

Appendix C: Test 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: Covering 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	System allows booking one flat and restricts	NRIC: S7654321O Password: password Option: 3, ID: 0 Option: 4, Option: 1	Error: application not successful!	Pass	Officer is unable to book a second flat for the applicant, only 1 booking.

	Application	further bookings	Select an application by ID: 6, Option: 4, Option: 1 Select an application by ID: 6			
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	NRIC: T7654321A Password: password Option: 1	<Applicant makes an enquiry> ENQUIRIES ID 2: A: How much?!	Pass	Managers are able to access and respond to enquiries made. Officers

		respond to enquiries efficiently.	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	<Manager or Officer replies to enquiry> ENQUIRIES ID 2: A: How much?! M: 1 dollar		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,	NRIC: S1234567M Password: password Option: 2 ID: 0 Option: 1	<Editing Existing Project> PROJECT DETAILS Project ID 0: Name: BeepBoop Residence Neighbourhood: Serangoon 2 Room Units Available: 2	Pass	Managers are able to edit and delete existing projects, as well as create new project listings.

		and remove projects from the system	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	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.		
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.	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.

				ID 3: Dancing Dames in D-street. Open from 2025-02-01 to 2025-03-02.		
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 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: Covering 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.