



**SYSTEM DESIGN DOCUMENT**

**MODERN BANK ATM KIOSK SYSTEM**

**JULY 2020**

## 1.0 Introduction

### 1.1 Purpose and Scope

The purpose and scope of this project involves the creation of an ATM Kiosk System on behalf of Modern Bank. We will produce a piece of software that will allow customers of Modern Bank to be able to login to the system check their current balance, to change their pin, view and edit banking details, view their transaction history, add a payee, transfer money between accounts/payees and display errors or invalid entries when a customer is accessing the Modern Bank ATM Kiosk System.

The main purpose is to improve Modern Bank's current ATM Kiosk System. The system that they have developed already is outdated as it does not provide much response to the end-user's current errors or invalid entries. They are looking for a more updated ATM Kiosk Style application that will display these errors and invalid entries which we are hoping to create.

The primary user of this system is to be current customers of Modern Bank. These users will already have their account credentials – such as their Account Number and Account PIN, which will serve as a username and a password to login to the system. This ATM Kiosk will not allow new customer sign-ups, as the customers must already have an account with the bank in order to access their information.

This ATM Kiosk does not have the infrastructure for cash withdrawals or deposits. It also does not allow for the user to insert their card to access the system. The purpose of the system is to allow Modern Bank users to login with their account credentials as discussed above.

The system itself will be simple and clean. There will be a timer in effect within the system, that will set off after a certain time, the user will have the choice to either continue or the session will end. After this has occurred, the user will gain additional time, but again, another timer will be in effect, and when the time on the second timer has ended, the session will timeout, and the user will have to login again, if required. This is required within the system for security purposes, as this system is dealing with a customer's confidential information, and allows for money to be transferred, it is essential to have security practices in place. This is especially important if a user forgets to log out of the system, which could leave their sensitive information exposed to another user that may use the system next.

After the customer has logged in to the system, they will be presented with the main system screen. This screen will display all of the features and options of the system. There will also be a help section available on each screen of the system – to aid the customer and give further guidance for the end user.

A customer will be able to change their current PIN. They will not be required to enter their Account Number again, as they have already accessed the system, but for security purposes, it will be required for the customer to enter and confirm their current PIN again. Once this has been confirmed and valid, the system will allow the user to create a new pin. The system will also require the end user to confirm the PIN again. Once this is confirmed, the user will be able to change the PIN successfully.

A customer has the option to check their current balance. Each option from the main menu will have a button that will allow the customer to go back to the main menu. After a customer has viewed their balance, they are able to select other options within the system.

The system will also allow the customer to view their personal details. This screen within the system will display the customer's First Name, Last Name, Date of Birth, Email Address, Phone Number, Address, City, County and Postcode. When the screen is loaded, all of this information will be read only, so that the customer is able to view their details. If they wish to update or change their information, they will have the option to select a button to edit their details. When they have finished updating their information they are able to save their changes. This screen will also feature a checkbox that will allow the user to view their banking details – their Account Number, Balance and PIN – when the box is checked. This information is not able to be edited, and it is only viewable when the checkbox is checked, to ensure that the user can close it if required, for security purposes, so that their sensitive information is not left on screen.

The next option on the main screen will be to add a payee. The system will allow the customer to input the Account Information of another account that they would like to transfer funds to in the future. This information will be stored in a database, which will then be accessible as a choice of an account to transfer to in the transfer screen.

The transfer screen will ask the customer to select an account to transfer from - this is their own account, but they may have multiple accounts, but in most cases it will likely be the single account. The page loads with their current account number and balance on the page so that the customer is aware of the account that they are transferring funds from, and the amount of funds they have available. They can then select a payee – either to a different account of theirs that is not selected (if applicable) or a payee that they have added, which would have been added in the Add a Payee section of the Kiosk. They can then use the on-screen keyboard to select how much they would like to transfer. They will not be able to transfer more cash than they have available in their account balance.

The final option on main the screen will include the customer's transaction history. This will display the history of any transactions from the customer. This information will include Debit (Out), Credit (In), Date of Transaction, and a description of the transaction.

