Vx Voucher System

VizuaMatix
powered by innovation

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1.0 Introduction

The invoice establishes an obligation on the part of the purchaser to pay, creating an account receivable. Currently invoices are handled manually, and this procedure has several problems such as;

- Time consuming process
- Human errors in filling some fields
- Difficult in keeping track of issued invoices
- Need physical space area for storage

Therefore, there should be a system to create these invoices and to check history of issued invoices easily.

Tax Invoice No. SD [1]

Date: [2]

Buyer:

Name [3]

Address [4]

Attention [5]

Seller:

Name [6]

Address [7]

Partner code – **If available**

Customer VAT # [8]	Supplier VAT # [9]

Payment Reference – [10]	
Hutch PO #	[11]
Date	[12]
Cost Ref:	[13]
Completion Date	[14]

Item	Description	Amount
1		
2		
	Total (US $)	[15]
Optional	Amount Claimed (%)	[16]
	Sampath Bank TT Selling rate - **Date**	[17]
	Total	[18]
+	NBT 2.04%	[19]
+	VAT 15%	[20]
	Total (LKR)	[21]

- [22] Please draw cheques in favor of "VizuaMatix (Private) Limited"

Or

- Payments to be made by direct transfer to our designated bank account No.XXXXXX in **[Branch Name] [Bank Name]**

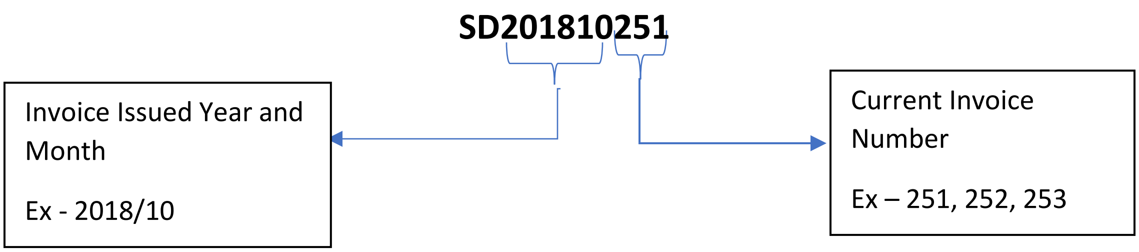
…………………………………………………….

For VizuaMatix (Private) Limited

Signature: [23]

Designation: [24]

[1] **Tax Invoice No** – This number is unique for an invoice and it is prepared according to the following sequence,



[2] **Invoice issue date** –

Format -> 02(D) October(M) 2018(Y)

[3] **Buyer's Name** – Company name of the buyer

[4] **Buyer's Address** – Company address of the buyer

[5] **Attention** – The person who is responsible of invoice receiving

[6] **Seller's Name** – 'VizuaMatix (Private) Limited'. This is a fixed text

[7] **Seller's Address** – This address can be changed but its fixed for a period

[8] **Customer VAT Number** – This is unique for a customer

[9] **Supplier VAT Number** – This is a unique number for the company

[10] **Payment Reference** – This will be mentioned according to the requirement of the invoice and there can be additional information mentioned which is specific for each company

[11]-[14] These fields will be added to the invoice according to the requirement of the issuing and the company (Buyer)

[15] **Total** – This is the total amount estimated for the product and it's in USD

[16] **Amount Claimed** – This is an optional field. It is used when the estimated amount for the product is charged partially

[17] **The exchange rate** – The exchange selling rate of the invoice issued date

[18] **Total** (LKR) – The total in Sri Lankan rupees and it is calculation after additional charges or discounts or partially charges

[19] **NBT** - Added to the total amount in LKR (a percentage of the total in [18])

[20] **VAT -** Added to the total amount in LKR (a percentage of the total in [18] +NBT in [19])

[21] **Total** – Amount payable from this invoice

[22] Mentioned sentences should be added to the invoice according to the purpose and the buyer (company)

[23] **Signature** – Signature of Mrs. Amila Crishani or Mr. Theekshana Kumara or any other authorized person

[24] **Designation** – Designation will be Deputy CEO or Director according to the signed person

