

Guru99 Bank Web Application

Eva Eres TesterRemoteEE24

CONTENTS

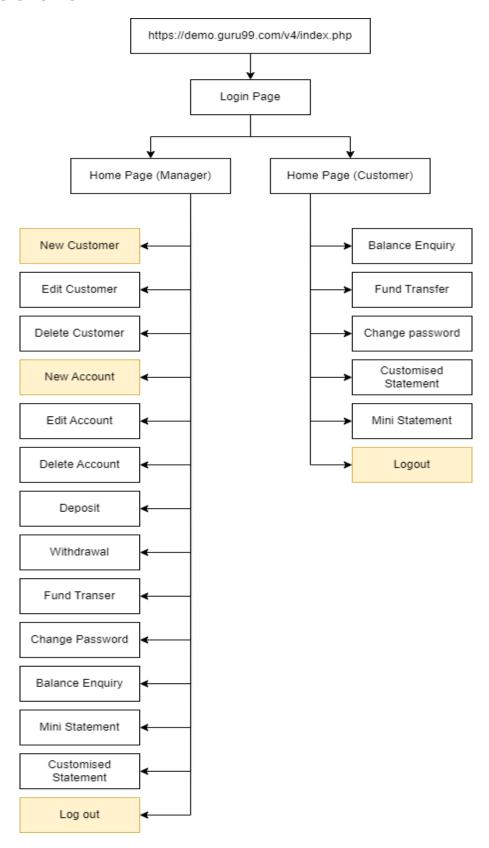
OVERVIEW		
TESTING SECTION		
TEST CHECKLIST	5	
TEST CASES	6	
TestRail	6	
Master	7	
Login & Logout	7	
New Customer	8	
Customer Name	9	
Gender	12	
Date of Birth	13	
Address	17	
City	20	
State	24	
PIN	28	
Mobile Number	32	
E-mail	35	
Password	38	
New Account	39	
Customer ID	40	
Account Type	43	
Initial deposit	44	
Integration	48	
Customer	52	
Login & Logout	52	
Test runs	53	
FOUNDED BUGS	55	
Functional bugs	55	
Exploratory bugs	55	
IMPROVEMENTS		
TEST DESIGN TECHNIQUES		
REFLECTION	63	

OVERVIEW

The <u>Guru99</u> Bank is a web application that provides functionality for banking facilities to its customers. It is a standard emulation for adding, editing, and deleting customers and accounts, depositing and withdrawing money, and all other money-transferring operations.

The purpose of the project is to assess the user registration functionality of the Guru99 Bank web application and identify any non-compliance with the application's requirements.

TESTING SECTION

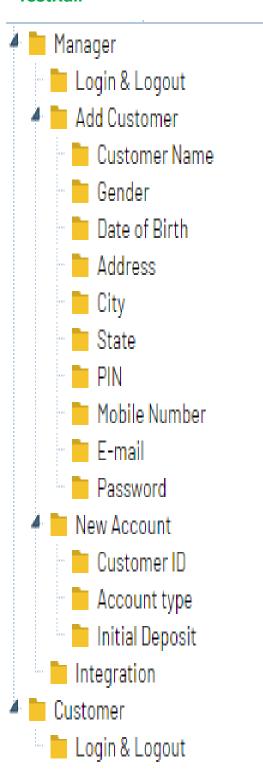


TEST CHECKLIST

ID	Test Scenario		Test Cases
		Login &	
1.1		Logout	Verify that a manager can log in and log out
2.1			Verify that a manager can add a new customer record
2.2			Verify that the customer's name field does not accept numbers, special symbols, or blank input
2.3]		Verify that the gender radio button is accessible and operational
2.4			Verify that the date of birth field does not allow entry of future dates, individuals younger than 18 years old, or individuals older than 150 years old
2.5	Manager	New Customer	Verify that the address field does not accept only numbers, special symbols, or blank input
2.6			Verify that the city field does not accept only numbers, special symbols, or blank input and controls for city existence
2.7			Verify that the state field does not accept only numbers, special symbols, or blank input and controls for city existence
2.8			Verify that the PIN field does not accept only characters, special symbols, or blank input and prompts for a 6-digit PIN
2.9			Verify that the mobile number field does not accept characters, special symbols, or blank input
2.10			Verify that the email field does not accept inputs without '@', blank input, or an invalid top-level domain
2.11			Verify that the password field does not accept blank input
3.1		New Account	Verify that a manager can create a new customer account
3.2			Verify that the customer ID field does not accept characters special symbols or blank input
3.3			Verify that the account type selector is accessible and operational
3.4			Verify that the initial deposit field accepts characters, special symbols, blank input, or amounts lower than 500
1.2	Customer	Login & Logout	Verify that a customer can log in and log out

TEST CASES

TestRail

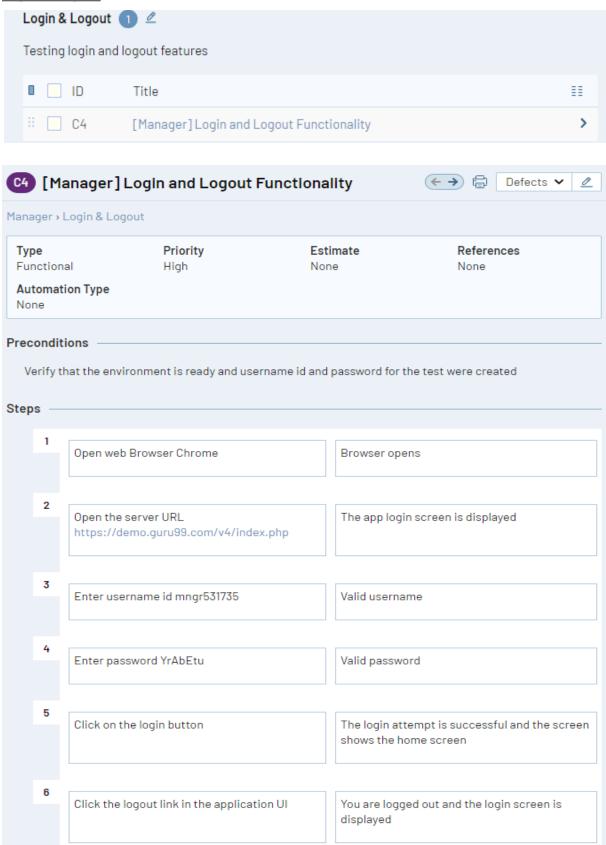


Before starting to test the bank web application, I reviewed the project <u>requirements</u>, which described that the web application is accessible from two roles: manager and customer. I decided to test the login and logout functionalities, as well as adding customers and creating new accounts from the manager's side. From the customer's perspective, I focused solely on the login and logout functionality. In total, I created 43 test cases. To enhance clarity, I organized these test cases into manager and customer sections within TestRail. In the manager's section, as shown in the screenshot on the left, I created subsections under features, and within these subsections, there are test cases for each data field.

