

Test Number	Test Case Type	Description	Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1	Functionality	This test is to verify that address validation works correctly when creating a customer. Testing both a valid and invalid address reference numbers.	Traverse to create customer Enter a valid name and national ID Complete photo ID section When reaching address verification, test various address inputs	Option "2" for sign up customer Option "1" continue sign up "Jane Doe" as name, "AB123456C" as National ID number For address testing: <ol style="list-style-type: none"> 1. Empty reference number 2. "12" (too short) 3. "A" repeated 51 times (too long) 4. "UTILITY-REF-12345" (valid) 5. "COUNCIL-TAX-2025" (valid) 	The program should reject empty, too short, and too long address references with clear error messages. Valid references should be accepted and proceed to confirmation.	The program rejected empty inputs, short inputs below three characters and inputs longer than thirty characters. Each rejection provided a clear error message prompting the user to try again. Valid references were accepted and the program moved to confirmation screen	Pass

2	Functionality	Testing that address document type selection works correctly and validates user input	<p>Reach address verification step in customer creation</p> <p>Test invalid inputs</p> <p>Test help feature</p> <p>Test cancellation</p>	<ul style="list-style-type: none"> - Invalid number "5" - Empty input - Non-numeric input "abc" - Option "3" for help - Option "0" to cancel - Valid option 1 or 2 	<p>Invalid inputs should show error messages. Help should display context information. Cancel should return to previous menu. Valid selection should proceed to reference number input</p>	<p>The program denied the first two invalid inputs and accepted the non-numeric input. Help displayed contextual information in address menu and confirmation menu. Cancel operation aborted the process and edit details option restarted the customer creation process</p>	Fail
3	Input Validation	Testing address reference number validation with special	<p>Test various address reference formats</p> <p>Test boundary conditions</p>	<ol style="list-style-type: none"> 1. "123" 2. "A" repeated 30 times 3. "UTIL-2025-REF001" 4. "CTAX/2025/Q1/123" 	<p>Valid formats with hyphens, slashes, spaces should be accepted. Invalid characters should be rejected with an error message</p>	<p>The program accepted inputs with hyphens, slashes and spaced. The program</p>	Fail

		characters and edge cases	Test special characters	5. "COUNCIL TAX 2025" 6. "REF@#\$^&123"		accepted special characters and did not reject it with an error message	
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Testing Notes:

This section here is to provide description that gives clarity to any glaring issues that needs addressing, information not applicable for the table and useful advice needed.

Test Number 1

Step 1 | Sign up customer:

```
= Acme Teller System =  
== Main Menu ==  
1. Find Customer  
2. Sign Up Customer  
3. Switch Customer  
4. Help  
0. Exit  
  
Select option: 2
```

Step 2 | Continue with sign up:

```
≡ Sign Up Customer ≡  
To create a new customer account, please provide the following information.  
1. Continue with Sign Up  
2. Help  
0. Back to Main Menu|  
  
Select an option: 1
```

Step 3 | Insert name, national ID and passport number:

```
Creating new customer...  
≡ Create New Customer≡  
Please enter the following information:  
  
Full Name: Jane Doe  
National ID Number: AB123456C  
  
Photo ID Number: 231321231
```

Step 4 | Address testing:

```
--- Address Information ---  
Please select the address verification document provided:  
1. Utility Bill (gas, electricity, water)  
2. Council Tax Letter  
3. Help  
0. Cancel Operation  
  
Select an option: 2
```

```
--- Council Tax Letter Details ---  
Council Tax Letter Reference Number:  
Error: Council Tax Letter reference number cannot be empty.  
Council Tax Letter Reference Number: 12  
Error: Reference number must be at least 3 characters long.  
Council Tax Letter Reference Number: AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Error: Reference number cannot exceed 30 characters.  
Council Tax Letter Reference Number: UTILITY-REF-12345
```

```
--- Council Tax Letter Details ---  
Council Tax Letter Reference Number: COUNCIL-TAX-2025
```

Test Number 2

Step 1 | Reach address verification:

```
≡ Sign Up Customer ≡  
To create a new customer account, please provide the following information.  
1. Continue with Sign Up  
2. Help  
0. Back to Main Menu  
  
Select an option: 1
```

```
Creating new customer...  
≡ Create New Customer ≡  
Please enter the following information:  
  
Full Name: John Doe  
National ID Number: AB123456C
```

```
--- Photo Identification ---  
1. Passport  
2. Driving License  
3. Help  
0. Cancel Operation  
  
Select an option: 1  
Photo ID Number: 987654321
```

```
--- Address Information ---  
Please select the address verification document provided:  
1. Utility Bill (gas, electricity, water)  
2. Council Tax Letter  
3. Help  
0. Cancel Operation  
  
Select an option: 1
```