2.0 Requirement Specification

2.1 Users

1. Finance officer
2. Admin

2.2 Functional Requirements

Functional Requirement	Description
1. Login	- Authorized people must be able to access the system and carry out only the authorized functionalities via an user account.
2. Logout	- User must be able to logout (exit) the system safely and prevent unauthorized people from accessing the system via the particular user account.
3. Add user a) Enter user details	- Admin must be able to add a new user to the system, then the newly added user should be able to access the system and carry out the functions he is authorized. -User must enter the required details of the new user first to successfully add the new user to the system.
4. View users	- Admin must be able to see all the current users in the system and their authorization levels. (Ex: admin, financial officer) - Admin should also be able to see the users blocked from the system.
5. Block user	- Admin must be able to block a user from accessing the system. - Blocked users should be prevented from logging into the system at the Login interface.
6. Create invoice a) Enter Invoice details b) Do financial calculations	- Create a pdf of the invoice according to the give draft format of the invoices. - Required details for the invoice must be entered first to create the Invoice

	- When the required amounts are entered by the user, system should make the necessary calculations and display the results at the appropriate places.
7. View invoice	User must be able to view the created invoice.
8. Print Invoice	User must be able to print the created invoice.
9. Search Invoice history by Buyer name, Invoice status and PO No.	- User must be able to sort the invoices in the invoice history by a buyer name, status of the invoice, Invoice No. or the PO No. - There are 2 invoice status: 1. Outstanding - Relevant cheque for the particular invoice is not yet received. 2. Received -Relevant cheque for the particular invoice is already received.
10. View a list of all invoices issued	- User must be able to view a list of all the invoices issued by the company. - List must be organized in the descending order of the invoice number. (In the list of all invoices issued, invoice issued last should appear first and the invoice issued first should appear last)
11. View a particular invoice in the history	- User must be able to view the contents of an invoice issued earlier. (saved in the invoice history)
12. Add cheque receipt and cheque deposit details	- For invoices where “status = outstanding” (relevant cheque for the particular invoice is not yet received), user must be able to **enter** the relevant received cheque’s details and details about where the cheque is deposited.
13. View cheque receipt and cheque deposit details	- For invoices where “status =received” (relevant cheque for the particular invoice is received), user must be able to **view** the relevant received, cheque’s details and details about where the cheque is deposited.

14. Add new buyer a) Enter new buyer details	- User must be able to add a new buyer's details into the system. -User must enter the required details of the new buyer first, to successfully add the new buyer into the system. - After successfully adding a buyer into the system, system should provide the option to select the buyer when required.
15. View a list of all buyers	- User must be able to see a list of all buyers available in the system. - System should provide the option to identify whether a buyer is blocked or not.
16. View a particular buyer's details	- User must be able to view all details stored in the system about a buyer.
17. Edit buyer details	User must be able to edit the details of a buyer already stored in the system.
18. Block buyer	- User must be able to Block a buyer already available in the system. -System should stop providing Users, "Blocked Users" as an option to be selected in selection menus.
19. View a summary of all Invoices	- User must be able to view: 1. How many invoices are with the status of 'Outstanding' and the total value of all the invoices with the status 'Outstanding'. 2. How many invoices are with the status of 'Received' and the total value of all the invoices with the status 'Received'. 3. Total no. of Invoices issued and the value of all issued Invoices.
20. Add new bank account a) Enter new bank account details	- User must be able to add a new bank account (a bank account of vx) to the system. - After successful adding a new account to the system, system should provide the option to select the account when required.

	- User must enter the required details of the new bank account first, to successfully add the new bank account to the system.
21. View a list of all Bank accounts	- User must be able to view a list of all the bank accounts (of vx) saved in the system.
22. Block a Bank account	- User must be able to Block a bank account already available in the system. -System should stop providing Users, “Blocked bank accounts” as an option to be selected in selection menus and users should not be able to enter “Blocked bank accounts” as an input to the system.