The main screen will load with a welcome message with the first name of the customer that has logged in. Each page will also feature a close button so that the customer is able to exit the program if required. There will also be an exit button on the main screen that will exit the program.

The system will be created using C# Language while the database for this project will be created using SQLite and the system used to manage this database will be DB Browser.

## 1.2 Assumptions

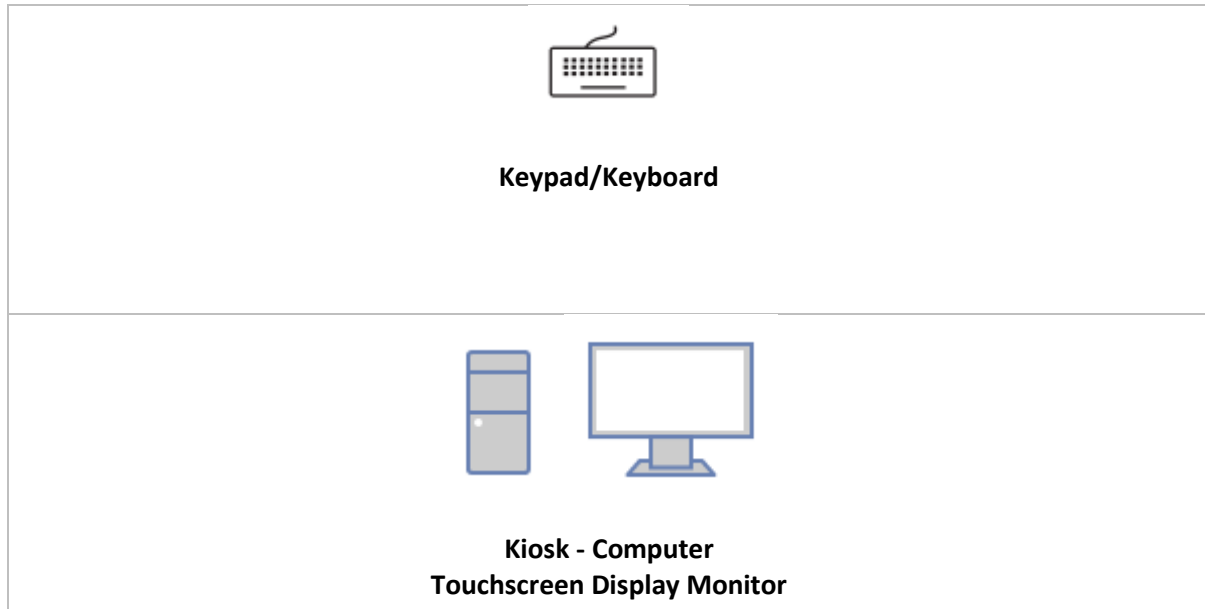
There are a number of assumptions made within this project. For example, the main assumption is that customer already has an account – an Account Number and a PIN – made previously to their use of this system. This system does not allow the customer to create a new account. Another assumption is that the customer would have their account number and pin on hand, as they are unable to access the system without it.

Another assumption is that the system that this program is going to be run on is using the Windows Operating System – Windows 7 and above. This is required as the application runs C# and the .NET Framework.

## 2.0 System Architecture

### 2.1 System Hardware Requirements

The Minimum Hardware Requirements to run the *Modern Bank ATM Kiosk* includes:



1. **Keyboard** – A keyboard is required for this system. The program features an onscreen keyboard for the login and numeric inputs, however, for the input of text, a physical keyboard will be required.
2. **Computer** – A computer is required in order to run this system. Not only is it required to meet the hardware requirements, but also the software requirements. We will speak further about the *minimum system requirements* in the subsequent section to gain further insight.
3. **Display Monitor** – In order for the user to use the application, it is necessary to have a display monitor connected to the computer. Without the display monitor, the user cannot use the application as they cannot see or run the system and it's graphical user interface. It is important to note that this display monitor must be touchscreen in order to allow the customer to use the system as intended – as input is required with the use of an onscreen keyboard.

## 2.2 System Software Requirements

This program will be created using the C# Programming Language. The application will be developed using Microsoft Visual Studio Community. The application will be using .NET framework to develop the system. This booking system will feature the use SQLite for its database, and this will be run using the DB Browser application. The **Modern Bank ATM Kiosk System** can only be run on PC's using Windows. It is not available on Mac, mobile phones or tablets. As the system will be developed using Windows 7, the minimum requirements in order to run this system can be seen below.