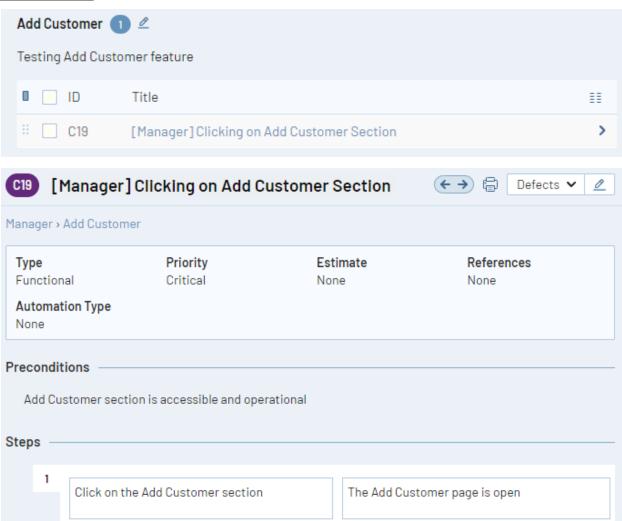
Master

Testing the features associated with the manager's role

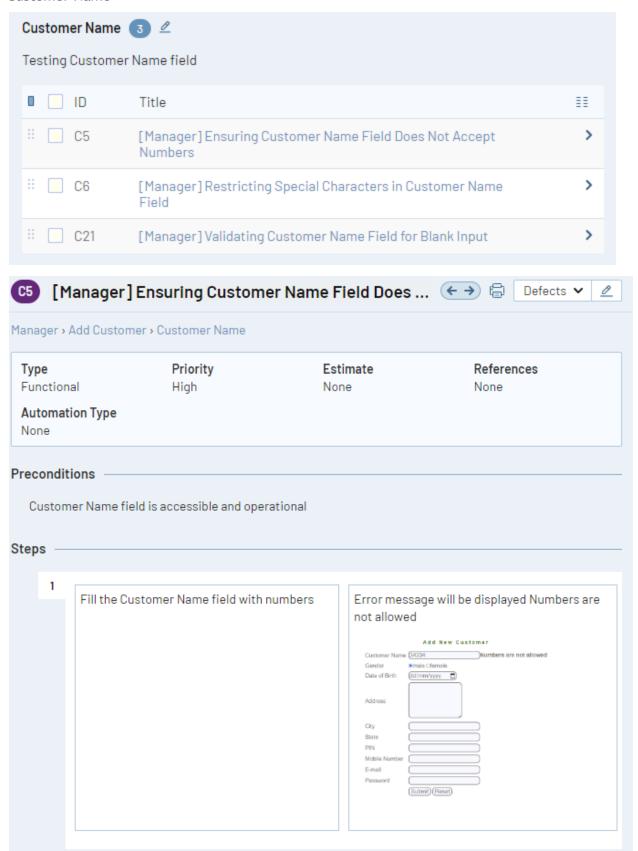
Login & Logout

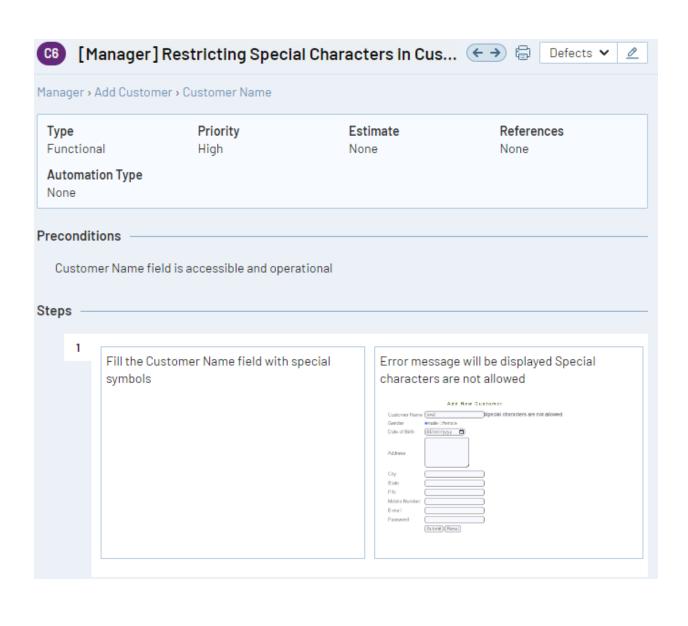


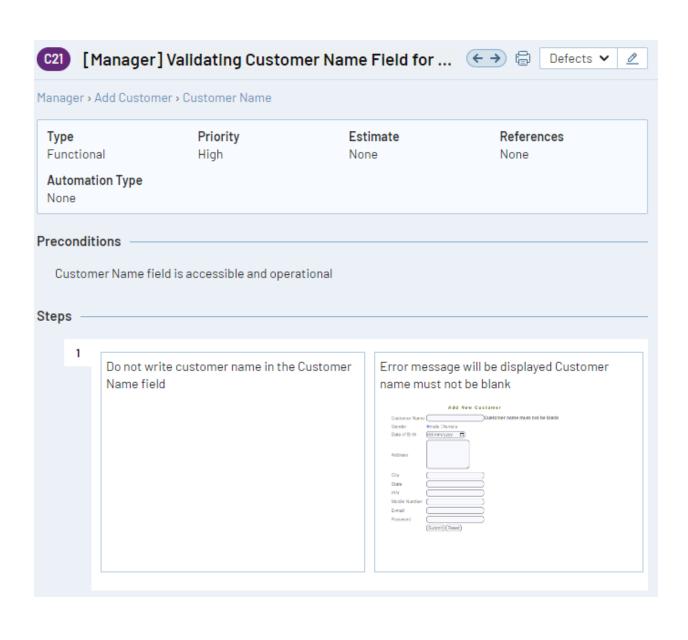
New Customer



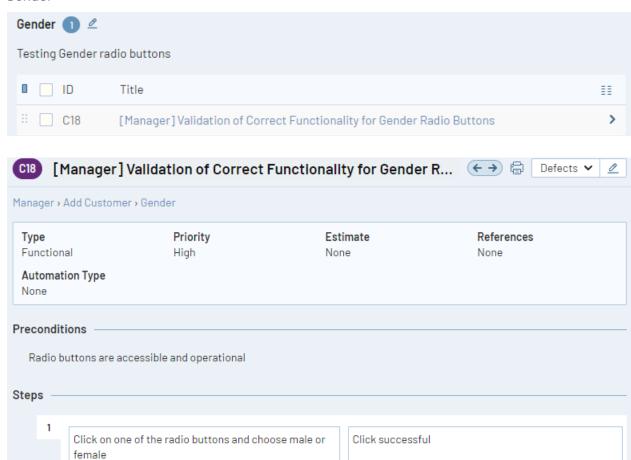
Customer Name



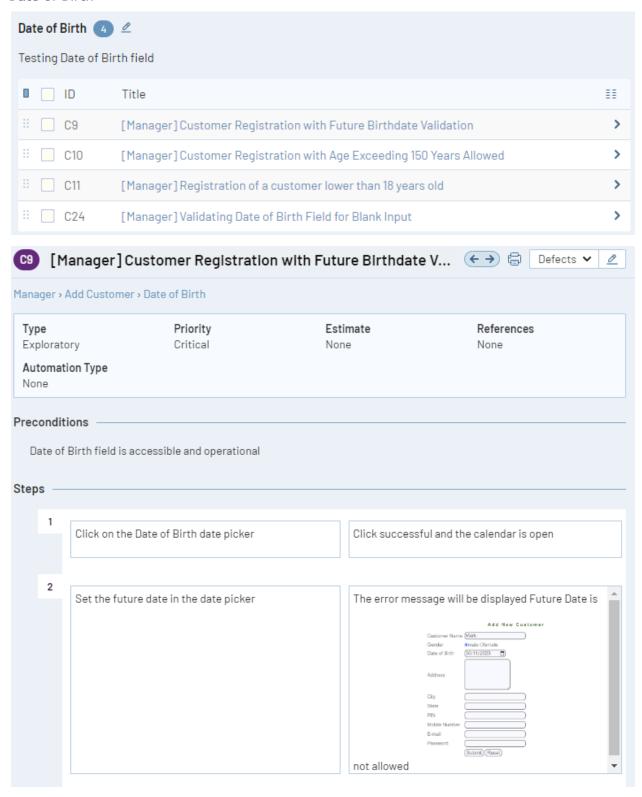


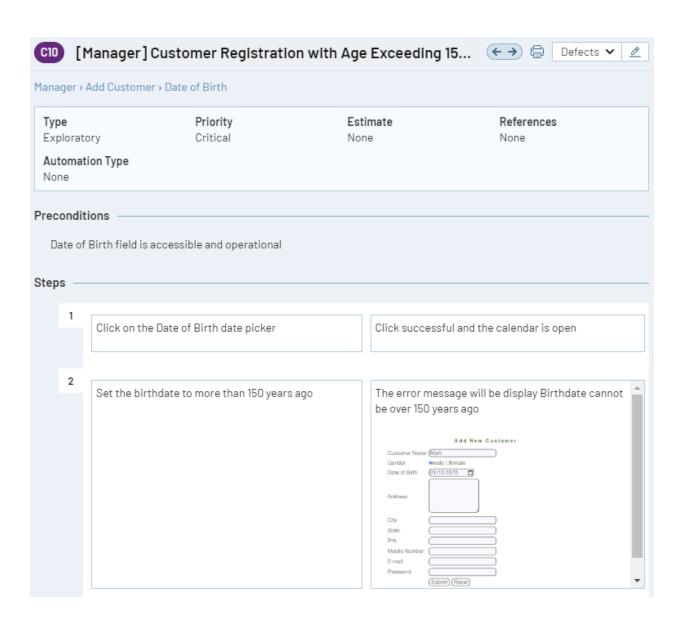


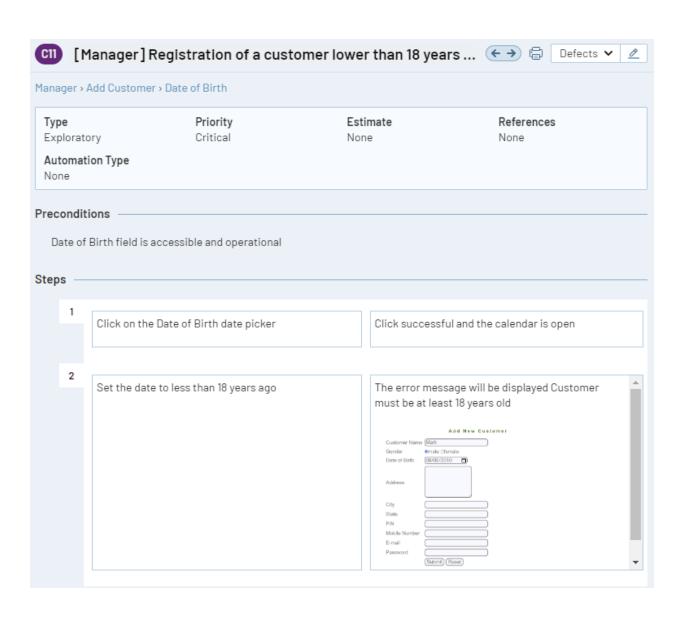
Gender

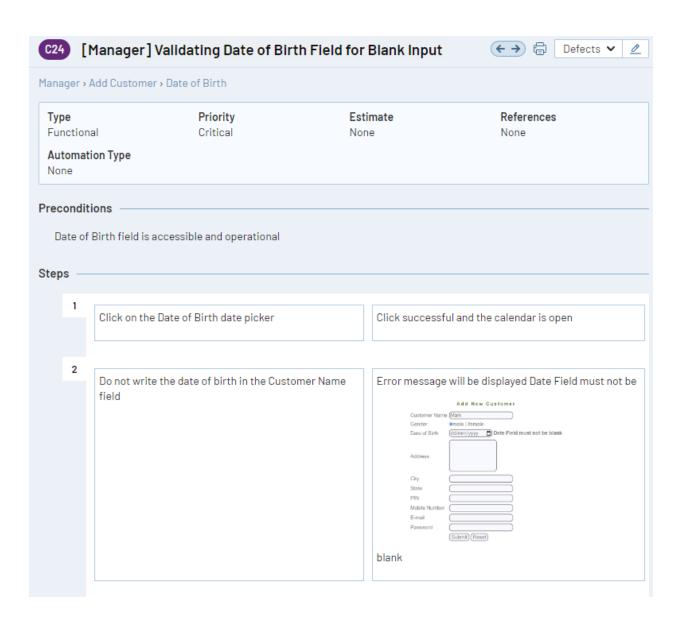


Date of Birth

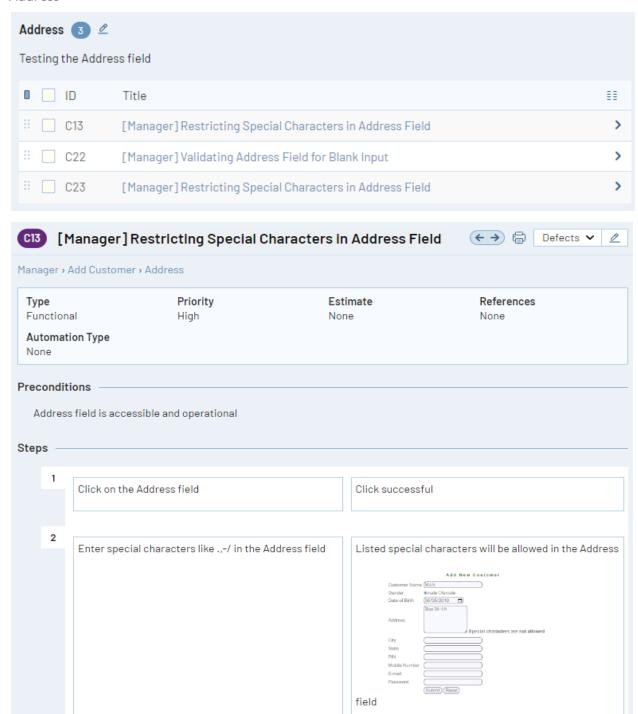


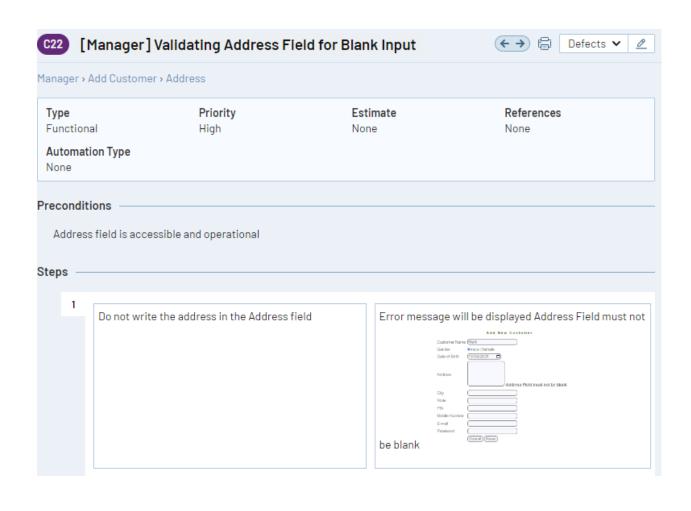


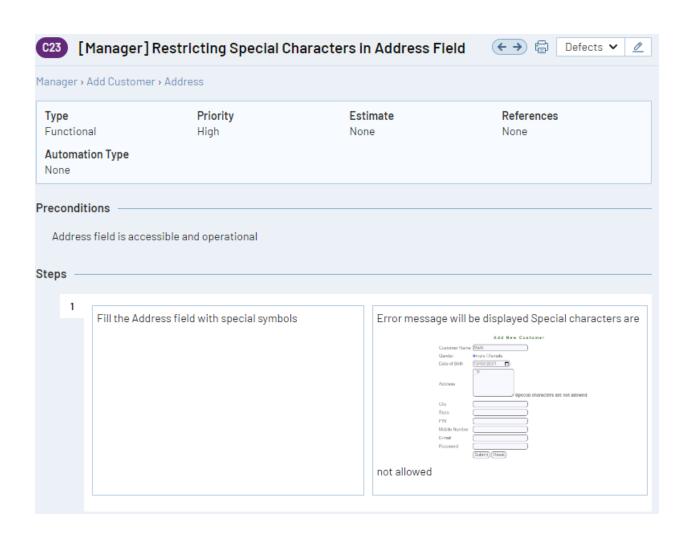




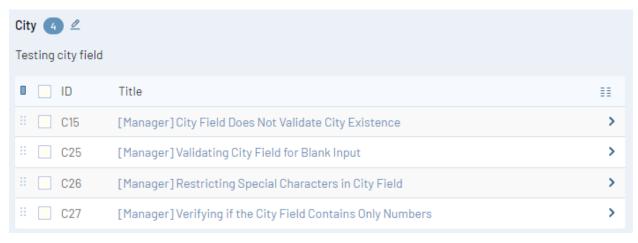
Address

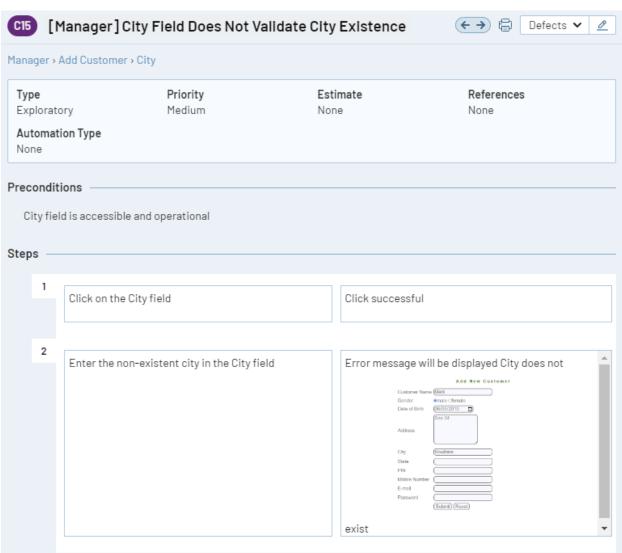


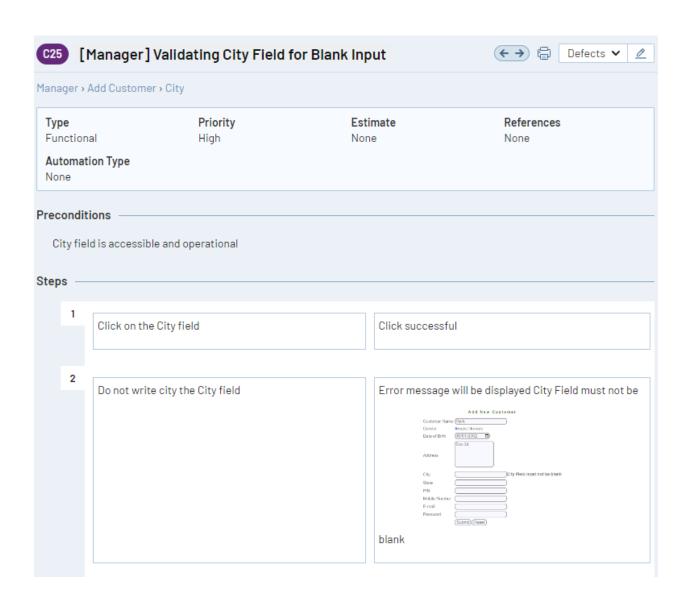