Step 2 | Test invalid inputs:

```
--- Utility Bill Details ---  
Utility Bill Reference Number: 5  
Error: Reference number must be at least 3 characters long.  
Utility Bill Reference Number:  
Error: Utility Bill reference number cannot be empty.  
Utility Bill Reference Number: abc
```

Step 3 | Test help feature

--- Address Information ---

Please select the address verification document provided:

1. Utility Bill (gas, electricity, water)
2. Council Tax Letter
3. Help
0. Cancel Operation

Select an option: 3

≡ Help ≡

--- Address Verification Help ---

This process verifies the customer's address through documentation

Acceptable documents:

1. Utility Bill - Recent bill for gas, electricity or water services
(must be less than 3 months old and show customer's name and address)
2. Council Tax Letter - Official council tax statement or bill
(must be for the current tax year and show customer's name and address)
3. Help - Display this help information
0. Cancel Operation - Return to previous menu

Press Enter to continue...

```
=== Confirm Customer Details ===  
Name: John Doe  
National ID: AB123456C  
Photo ID Type: Passport  
Photo ID: 987654321  
Address Document Type: Utility Bill  
Address Reference Number: abc  
  
1. Confirm and Create Customer  
2. Edit Details  
3. Help  
0. Cancel Operation  
Select an option: 3
```

```
=== Help ===  
--- Confirm Customer Help ---  
Please review all customer details carefully before submission.  
  
1. Confirm and Create Customer - Save customer to database  
2. Edit Details - Make changes to customer information  
3. Help - Display this help information  
0. Cancel Operation - Abort customer creation  
  
Press Enter to continue...
```



```
1. Confirm and Create Customer
2. Edit Details
3. Help
0. Cancel Operation
Select an option: 0

Operation cancelled
```

```
1. Confirm and Create Customer
2. Edit Details
3. Help
0. Cancel Operation
Select an option: 2

Editing customer details...

≡ Create New Customer ≡
Please enter the following information:

Full Name:
```

Test Number 3

Step 1 | Test various address reference formats:

```
--- Utility Bill Details ---  
Utility Bill Reference Number: 123  
  
=== Confirm Customer Details ===  
Name: Jane Doe  
National ID: AB123456C  
Photo ID Type: Passport  
Photo ID: 987654321  
Address Document Type: Utility Bill  
Address Reference Number: 123
```

```
--- Utility Bill Details ---  
Utility Bill Reference Number: UTIL-2025-REF001  
  
=== Confirm Customer Details ===  
Name: JOHN DOE  
National ID: AB123456T  
Photo ID Type: Passport  
Photo ID: 123456789  
Address Document Type: Utility Bill  
Address Reference Number: UTIL-2025-REF001
```

```
--- Utility Bill Details ---  
Utility Bill Reference Number: CTAX/2025/Q1/123  
  
=== Confirm Customer Details ===  
Name: JOHN DOE  
National ID: AV123456E  
Photo ID Type: Passport  
Photo ID: 123456789  
Address Document Type: Utility Bill  
Address Reference Number: CTAX/2025/Q1/123
```

```
--- Utility Bill Details ---  
Utility Bill Reference Number: COUNCIL TAX 2025  
  
=== Confirm Customer Details ===  
Name: JOHN DOE  
National ID: AB1234560  
Photo ID Type: Passport  
Photo ID: 123456789  
Address Document Type: Utility Bill  
Address Reference Number: COUNCIL TAX 2025
```

Step 2 | Test boundary conditions:

```
--- Utility Bill Details ---
Utility Bill Reference Number: AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Error: Reference number cannot exceed 30 characters.
Utility Bill Reference Number: AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

=== Confirm Customer Details ===
Name: JOHN DOE
National ID: AB123456R
Photo ID Type: Passport
Photo ID: 987654321
Address Document Type: Utility Bill
Address Reference Number: AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```

Step 3 | Test special characters:

```
--- Utility Bill Details ---
Utility Bill Reference Number: REF@#$^&123

=== Confirm Customer Details ===
Name: JOHN DOE
National ID: DC123456E
Photo ID Type: Passport
Photo ID: 123456789
Address Document Type: Utility Bill
Address Reference Number: REF@#$^&123
```