The Minimum Software Requirements to run the **Modern Bank ATM Kiosk System** includes:

1. .NET Framework
2. Windows 7 Operating System or Later
3. 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor\*
4. 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
5. 16 GB available hard disk space (32-bit) or 20 GB (64-bit)
6. DirectX 9 graphics device with WDDM 1.0 or higher driver


This is the ideal system specifications that are required to run this program correctly.

If your system fails to meet the system requirements, there may be performance issues, or the program may be incompatible.

## 4.1 System Creation Tools

Programming Language	C#
Framework	.NET Framework
Software Tools	<ol style="list-style-type: none"><li>1. <b>Visual Studio Community</b> – used for the creation of the Booking System program and the Graphical User Interface</li><li>2. <b>DB Browser</b> – used to populate and view database tables. Management of the database used in the system</li></ol>
Database	<b>SQLite</b> – Entry Level Free database software
Packages Used	<b>NuGet</b> – SQLite Packages and Entity Framework installed on Visual Studio required to connect Database to the System

## TEST LOG DOCUMENT

Project Name	Modern Bank ATM Kiosk System	
Module Name	Minimum Viable Product	
Sub-Module Name	Login	
Created By	Iram	
Date of Creation	01-07-2020	
Tested By	Iram	
Date of Testing	01-07-2020	

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-LOGIN-001	User to login to access the ATM System	Enter <b>valid Account Number</b> and <b>valid Account PIN</b> .	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p>	1. Touch Screen/Press Any Key		The user should be logged in successfully.	The user is now able to access the main menu and access the various forms of the ATM system.	The user is logged in successfully.	Pass
				2. Enter Account Number	<b>12345678</b>				
				3. Enter Account PIN	<b>1234</b>				
				4. Click "Login" Button					
TC-LOGIN-002	User to login to access the ATM System	Enter <b>invalid Account Number</b> and <b>invalid Account PIN</b> .	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p>	1. Touch Screen/Press Any Key		A message will appear on the screen to let the user know that they have entered invalid	<p>The user can try to login again.</p> <p>Both of the textboxes will be</p>	A message appears on the screen to let the user know that they have entered invalid	Pass
				2. Enter Account Number	<b>&lt;Invalid No&gt;</b>				
				3. Enter Account PIN	<b>&lt;Invalid PIN&gt;</b>				
				4. Click "Login" Button					

## TEST LOG DOCUMENT

			User needs to press any key/touch the screen prior to being able to input their login information.			credentials and will not be able to login and access the system.	cleared for additional input.	credentials and will not be able to login and access the system.	
TC-LOGIN-003	User to login to access the ATM System	Leave both fields <b>empty</b> .	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p>	1. Touch Screen/Press Any Key		A message will appear on the screen to let the user know that they cannot leave any fields blank and that they must enter valid credentials in order to proceed.	The user will be able to input their credentials.	A message appears on the screen to let the user know that they cannot leave any fields blank and that they must enter valid credentials in order to proceed.	Pass
				2. Enter Account Number	<Empty>				
				3. Enter Account PIN	<Empty>				
				4. Click "Login" Button					
TC-LOGIN-004	User to login to access the ATM System	<p>Enter <b>valid Account Number</b> and <b>valid Account PIN</b>.</p> <p>Try to enter a PIN that is <b>more than 4 characters</b></p>	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p>	1. Touch Screen/Press Any Key		A message will appear on the screen to let the user know that they are unable to enter more than 4 digits for the PIN. They cannot exceed 4 digits.	<p>The user can try to login again.</p> <p>The fields will not be cleared, as the correct credentials could have been entered.</p> <p>The user can try to login or click the "clear" button to try again.</p> <p>They can also clear contents of the textboxes by hovering over the</p>	A message appears on the screen to let the user know that they are unable to enter more than 4 digits for the PIN. <p>They cannot exceed 4 digits.</p>	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	12345				
				4. Click "Login" Button					