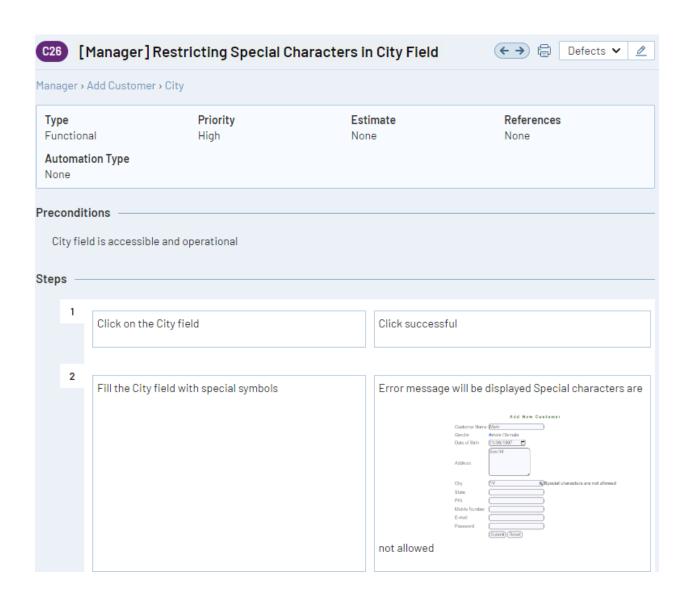


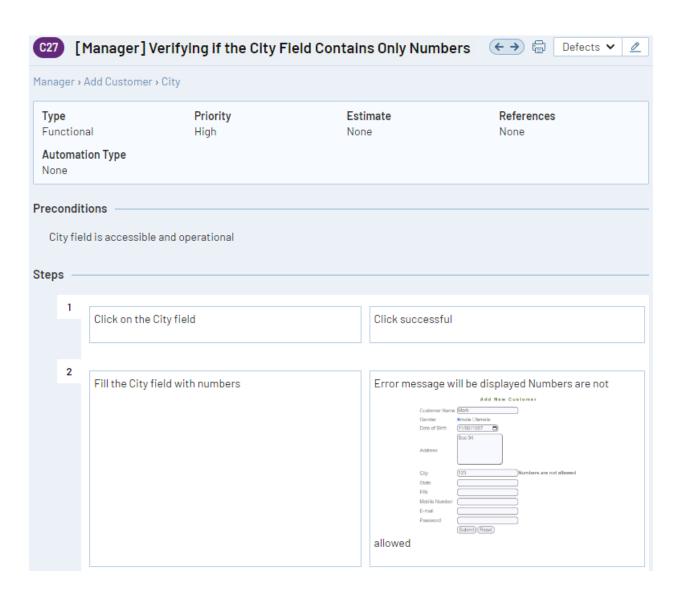
City



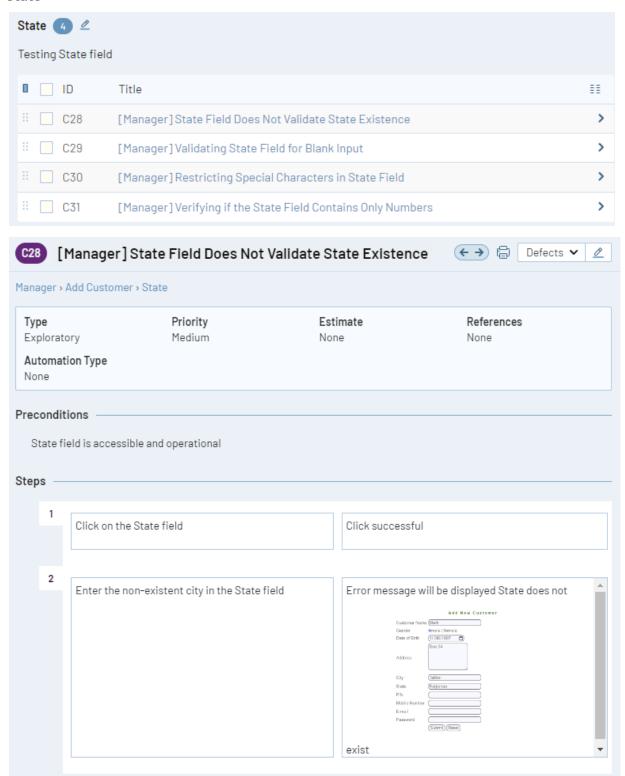


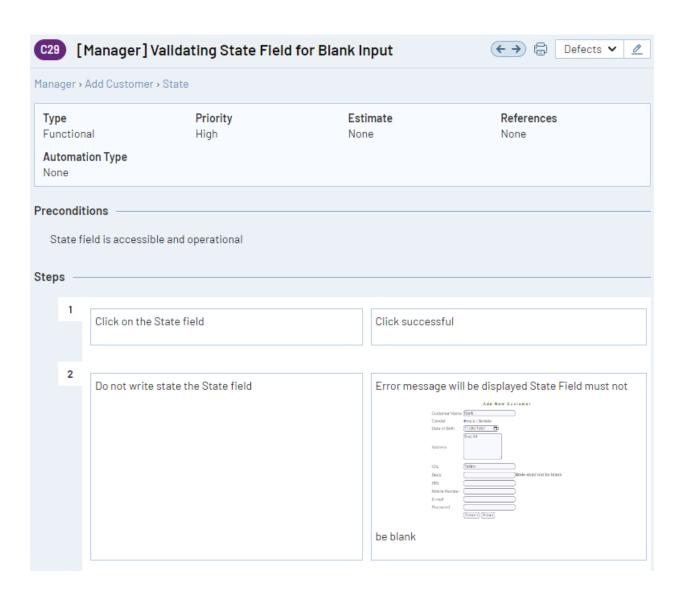


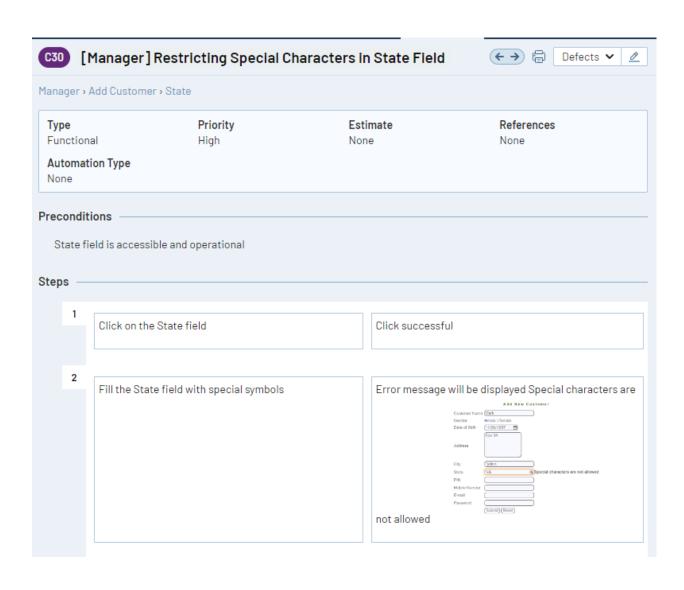


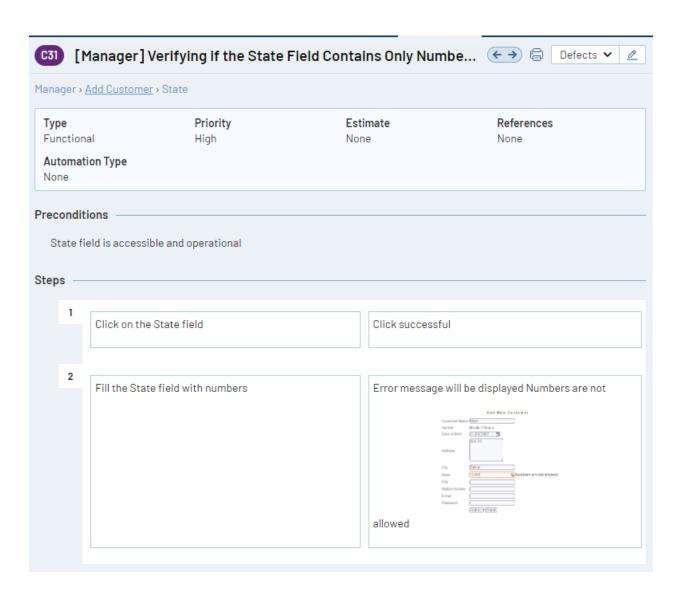


State

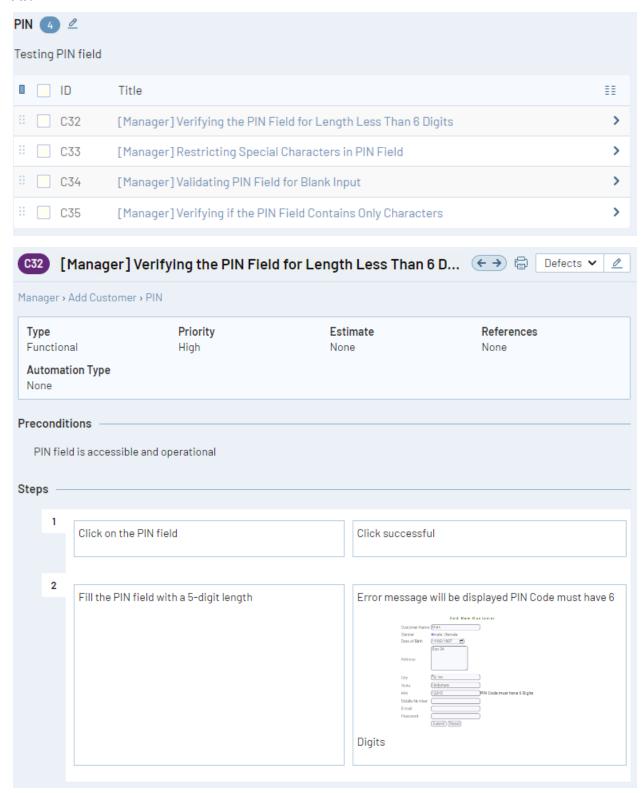


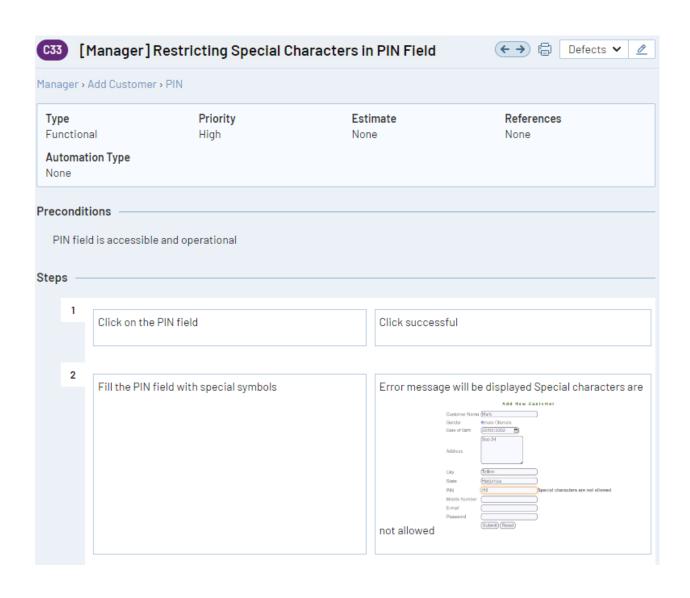


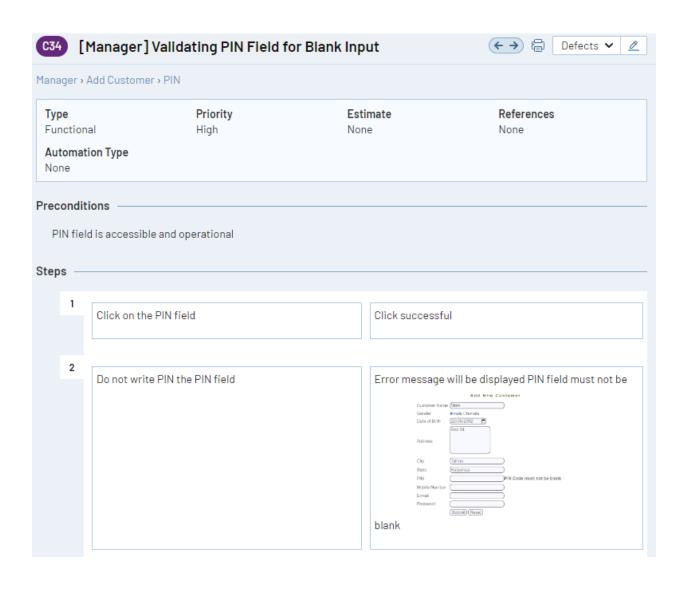


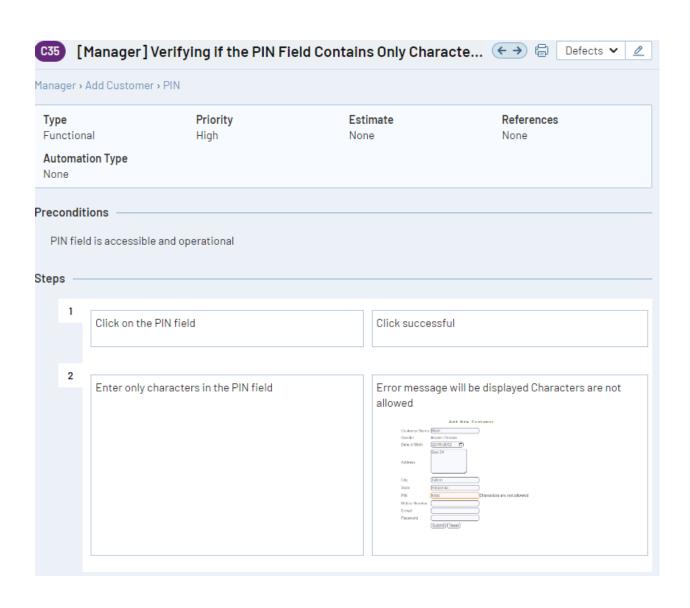


PIN

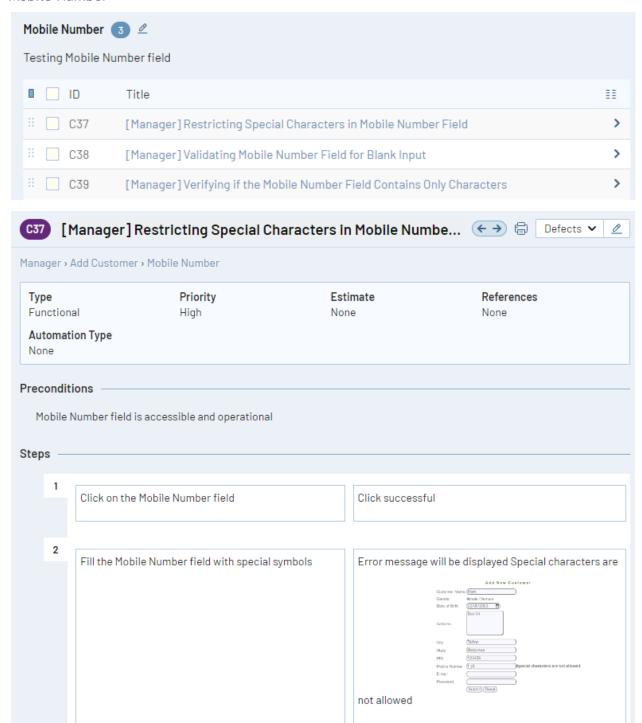


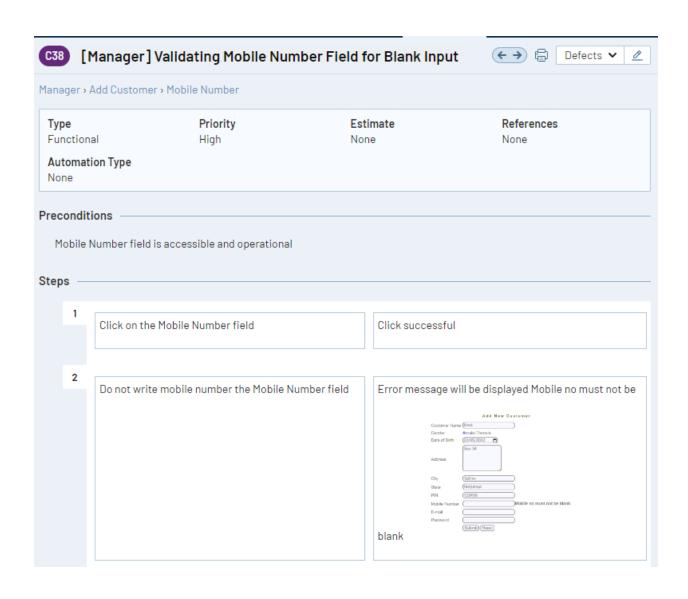


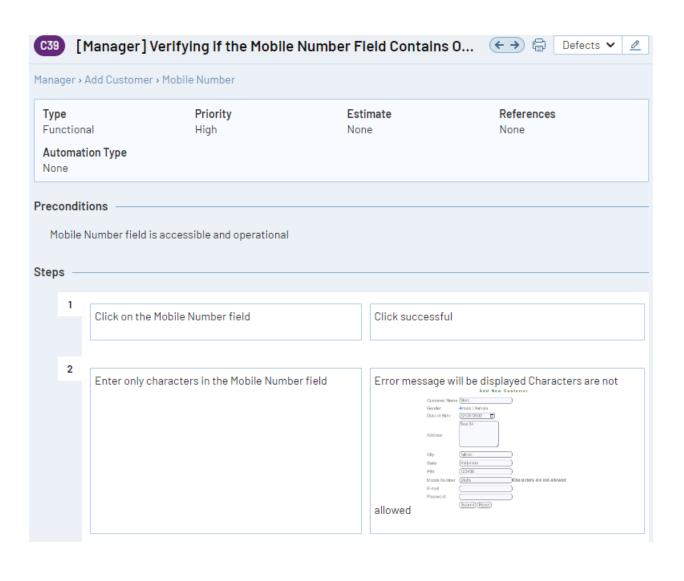




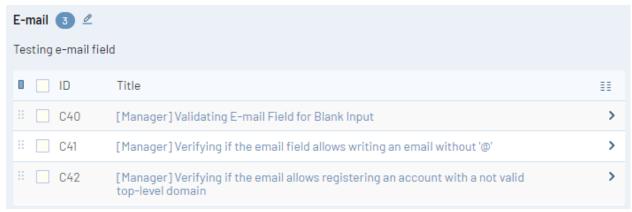
Mobile Number

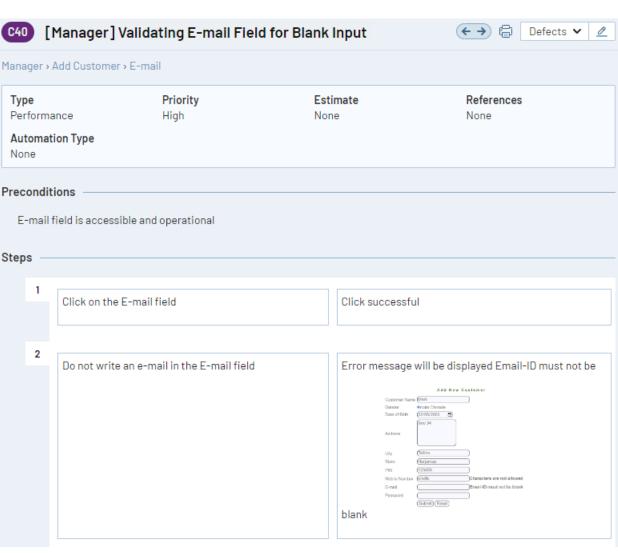


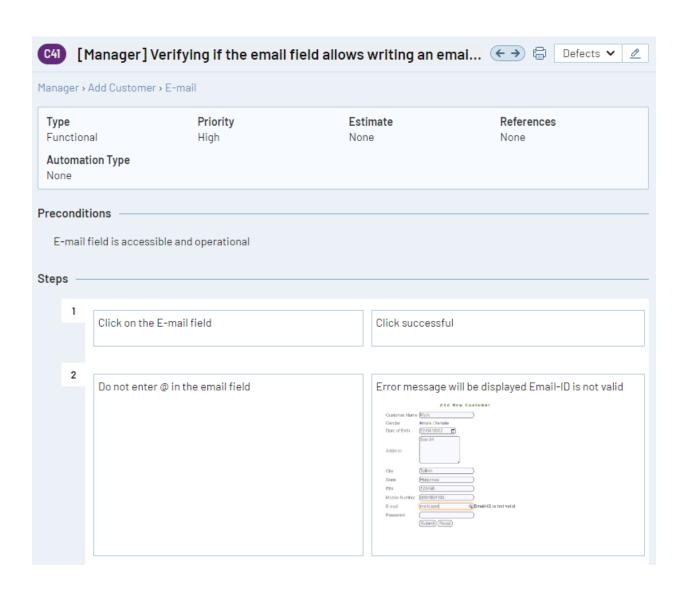


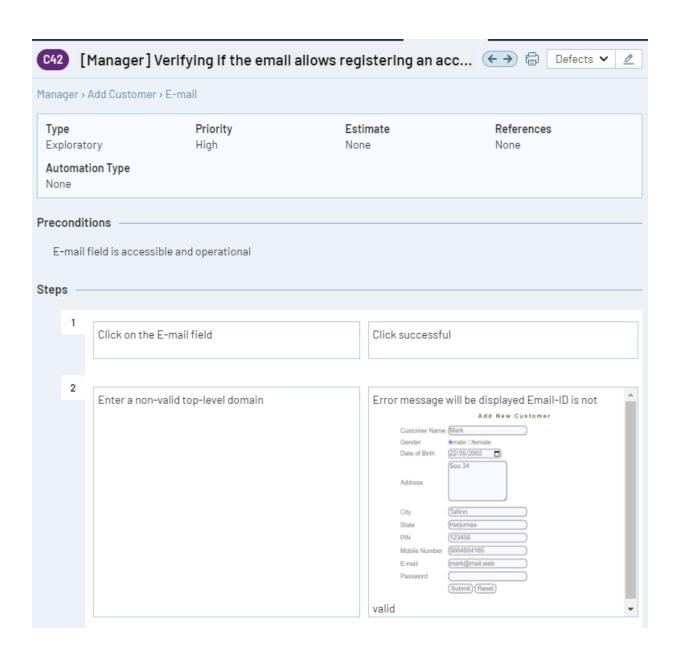


E-mail

