restriction on Editing Project Details | Edit functionality is disabled or absent for HDB Officers. | NRIC: S1234567M  Password: password  Option: 2  ID: 0  Option: 1  NRIC: S7654321O  Password: password  Option: 1  ID: 0 | <Manager>  Editing Project Details…  <Officer>  <No option to edit project details> | Pass | HDB Officers are unable to access the edit functionality for Projects. |
| 14 | Response to Project Enquiries | Officers & Managers can access and respond to enquiries efficiently. | NRIC: T7654321A  Password: password  Option: 1  ID: 1  Option: 2  Type your enquiry: How much?!  NRIC: S1234567M  Password: password  Option: 2  ID: 1  Option: 7  Select an enquiry by ID: 2  Type your enquiry: 1 dollar | <Applicant makes an enquiry>  ENQUIRIES  ID 2: A: How much?!  <Manager or Officer replies to enquiry>  ENQUIRIES  ID 2: A: How much?! M: 1 dollar | Pass | Managers are able to access and respond to enquiries made. Officers are also able to access and respond to enquiries made. |
| 15 | Flat Selection and Booking Management | Officers retrieve the correct application, update flat availability accurately, and correctly log booking details in the applicant’s profile. | NRIC: S7654321O  Password: password  Option: 3  ID: 0  Option: 6  Option: 1  Select an application by ID: 6  Option: 7 | PROJECT DETAILS  Project ID 0:  Name: Amazing Apricots  Neighbourhood: A-hood  2 Room Units Available: 1  3 Room Units Available: 3  Application Period: 2025-03-02 to 2025-03-10  Visible: yes  ID 6: B applying for Amazing Apricots, currently SUCCESSFUL and NOT withdrawing.  Application booked.  2 Room Units Available: 0  APPLICATION ID 6  Name: B  NRIC: T7654321B  Age: 21  Marital Status: MARRIED  Flat Type: TWO\_ROOM  Project: ID 0: Amazing Apricots in A-hood. Open from 2025-03-02 to 2025-03-10.  Status: BOOKED  Withdrawing: NOT | Pass | After the Officer books a flat for a successful applicant, the remaining number of flats with the same room type is updated. Officer can retrieve the applicant’s BTO application with applicant’s NRIC, update applicant’s project status, from “successful” to  “Booked”, and update applicant’s profile with the type of flat (2-Room or 3  Room) chosen under a project. |
| 16 | Receipt Generation for Flat Booking | Accurate and complete receipts are generated for each successful booking | NRIC: S7654321O  Password: password  Option: 1  ID: 0  Option: 6  Option: 1  Select an application by ID: 6  Option: 7 | Application booked.  <Receipt Generation>  APPLICATION RECEIPT  APPLICATION ID 6  Name: B  NRIC: T7654321B  Age: 21  Marital Status: MARRIED  Flat Type: TWO\_ROOM  Project: ID 0: Amazing Apricots in A-hood. Open from 2025-03-02 to 2025-03-10.  Status: BOOKED  Withdrawing: NOT  PROJECT DETAILS  Project ID 0:  Name: Amazing Apricots  Neighbourhood: A-hood  2 Room Units Available: 0  3 Room Units Available: 3  Application Period: 2025-03-02 to 2025-03-10  Visible: yes  STAFF DETAILS  Manager: M  Officers:  O  ENQUIRIES  ID 0: A: Hello hello M: Good evening.  ID 1: A: HiHi O: Hello? | Pass | After booking the flat for a successful applicant, the program is able to generate accurate receipts for each applicant. Receipts of other applicants have been omitted in this report due to page limit. |
| 17 | Create, Edit, and Delete BTO Project Listings | Managers should be able to add new projects, modify existing project details, and remove projects from the system | NRIC: S1234567M  Password: password  Option: 2  ID: 0  Option: 1  Enter name: BeepBoop Residence  Enter neighbourhood: Serangoon  Enter number of 2-room units: 2  Enter number of 3-room units: 4  Enter a date (yyyy-mm-dd): 2025-03-02  Enter a date (yyyy-mm-dd): 2025-03-10  Enter number of officer slot: 3  Option: 1  Enter the New Project's Details.  Enter name: Cardiff Town  Enter neighbourhood: Clementi  Enter number of 2-room units: 3  Enter number of 3-room units: 3  Enter a date (yyyy-mm-dd): 2025-04-04  Enter a date (yyyy-mm-dd): 2025-04-11  Enter number of officer slot: 3  Option: 2  Confirm Delete? Type 1 to accept: 1 | <Editing Existing Project>  PROJECT DETAILS  Project ID 0:  Name: BeepBoop Residence  Neighbourhood: Serangoon  2 Room Units Available: 2  3 Room Units Available: 4  Application Period: 2025-03-02 to 2025-03-10  Visible: yes  <Adding new Project>  Project created with ID 6.  PROJECT DETAILS  Project ID 6:  Name: Cardiff Town  Neighbourhood: Clementi  2 Room Units Available: 3  3 Room Units Available: 3  Application Period: 2025-04-04 to 2025-04-11  Visible: yes  <Deleting the project>  Project Deleted. | Pass | Managers are able to edit and delete existing projects, as well as create new project listings. |