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							Account Number textbox.		
TC-LOGIN-005	User can access help system on Login	Click help button.	The user must touch the screen or press any key to enter the program.	1. Touch Screen/Press Any Key		A form will load with a webpage that will present help to the user.	User can access information and help.	A form loads with a webpage that will present help to the user.	Pass
				2. Click the “?” Button					



## TEST LOG DOCUMENT

Project Name	Modern Bank ATM Kiosk System	
Module Name	Minimum Viable Product	
Sub-Module Name	Change Pin	
Created By	Iram	
Date of Creation	01-07-2020	
Tested By	Iram	
Date of Testing	01-07-2020	


Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-CHANGEPIN-001	User enters current PIN, new PIN and confirms new PIN to change the current PIN.	Enter <b>Current PIN</b> that matches the account number that is logged in. Enter a <b>new PIN</b> , Enter and <b>confirm new PIN</b> , ensuring that they are identical.	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p> <p>User will have to select "Change Pin" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		The PIN should be changed successfully.	<p>The user can click "ok" to the message on screen.</p> <p>A tick' will appear beside the textbox after the verification is a success.</p> <p>The user will be redirected back to the main menu.</p>	<p>The PIN is changed successfully.</p> <p>A message appear on screen to let the user that their PIN has been updated.</p>	Pass
				2. Enter Account Number	12345678	A message will appear on screen to let the user that their PIN has been updated.			
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Change Pin" from the Main Menu of options.					
				6. Enter current PIN	1234				
				7. Click "Verify" Button					
				8. Enter new PIN	1111				
				9. Enter new PIN confirmation	1111				
				10. Click "Change PIN"					

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-CHANGEPIN-002	User enters current PIN, new PIN and confirms new PIN to change the current PIN.	Enter <b>invalid Current PIN</b> that will not match the account number that is logged in. Enter a <b>new PIN</b> , Enter and <b>confirm new PIN</b> , ensuring that they are identical.	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p> <p>User will have to select "Change Pin" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		<p>The PIN will not be changed.</p> <p>A message will appear on screen to let the user that their PIN is incorrect.</p> <p>The user will be redirected back to the main menu.</p>	<p>The user can click "ok" to the message on screen.</p> <p>A 'x' will appear beside the textbox after the verification fails.</p>	<p>The PIN will not be changed.</p> <p>A message appears on screen to let the user that their PIN is incorrect.</p>	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Change Pin" from the Main Menu of options.					
				6. Enter current PIN	1235				
				7. Click "Verify" Button					
TC-CHANGEPIN-003	User enters current PIN, new PIN and confirms new PIN to change the current PIN.	Enter <b>Current PIN</b> that matches the account number that is logged in. Enter a <b>new PIN</b> , Enter and <b>confirm new PIN</b> , ensuring that it does not match new PIN.	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p> <p>User will have to select "Change Pin" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		<p>The PIN will not be changed.</p> <p>An 'x' will be present beside the textbox until the pin confirmation matches the first new PIN.</p>	<p>Nothing changes.</p> <p>The user will be able to clear the contents of the new Pin and the confirmation textboxes to re-enter new PIN that matches.</p>	<p>The PIN is not changed.</p> <p>A 'x' is be present beside the textbox until the pin confirmation matches the first new PIN</p>	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Change Pin" from the Main Menu of options.					
				6. Enter current PIN	1234				
				7. Click "Verify" Button					
				8. Enter new PIN	1111				
				9. Enter new PIN confirmation	1112				
				10. Click "Change PIN"					
Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)

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TC- CHANGEPIN- 004	User can access help system on Change Pin form	Click help button.	The user must touch the screen or press any key to enter the program.	1. Touch Screen/Press Any Key		A form will load with a webpage that will present help to the user.	User can access information and help.	A form loads with a webpage that will present help to the user.	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Change Pin" from the Main Menu of options.					
				6. 2. Click the "?" Button					


## TEST LOG DOCUMENT

Project Name	Modern Bank ATM Kiosk System	
Module Name	Minimum Viable Product	
Sub-Module Name	Check Balance	
Created By	Iram	
Date of Creation	01-07-2020	
Tested By	Iram	
Date of Testing	01-07-2020	

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-BALANCE-001	User can view current account balance	Enter balance form and view account balance.	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p> <p>User will have to select "Check Balance" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		The form will load with a waiting message and a pre-loader.	The user can go back to the menu or click "?" for help.	<p>The form loads with a waiting message and a pre-loader.</p> <p>After 3 seconds, the account balance is present on the screen in a textbox.</p> <p>Account number is also present.</p>	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234	After 3 seconds, the account balance will be present on the screen in a textbox.			
				4. Click "Login" Button					
				5. Select "Check Balance" from the Main Menu of options.		Account number will also be present.			