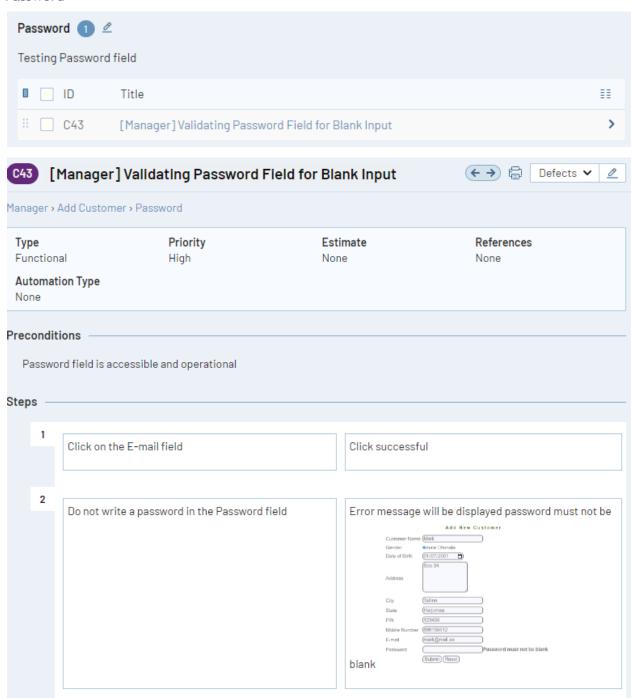






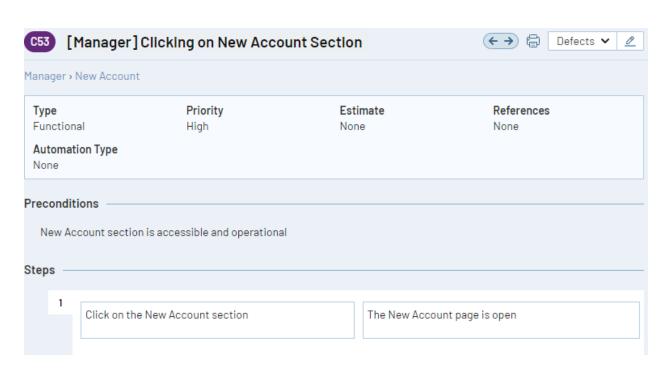


Password

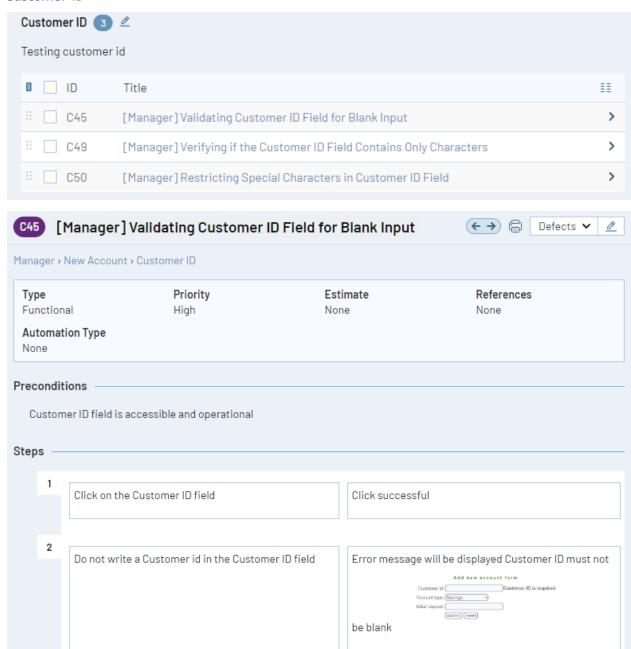


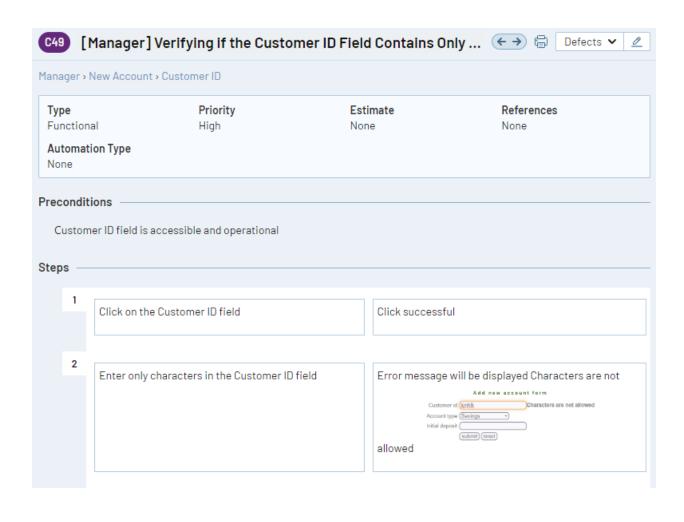
New Account

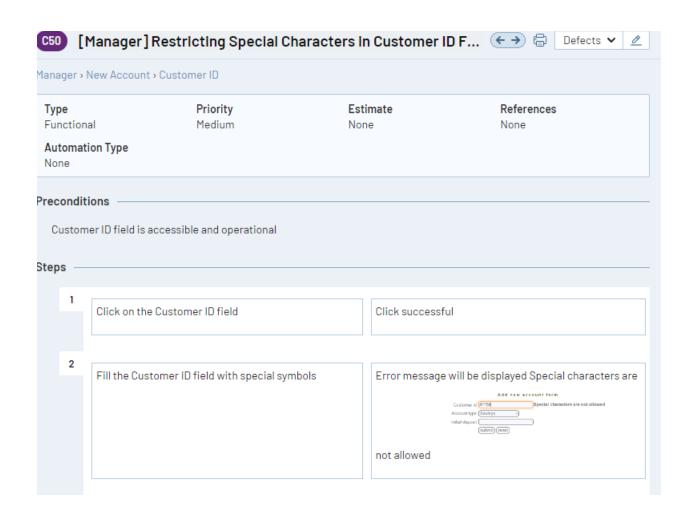




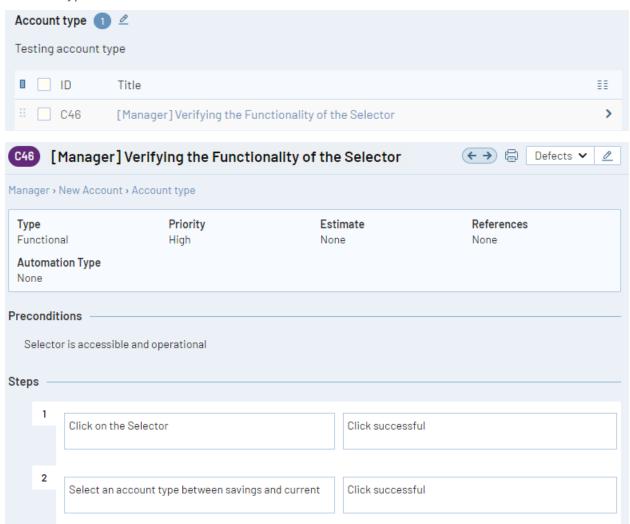
Customer ID



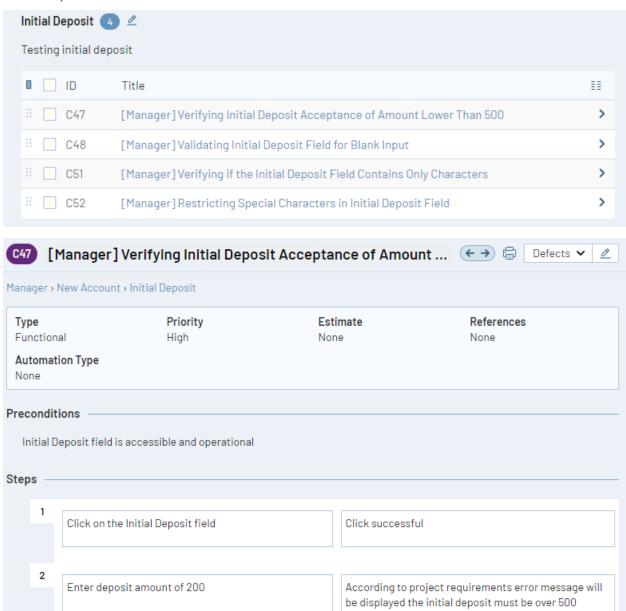


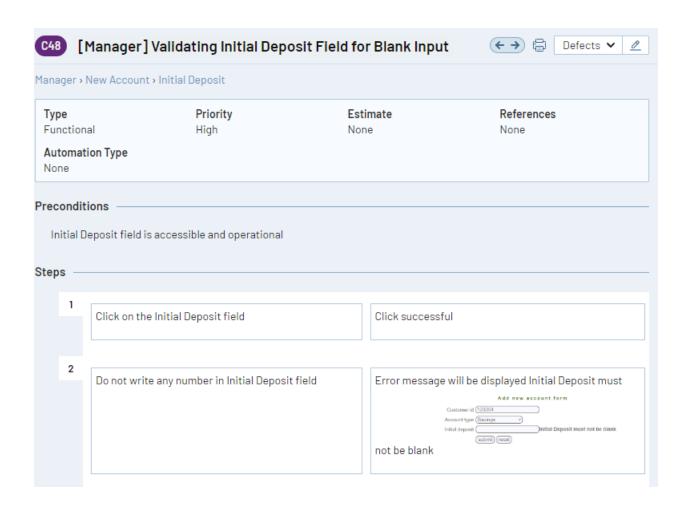


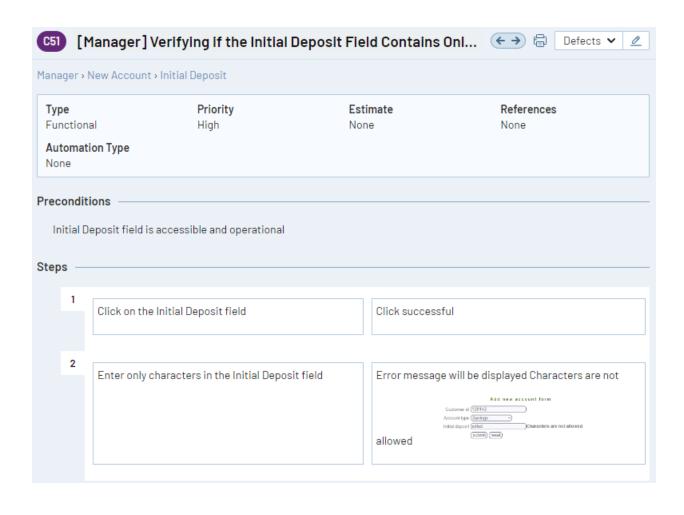
Account Type

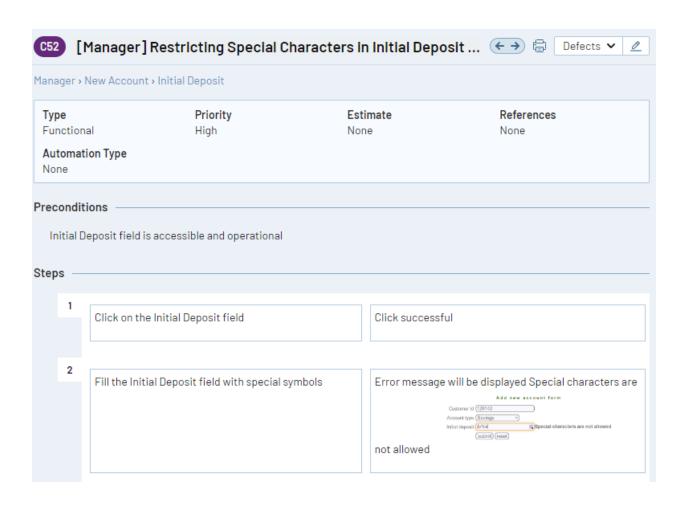


Initial deposit



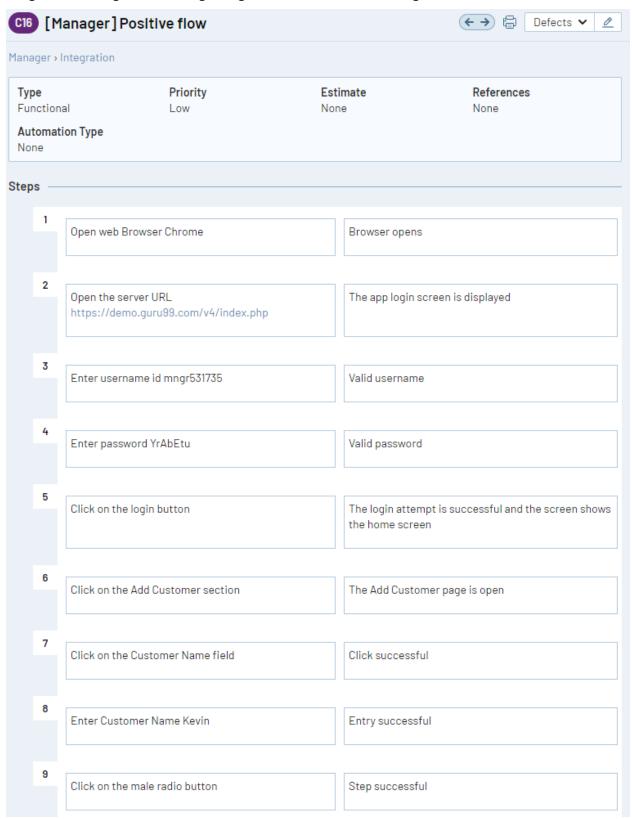






Integration

Integration testing from the beginning to the end from the manager's side



10		
	Click on the Date of Birth field	Click succesful
11	Enter a date 22.01.1999	Entry successful
12	Click on the Address field	Click successful