| 18 | Single Project Management per Application Period | System prevents assignment of more than one project to a manager within the same application dates. | NRIC: S1234567M  Password: password  Option: 5  ID: 0  <Enter>  Option: 5  ID: 1  Option: 1  Enter a date (yyyy-mm-dd): 2025-03-02  Enter a date (yyyy-mm-dd): 2025-03-10 | PROJECT DETAILS  Project ID 0:  Name: Amazing Apricots  Neighbourhood: A-hood  2 Room Units Available: 1  3 Room Units Available: 3  Application Period: 2025-03-02 to 2025-03-10  Visible: yes  STAFF DETAILS  Manager: M  Error: overlapping dates! | Pass | System is unable to assign projects within the same application dates to the same manager. |
| 19 | Toggle Project Visibility | Changes in visibility should be reflected accurately in the project list visible to applicants | NRIC: T7654321B  Password: password  Option: 1  NRIC: S1234567M  Password: password  Option: 2  ID: 0  Option: 4  Option: 2  ID: 1  Option: 4  NRIC: T7654321B  Password: password  Option: 1 | <Visibility On>  Projects:  ID 4: 2 ROOM ONLY in D-street. Open from 2024-02-01 to 2024-03-02.  ID 5: 3 ROOM ONLY in D-street. Open from 2023-02-01 to 2023-03-02.  ID 0: Amazing Apricots in A-hood. Open from 2025-03-02 to 2025-03-10.  ID 1: Bubbling Brooks in B-ville. Open from 2025-03-11 to 2025-03-13.  ID 2: Cowering Canvases in C-ity. Open from 2025-03-01 to 2025-03-01.  ID 3: Dancing Dames in D-street. Open from 2025-02-01 to 2025-03-02.  <After turning visibility off>  Projects:  ID 4: 2 ROOM ONLY in D-street. Open from 2024-02-01 to 2024-03-02.  ID 5: 3 ROOM ONLY in D-street. Open from 2023-02-01 to 2023-03-02.  ID 2: Cowering Canvases in C-ity. Open from 2025-03-01 to 2025-03-01.  ID 3: Dancing Dames in D-street. Open from 2025-02-01 to 2025-03-02. | Pass | After the Manager toggles visibility off, those Projects with visibility turned off will not show up in Applicant’s list when he lists all Projects. |
| 20 | View All and Filtered Project Listings | Managers should see all projects and be able to apply filters to narrow down to their own projects. | NRIC: S1234567M  Password: password  Option: 2  Option: 3  Option: 3  Type your query: A-hood  <Enter>  Option: 2 | <Before Filtering>  Projects:  ID 4: 2 ROOM ONLY in D-street. Open from 2024-02-01 to 2024-03-02.  ID 5: 3 ROOM ONLY in D-street. Open from 2023-02-01 to 2023-03-02.  ID 0: Amazing Apricots in A-hood. Open from 2025-03-02 to 2025-03-10.  ID 1: Bubbling Brooks in B-ville. Open from 2025-03-11 to 2025-03-13.  ID 2: Cowering Canvases in C-ity. Open from 2025-03-01 to 2025-03-01.  ID 3: Dancing Dames in D-street. Open from 2025-02-01 to 2025-03-02.  <After Filtering>  Projects:  ID 0: Amazing Apricots in A-hood. Open from 2025-03-02 to 2025-03-10. | Pass | Managers are able to view all their projects before filtering and view those select projects after filtering. |
| 21 | Manage HDB Officer Registrations | Managers handle officer registrations effectively, with system updates reflecting changes accurately. | NRIC: S7654329O  Password: password  Option: 7  ID: 3  NRIC: S1234569M  Password: password  Option: 2  ID: 3  Option: 6  Option: 1  Select an application by ID: 2  Option: 1 | OFFICER APPLICATIONS  Remaining Officer Slots: 1  ID 2: O2 applying for Dancing Dames, currently PENDING and NOT withdrawing.  Completed.  OFFICER APPLICATIONS  Remaining Officer Slots: 0  ID 2: O2 applying for Dancing Dames, currently SUCCESSFUL and NOT withdrawing. | Pass | After an officer registers for a Project as an Officer, the Manager of said project is able to register the Officer under the Project. |
| 22 | Approve or Reject BTO Applications and Withdrawals | Approvals and rejections are processed correctly, with system updates to reflect the decision | NRIC: S1234567M  Password: password  Option: 4  ID: 0  Option: 5  Option: 1  Select an application by ID: 2  Option: 1 | <Before approving>  ID 2: C applying for Amazing Apricots, currently PENDING and NOT withdrawing.  <After approving>  Completed.  ID 2: C applying for Amazing Apricots, currently SUCCESSFUL and NOT withdrawing. | Pass | Managers are able to successfully approve and reject BTO applications and withdrawals. |
| 23 | Generate and Filter Reports | Accurate report generation with options to filter by various categories. | NRIC: S1234567M  Password: password  Option: 7 Option: 2  Option: 2  Option: 6 | Current Filters:  None.  Current Filters:  Marital Status: SINGLE  Applications:  APPLICATION ID 0  Name: A  NRIC: T7654321A  Age: 35  Marital Status: SINGLE  Flat Type: TWO\_ROOM  Project: ID 0: Amazing Apricots in A-hood. Open from 2025-03-02 to 2025-03-10.  Status: WITHDRAWN  Withdrawing: SUCCESSFUL  APPLICATION ID 2  Name: C  NRIC: T7654321C  Age: 35  Marital Status: SINGLE  Flat Type: TWO\_ROOM  Project: ID 0: Amazing Apricots in A-hood. Open from 2025-03-02 to 2025-03-10.  Status: PENDING  Withdrawing: NOT | Pass | Managers are able to apply filters such as Applicant’s Age, Marital Status, Flat Types, etc. After applying filters, only those select filtered projects will appear when listing all projects. |