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-BALANCE-002	User can access help system on Check Balance form	Click help button.	The user must touch the screen or press any key to enter the program.	1. Touch Screen/Press Any Key		A form will load with a webpage that will present help to the user.	User can access information and help.	A form loads with a webpage that will present help to the user.	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Check Balance" from the Main Menu of options					
				6. 2. Click the "?" Button					

## TEST LOG DOCUMENT

Project Name	Modern Bank ATM Kiosk System	
Module Name	Minimum Viable Product	
Sub-Module Name	View / Edit Personal Details	
Created By	Iram	
Date of Creation	01-07-2020	
Tested By	Iram	
Date of Testing	01-07-2020	

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-PERSONALDETAILS-001	User can view personal details	Enter Personal Details form and View Personal Details	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p> <p>User will have to select "View/Edit Personal Details" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		<p>The personal details of the user who is logged in will appear on screen. Each of these fields will be read-only, so that the user is only able to view the information and unable to make changes.</p>	The user can go back to the menu, click edit details, click the checkbox to view banking details or click "?" for help.	The personal details of the user who is logged in appears on screen. Each of these fields will be read-only, so that the user is only able to view the information and unable to make changes.	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Check Balance" from the Main Menu of options					


Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-PERSONALDETAILS-002	User is able to edit personal details (From Read-Only to Edit)	Enter Personal Details form and Click button to edit Personal Details	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p> <p>User will have to select "View/Edit Personal Details" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		<p>The textboxes and fields will change from read-only, to editable.</p> <p>The user will be able to make amendment to their details as required.</p>	The user can click the save changes button to save their changes and data.	The textboxes and fields change from read-only, to editable. The user is able to make amendment to their details as required.	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Check Balance" from the Main Menu of options					
				6. Click "Edit Details" Button					
TC-PERSONALDETAILS-003	User can save personal details changes	Edit <b>First Name</b> Edit <b>Last Name</b> Edit <b>Date of Birth</b> Edit <b>Email Address</b> Edit <b>Phone Number</b> Edit <b>Address</b> Edit <b>City</b> Edit <b>County</b> Edit <b>Postcode</b> And Save changes.	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p> <p>User will have to select "View/Edit Personal Details" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		<p>The changes made should be saved and updated.</p> <p>A message should appear on screen that let the user know that their personal details have been updated.</p>	The user can decide to make more changes, click the view banking details checkbox, return to the main menu or click the '?' button to read help.	The changes made are saved and updated. A message appears on screen that lets the user know that their personal details have been updated.	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Check Balance" from the Main Menu of options					
				6. Click "Edit Details" Button					
				7. Edit First Name	Iram				
				8. Edit Last Name	Dev				
				9. Edit Date of Birth	05 November 1995				
				10. Edit Email Address	iram@info.com				
				11. Edit Phone Number	0872658984				
				12. Edit Address	201 Dublin Road				
				13. Edit City	Dublin				
				14. Edit County	Dublin				

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				15. Edit Postcode	D02Y478				
				16. Click "Save Changes" Button					
TC-PERSONALDE TAILS-004	User clicks checkbox to view personal bank details	View Account Number, PIN and Balance after checkbox has been clicked.	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>User needs to press any key/touch the screen prior to being able to input their login information.</p> <p>They must have their Account Credentials present in order to login.</p> <p>User will have to select "View/Edit Personal Details" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		Banking details to be displayed in groupbox.	The user can click the checkbox again to hide their information.	Banking details to be displayed in groupbox.	Pass
				2. Enter Account Number	12345678				
				3. Enter Account PIN	1234				
				4. Click "Login" Button					
				5. Select "Check Balance" from the Main Menu of options					
				6. Click to fill checkbox					
						User should be able to view their account number, balance and pin on screen.		User are able to view their account number, balance and pin on screen.	