13	Enter address Soo 34	Entry successful
14	Click on the City field	Click successful
15	Enter city Tallinn	Entry successful
16	Click on the State field	Click successful
17	Enter state Harjumaa	Entry state
18	Click on the PIN field	Click successful
19	Enter PIN 234235	Entry successful
20	Click on the Mobile Number field	Click successful
21		
21	Enter a mobile no 561135658923	Entry successful
22	Click on the E-mail field	Click successful

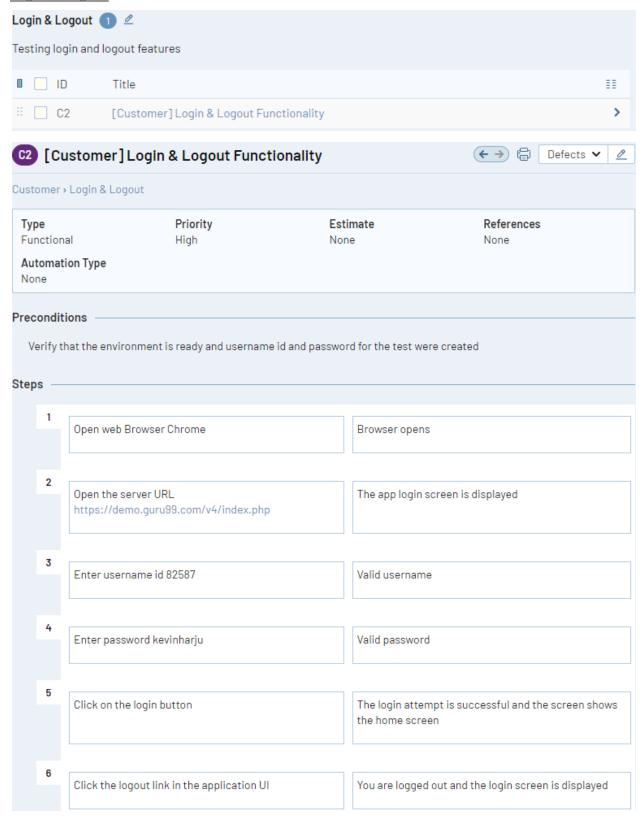
23	Provide an email kevin5000@gmail.com	Step successful
24	Click on the password field	Click successful
25	Enter password kevinharju	Entry successful
26	Click on the submit button	Click successful