2.3 Non-functional Requirements

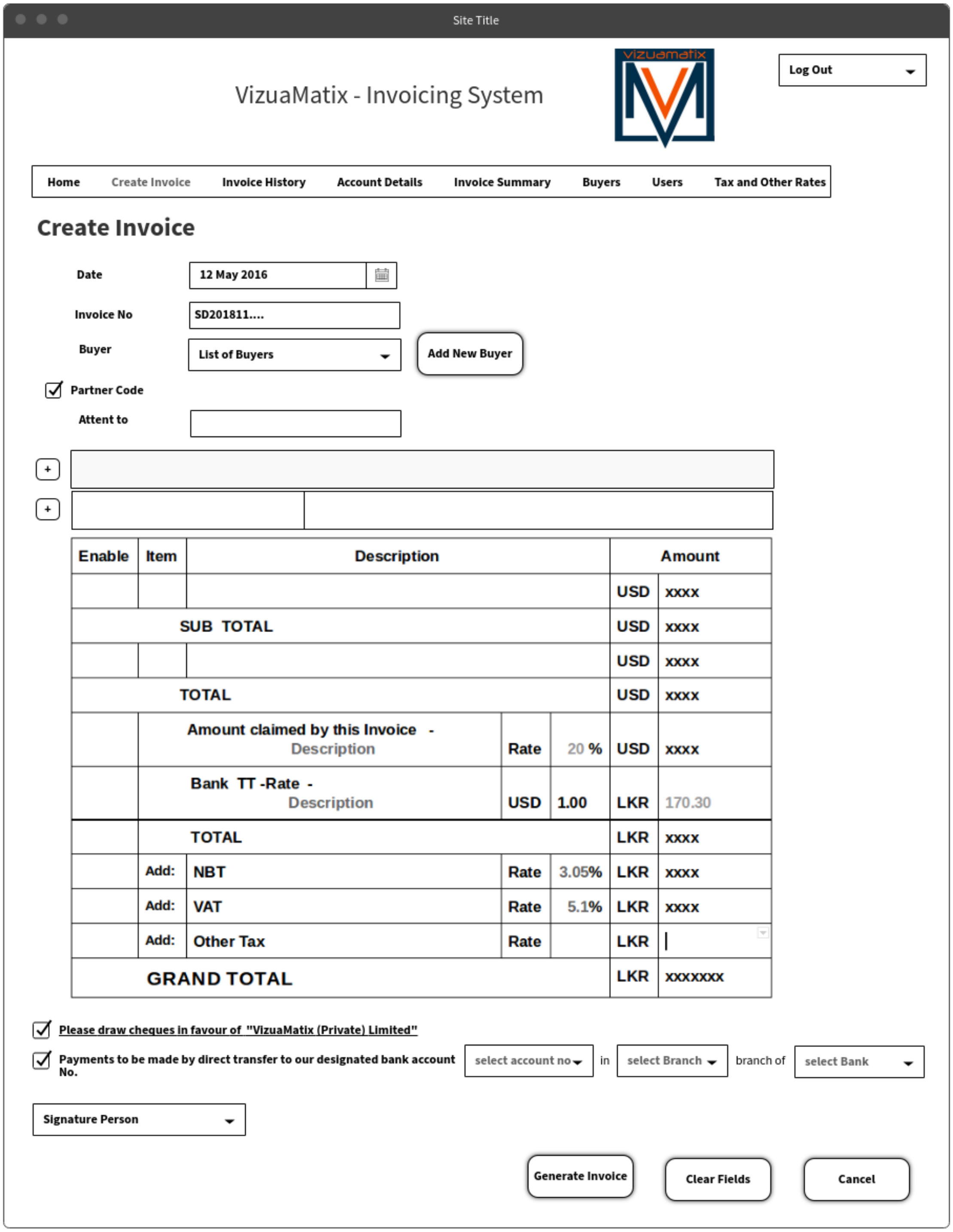
Non - functional Requirement	**Description**
1. Security	As the system involves financial data the risk involved is high, necessary security measures such as logins, establishing authority levels, etc. must be included in the system
2. Speed	System should provide the users the services at a considerable high speed
3. Accuracy	Financial calculations must be carried out with high accuracy and there can’t be errors in the calculations Measures must be implemented to detect and correct human errors in entering details
4. Recoverability	System must have necessary measures to recover the data, if a system failure occurs
5. Maintainability	System must be developed in such a way that future changes to the system can be done to capture future requirements (extendable)

2.4 Limitations

1. System only provides Invoicing related services.
2. System can’t be merged with existing financial related systems
3. System does not provide the facility to directly email invoices to the relevant parties

3.0 Interfaces

3.1 Create Invoice



- **Date** – By default the current date is selected. User should be able to select a past or a future date if necessary.
- **Invoice No** – There is a specific pattern in generating the invoice no.

$$\text{SD}\underbrace{\text{201810}}_{[1]}\underbrace{\text{251}}_{[2]}$$

[1] – It is the selected date of the invoice. This should be auto generated with SD.