## TEST LOG DOCUMENT

Project Name	Modern Bank ATM Kiosk System	
Module Name	Minimum Viable Product	
Sub-Module Name	Transfer	
Created By	Iram	
Date of Creation	01-07-2020	
Tested By	Daniel Gerber (External Tested Module)	
Date of Testing	02-07-2020	

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TRANSFER-001	Allow the user to transfer funds of their choice from their account to a payee with a description of the transfer.	Select <b>payee</b> , Enter <b>description</b> , Enter <b>valid amount to transfer</b> .	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>They must have their Account Credentials present and must be able to login to the system successfully with a <b>valid Account Number</b> and <b>PIN</b>.</p> <p>User will have to select "Transfer" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		Funds have successfully transferred from one account to another.	Account Balance should be reduced by the amount transferred, and updated to show the new balance.	Funds have successfully transferred from one account to another.	Pass
				2. Enter Account Number	<b>12345678</b>				
				2. Enter Account PIN	<b>1234</b>				
				3. Click "Login" Button		A message should appear on screen to let the user aware that their transfer was successful.	A message should appear on screen to let the user aware that their transfer was successful.	A message should appear on screen to let the user aware that their transfer was successful.	
				4. Select "Transfer" from the Main Menu of options.					
				5. Select Payee from the list of payees.	<b>Olivia</b>		Choice to make: another transfer:		
				6. Enter Description of the transaction	<b>Loan</b>	User can choose to make another transfer or not.	<b>Yes</b> – The contents of the form will be cleared for new inputs. <b>No</b> – the user will be brought back to the main menu.	User can choose to make another transfer or not.	
				7. Enter the amount to transfer	<b>22.00</b>				
				8. Click "Transfer Funds" Button					

## TEST LOG DOCUMENT

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TRANSFER-002	<p>Allow the user to transfer funds of their choice from their account to a payee with a description of the transfer.</p> <p>Testing for special characters.</p>	<p>Select <b>payee</b>, Enter <b>description</b>, Enter <b>valid amount to transfer</b>.</p> <p>This case will check if the user can input a special character in the description textbox.</p>	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>They must have their Account Credentials present and must be able to login to the system successfully with a <b>valid Account Number</b> and <b>PIN</b>.</p> <p>User will have to select "Transfer" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		<p>The user is unable to input any special characters</p>	<p>Account Balance should be reduced by the amount transferred, and updated to show the new balance.</p> <p>A message should appear on screen to let the user aware that their transfer was successful.</p> <p>Choice to make: another transfer:</p> <p><b>Yes</b> – The contents of the form will be cleared for new inputs.</p> <p><b>No</b> – the user will be brought back to the main menu.</p>	<p><b>System.Data.SQLite.SQLiteException:</b> 'SQL logic error unrecognized token: "show me the monies')'"</p> <p>The program did not accept any special characters to be inputted which caused it to crash.</p>	Fail
				2. Enter Account Number	<b>12345678</b>				
				2. Enter Account PIN	<b>1234</b>				
				3. Click "Login" Button					
				4. Select "Transfer" from the Main Menu of options.					
				5. Select Payee from the list of payees.	<b>Olivia</b>				
				6. Enter Description of the transaction	<b>Show me the monies'</b>				

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Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TRANSFER-003	Allow the user to transfer funds of their choice from their account to a payee with a description of the transfer.	Select <b>payee</b> , Enter <b>description</b> , Enter <b>valid amount to transfer</b> .  This case will check if the user can input a special character in the description textbox.	The user will need to have an account with Modern Bank before accessing the ATM.  They must have their Account Credentials present and must be able to login to the system successfully with a <b>valid Account Number</b> and <b>PIN</b> .  User will have to select "Transfer" option from the main menu and have the page loaded.	1. Touch Screen/Press Any Key		The user is unable to input any special characters	The user can continue with the program  No error messages will appear, as no special characters will be able to be inputted	The user is unable to input any special characters	Pass
				2. Enter Account Number	<b>12345678</b>				
				2. Enter Account PIN	<b>1234</b>				
				3. Click "Login" Button					
				4. Select "Transfer" from the Main Menu of options.					
				5. Select Payee from the list of payees.	<b>Olivia</b>				
				6. Enter Description of the transaction	<b>Show me the monies'</b>				