27	After customer registration, you will be automatically redirected to the customer details page	Step successful Customer Registered Successfully!!! Registered Customer details are as follows: Customer ID 82587 Customer Name Kevin Gender male Birthdate 1989-01-22 Address Soo 34 City Tailinn State Harjumaa Pin 234235 Mobile No. 561136656823 Email kevin5000@gmail.com cestrace
28	Click on the Continue button	You will be automatically redirected to the home page
29	Click on the New Account section	Click successful
30	Click on the Customer ID field	Click successful
31	Enter Customer ID 82587	Entry successful
32	Click on the Account Type selector and choose the current account type	Step successful
33	Click on the Initial Deposit Field	Click successful

Enter the Initial Deposit amount of 1000	Entry Succesful
Click on the submit button	Click successful
After creating a new account, you will be automatically redirected to the created account details page	Step successful Account Generated Successfully!!! Created Account details are as follows: Account ID 128198 Customer ID 82597 Customer Name Kovin Email Kevin5000@gmail.com Account Type Current Date of Opening 2023-10-08 Current Amount 1000 Covides
Click on continue	Click successful
Click on the Logout section	Click successful
After creating a new account, you will be automatically redirected to the website start page	Step successful

Customer

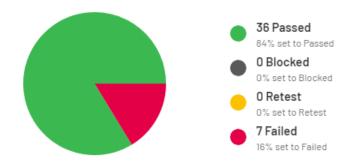
Testing the features associated with the customer's role

Login & Logout



Test runs

In total, 43 test cases were created, out of which 35 passed, and 7 failed, representing 84% and 16%, respectively.



Title	Assigned To	Status
+ [Manager] Restricting Special Characters in Address Field		Passed
+ [Manager]Positive flow		Passed
+ [Customer] Login & Logout Functionality		Passed
+ [Manager] Login and Logout Functionality		Passed
+ [Manager] Ensuring Customer Name Field Does Not Accept Numbers		Passed
+ [Manager] Restricting Special Characters in Customer Name Field		Passed
+ [Manager] Validation of Correct Functionality for Gender Radio Buttons		Passed
+ [Manager] Clicking on Add Customer Section		Passed
+ [Manager] Validating Customer Name Field for Blank Input		Passed
+ [Manager] Validating Address Field for Blank Input		Passed
+ [Manager] Restricting Special Characters in Address Field		Passed
+ [Manager] Validating Date of Birth Field for Blank Input		Passed
+ [Manager] Validating City Field for Blank Input		Passed
+ [Manager] Restricting Special Characters in City Field		Passed
+ [Manager] Verifying if the City Field Contains Only Numbers		Passed

Title	Assigned To	Status
+ [Manager] Restricting Special Characters in State Field		Passed
+ [Manager] Verifying if the State Field Contains Only Numbers		Passed
+ [Manager] Verifying the PIN Field for Length Less Than 6 Digits		Passed
+ [Manager] Restricting Special Characters in PIN Field		Passed
+ [Manager] Validating PIN Field for Blank Input		Passed
+ [Manager] Verifying if the PIN Field Contains Only Characters		Passed
+ [Manager] Restricting Special Characters in Mobile Number Field		Passed
+ [Manager] Validating Mobile Number Field for Blank Input		Passed
+ [Manager] Verifying if the Mobile Number Field Contains Only Characters		Passed
+ [Manager] Validating E-mail Field for Blank Input		Passed
+ [Manager] Verifying if the email field allows writing an email without '@'		Passed
+ [Manager] Validating Password Field for Blank Input		Passed
+ [Manager] Validating Customer ID Field for Blank Input		Passed
+ [Manager] Verifying the Functionality of the Selector		Passed
+ [Manager] Validating Initial Deposit Field for Blank Input		Passed

Title	Assigned To	Status
+ [Manager] Verifying if the Customer ID Field Contains Only Characters		Passed
+ [Manager] Restricting Special Characters in Customer ID Field		Passed
+ [Manager] Verifying if the Initial Deposit Field Contains Only Characters		Passed
+ [Manager] Restricting Special Characters in Initial Deposit Field		Passed
+ [Manager] Clicking on New Account Section		Passed

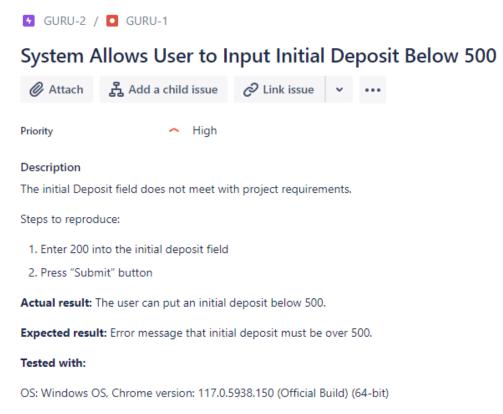
Title	Assigned To	Status
+ [Manager] Customer Registration with Future Birthdate Validation		Failed
+ [Manager] Customer Registration with Age Exceeding 150 Years Allowed		Failed
+ [Manager] Registration of a customer lower than 18 years old		Failed
+ [Manager] City Field Does Not Validate City Existence		Failed
+ [Manager] State Field Does Not Validate State Existence		Failed
+ [Manager] Verifying if the email allows registering an account with a not va	l	Failed
+ [Manager] Verifying Initial Deposit Acceptance of Amount Lower Than 500		Failed

FOUNDED BUGS

Most of the tests that were run were functional, and no bugs were found, i.e., the software's behavior aligned with the project requirements, except for one bug.

Functional bugs

According to the project documentation, the system must display an error if the initial deposit is less than 500, but it didn't.

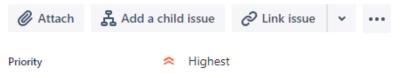


Exploratory bugs

Since the project requirements did not specify details about the date of birth, city, state, or email features, and no acceptance criteria were provided, I conducted exploratory testing and discovered several bugs.



User can register a customer account with a future date of birth



Description

The date of Birth field does not validate future birthdates.

Steps to reproduce:

- 1. Set the future date in the date picker
- 2. Press enter

Actual result: User can register an account.

Expected result: Error message that future date of birth is not allowed.

Tested with:





User can register a customer account with an age exceeding 150 years



Description

The date of Birth field allows registration of a customer with an age exceeding 150 years.

Steps to reproduce:

- 1. Set the birthdate to more than 150 years ago
- 2. Press enter

Actual result: User can register an account.

Expected result: Error message that birthdate cannot be over 150 years ago

Tested with:

	Add New	Customer
Customer Name	Mark	
Gender	●male Ofemale	
Date of Birth	(01/10/1875	
Address		
City		
State		
PIN		
Mobile Number		
E-mail		
Password		
	(Submit) (Reset)	



User can register a customer that is lower than 18 years old



Description

Registration of a customer lower than 18 years old

The date of Birth field does not control the customer's age.

Steps to reproduce:

- 1. Set the date to less than 18 years ago
- 2. Press enter

Actual result: User can register an account.

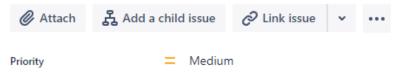
Expected result: Error message that customer must be over 18 years old.

Tested with:





User can register a customer account with a non-existing city



Description

City Field Does Not Validate City Existence.

Steps to reproduce:

- 1. Enter the non-existent city in the City field
- 2. Press enter

Actual result: User can register an account.

Expected result: Error message that city does not exist.

Tested with:





User can register a customer account with a non-existing state



Description

State Field Does Not Validate City Existence.

Steps to reproduce:

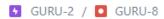
- 1. Enter the non-existent state in the State field
- 2. Press enter

Actual result: User can register an account.

Expected result: Error message that state does not exist.

Tested with:





User can register a customer account with a not valid top-level domain.



Description

The email field allows registering an account with a not valid top-level domain.

Steps to reproduce:

- 1. Enter a non-valid top-level domain (.web)
- 2. Press enter

Actual result: User can register an account.

Expected result: Error message that Email-ID is not valid.

Tested with:

OS: Windows OS, Chrome version: 117.0.5938.150 (Official Build) (64-bit)

Add New Customer Customer Name (Mark ●male ○female Date of Birth 22/05/2002 Soo 34 Address (Tallinn City Harjumaa State (123456 5664654165 Mobile Number mark@mail.web E-mail Password (Submit) (Reset)

IMPROVEMENTS

While testing the 'Add Customer' and 'New Account' features, I identified several areas for potential improvement in the future.

Firstly, considering that Guru99 Bank provides banking services, it is essential that the 'Deposit' feature includes an option to specify the currency. Currently, this information is not requested during the deposit process.

Additionally, in alignment with the validation for city and state existence, it is recommended to include a 'Country' field as a mandatory part of the customer information. This will help ensure accurate and comprehensive address details for bank customers.

The address field doesn't allow special characters like '.', ',', or '-'. But in some cases, these symbols are needed for precise address details. Consider allowing these symbols or adding separate fields for street numbers and flat numbers for more accurate addresses.

And of course, if we're dealing with a bank, security should be a top priority. There should be at least two password fields - one for entering the new password and another for confirming it. Additionally, there should be clear requirements such as password length and the use of special characters, uppercase letters, and so on.

TEST DESIGN TECHNIQUES

In the testing phase, I employed dynamic testing methods, including Exploratory Testing, Equivalence Partitioning, and Boundary Value Testing.

I initially conducted functional testing in accordance with the project requirements. However, since not all aspects were specified in the document, I decided to also incorporate exploratory testing, which helped me uncover defects and assess what worked and what did not. As a result, I performed integration testing at the very end. It became evident that Equivalence Partitioning and Boundary Value Testing were particularly well-suited for examining fields such as Date of Birth and PIN.

REFLECTION

I didn't encounter much difficulty when it came to brainstorming testing ideas or accessing information from the course materials. However, I did face a challenge when attempting to translate these ideas into written form. My primary concern was ensuring that the content of my final project document would be clearly understood by anyone who read it.

The final project, though challenging in parts, proved to be a valuable exercise in summarizing the knowledge I had gained throughout the course. I think that as I advance further in my testing career and gain more practical experience, my skill in expressing ideas in writing will steadily enhance, resulting in more effective and clear communication.