## TEST LOG DOCUMENT

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TRANSFER-004	User to transfer funds that are <b>exceeds the balance</b> from their account to a payee with a description of the transfer.	Select <b>payee</b> , Enter <b>description</b> , Enter <b>invalid amount to transfer</b> .	The user will need to have an account with Modern Bank before accessing the ATM.  They must have their Account Credentials present and must be able to login to the system successfully with a <b>valid Account Number</b> and <b>PIN</b> .	1. Touch Screen/Press Any Key		Transfer of funds will <b>not</b> occur.	The textbox that allows the amount to be entered should be cleared.  User can enter a new amount if they wish to continue, or use the program as they please.  They will not be able to complete a transfer until the amount they want to transfer is available within their account balance.	Transfer of funds does <b>not</b> occur.  A message appears on screen to let the user aware that their transfer was unsuccessful due to insufficient funds.  Message lets the user aware that they do not €XXX/€2000 in their account to make the transaction.  User must click 'OK' on message box to continue.	Pass
				2. Enter Account Number	<b>12345678</b>	A message should appear on screen to let the user aware that their transfer was unsuccessful due to insufficient funds.			
				2. Enter Account PIN	<b>1234</b>				
				3. Click "Login" Button					
				4. Select "Transfer" from the Main Menu of options.		Message should let the user aware that they do not €XXX/€2000 in their account to make the transaction.			
				5. Select Payee from the list of payees.	<b>Sophia</b>				
				6. Enter Description of the transaction	<b>Loan</b>				
				7. Enter the amount to transfer	<b>2000.00</b>	User must click 'OK' on message box to continue.			
				8. Click "Transfer Funds" Button					


## TEST LOG DOCUMENT

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TRANSFER-005	User to transfer funds of their choice from their account to a payee with <b>no description</b> of the transfer.	Select <b>payee</b> , Leave an <b>empty description</b> , Enter <b>valid amount to transfer</b> .	The user will need to have an account with Modern Bank before accessing the ATM.  They must have their Account Credentials present and must be able to login to the system successfully with a <b>valid Account Number</b> and <b>PIN</b> .	1. Touch Screen/Press Any Key		Transfer of funds will <b>not</b> occur.	User can enter a description if they wish to continue with the transfer, or use the program as they please.  They will not be able to complete a transfer until all fields are complete as required.	Transfer of funds does <b>not</b> occur.  A message should appear on screen to let the user aware that they must enter a description to complete a transfer.  User must click 'OK' on message box to continue.	Pass
				2. Enter Account Number	<b>12345678</b>	A message should appear on screen to let the user aware that they must enter a description to complete a transfer.			
				2. Enter Account PIN	<b>1234</b>				
				3. Click "Login" Button					
				4. Select "Transfer" from the Main Menu of options.		User must click 'OK' on message box to continue.			
				5. Select Payee from the list of payees.	<b>Sean</b>				
				6. Enter Description of the transaction	<b>&lt;Empty&gt;</b>				
				7. Enter the amount to transfer	<b>22.00</b>				
				8. Click "Transfer Funds" Button					

## TEST LOG DOCUMENT


Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TRANSFER-006	User to transfer funds of their choice from their account with a description but no payee selected for the transfer.	Do not select a <b>Payee</b> . Enter a <b>Description</b> , Enter <b>valid amount to transfer</b> .	The user will need to have an account with Modern Bank before accessing the ATM.  They must have their Account Credentials present and must be able to login to the system successfully with a <b>valid Account Number</b> and <b>PIN</b> .	1. Touch Screen/Press Any Key		Transfer of funds will <b>not</b> occur.	User can select a payee if they wish to continue with the transfer, or use the program as they please.  They will not be able to complete a transfer until all fields are complete as required.	Transfer of funds does <b>not</b> occur.  A message should appear on screen to let the user aware that they must select a payee from the list to complete a transfer.  User must click 'OK' on message box to continue.	Pass
				2. Enter Account Number	12345678	A message should appear on screen to let the user aware that they must select a payee from the list to complete a transfer.  User must click 'OK' on message box to continue.			
				2. Enter Account PIN	1234				
				3. Click "Login" Button					
				4. Select "Transfer" from the Main Menu of options.					
				5. Select Payee from the list of payees.	<Not Selected>				
				6. Enter Description of the transaction	Loan				
				7. Enter the amount to transfer	22.00				
				8. Click "Transfer Funds" Button					

## TEST LOG DOCUMENT

Project Name	Modern Bank ATM Kiosk System	
Module Name	Minimum Viable Product	
Sub-Module Name	Transaction History	
Created By	Iram	
Date of Creation	01-07-2020	
Tested By	Iram	
Date of Testing	03-07-2020	

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TRANSACTION-001	Allow the user to view transaction history.	View <b>Transactions</b>	<p>The user will need to have an account with Modern Bank before accessing the ATM.</p> <p>They must have their Account Credentials present and must be able to login to the system successfully with a <b>valid Account Number</b> and <b>PIN</b>.</p> <p>User will have to select "Transaction History" option from the main menu and have the page loaded.</p>	1. Touch Screen/Press Any Key		Recent transactions from most recent should be displayed in a data grid viewer.	<p>User can select through the information available in the grid – read only.</p> <p>User can click '?' for additional help, or go back to the main menu for additional options on the ATM.</p>	Recent transactions from most recent are displayed in a data grid viewer.	Pass
				2. Enter Account Number	<b>12345678</b>				
				2. Enter Account PIN	<b>1234</b>				
				3. Click "Login" Button					
				4. Select "Transaction History" from the Main Menu of options.					


## TEST LOG DOCUMENT

Project Name	Modern Bank ATM Kiosk System	
Module Name	UI Design	
Sub-Module Name	Button, Tooltip	
Created By	Iram	
Date of Creation	01-07-2020	
Tested By	Iram	
Date of Testing	02-07-2020	

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TOOLTIP-001	Tooltip working correctly across each screen of the program	The tooltip is the correct size, length, colour and font as specified within the code	Integrated within code on each page of the system – all the same tooltip information and specifications declared on each page.	1. Touch Screen/Press Any Key	N/a	The tooltip should be displayed as follows: Purple background colour, white font colour, Montserrat font	N/a	The tooltip is displayed as follows: Purple background colour, white font colour, Montserrat font	Pass
				2. Hover over any textbox within the program					
TC-BUTTONDESIGN-001	Button design working correctly across each screen of the program	The button design is the correct size, length, colour and font as specified within the code	Integrated within a separate class for a custom button.	1. Touch Screen/Press Any Key	N/a	The button should be circular, adjustable sizes. White background, purple font. On hover – purple background, white font	N/a	The button is circular, adjustable sizes. White background, purple font. On hover – purple background, white font	Pass
				2..Button present on page					



## TEST LOG DOCUMENT

Project Name	Modern Bank ATM Kiosk System	
Module Name	UI Design	
Sub-Module Name	Timers	
Created By	Iram	
Date of Creation	01-07-2020	
Tested By	Iram	
Date of Testing	02-07-2020	

Test Case ID	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status (Pass/Fail)
TC-TIMER-001	Verifying that the Login Timer works	Testing if after a minute, the timer times out and displays a message on screen.	User must approach ATM and touch the screen/press a key to activate timer.	1. Touch Screen/Press Any Key	N/a	<p>Message should pop up after elapsed time asking user if they need more time or not.</p> <p>Yes will trigger second timer.</p> <p>No will close the program</p>	N/a	The program closes.	Pass
TC-TIMER-002	Testing Session time on the Login. Error message will pop up after elapsed time	Elapsed time should end program	User must approach ATM and touch the screen/press a key to activate timer.	1. Touch Screen/Press Any Key	N/a	The program will continue, timer will be reset and the user will be able to continue with the program	N/a	The program continues, timer is reset and the user able to continue with the program	Pass