[2] – Current invoice number. User should add the number manually.

Invoice number should be unique. Therefore, system should notify and stop if a duplicate of an already existing invoice no. is made.

- **Buyer –** There should be a drop-down list of buyers. User has the ability to create a new buyer including following mandatory details:
    - **Buyer name**
    - **Address**
    - **E-mail**
    - **Contact Number and Fax**
    - **VAT No**
- **Partner Code –** This option can be enabled according to the company status
- **Attention to –** This field should be filled manually
- **Customer VAT No –** This should be added automatically to the PDF according to the selected company. (buyer)
- **Supplier VAT No –** This is the 'VizuaMatix' VAT No. and it should be included on the final document.
- Admin can add additional 1 column: rows for payment reference etc and 2 columns: rows can be added for additional information
- **Invoice entry table -** Invoice entry table contains the necessary columns and rows to enter and display required financial information.
    - If a (+) button is available to the left of a row, that row can be used multiple times. User can add an additional row by clicking on the (+) button.

- If a checkbox is available to the left of a row, that row is optional and can be enabled/ disabled using the checkbox according to the requirement of the user.
- For every row the currency type (USD or LKR) can be selected using the dropdown provided.

Enable	Item	Description			Amount		
					USD	xxxx	[1]
SUB TOTAL					USD	xxxx	[2]
					USD	xxxx	[3]
TOTAL					USD	xxxx	[4]
	Amount claimed by this Invoice - Description		Rate	20 %	USD	xxxx	[5]
	Bank TT -Rate - Description		USD	1.00	LKR	170.30	[6]
	TOTAL				LKR	xxxx	[7]
	Add:	NBT	Rate	3.05%	LKR	xxxx	[8]
	Add:	VAT	Rate	5.1%	LKR	xxxx	[9]
	Add:	Other Tax	Rate		LKR		[10]
GRAND TOTAL					LKR	xxxxxxx	[11]

- **Item rows [1] -** Values for the 'Description' and 'Amount' columns should be manually entered by the user. User can add additional item rows according to the requirement.

- **Subtotal [2] -**System generates the 'Subtotal' by adding up all the 'amounts' in all 'item rows'. Subtotal is an optional row that can be enabled/ disabled according to the requirement.

- **Deductions/ Additions [3] -** Using the 'Deductions/ Additions' additional amounts can be deducted or added from/ to the 'Subtotal [2]'.
    - Values for the 'Description' and 'Amount' columns should be manually entered by the user.
    - Using the '(+) and (-) buttons' immediately before the 'Description' column, it is specified whether the respective amounts should be added or deducted to/ from the 'Subtotal'.

    - User can add multiple ‘Deductions/ Additions rows’ according to the requirement.
    - ‘Deductions/ Additions’ is an optional row that can be enabled/ disabled according to the requirement.
- **TOTAL [4]** - System will generate the sum of the ‘subtotal [2] row amount’ and ‘Deductions/ Additions [3] row amounts ’
    - ‘Total’ is an optional row that can be enabled/ disabled according to the requirement.
- **Amount claimed by this Invoice [5] -** Specifies the amount that is charged using the particular invoice itself (Ex: 20% of the full amount). The percentage should be manually entered by the user.
    - System generates the ‘Amount claimed by this Invoice’ based on the ‘percentage value’ and the ‘Total’.
    - Total value can take amount values in rows [2] or [4] based on, whether those rows are enabled or not.
    - ‘Amounts claimed by this Invoices’ is an optional row that can be enabled/ disabled according to the requirement.
- **Bank rate [6] -** Exchange rate of USD and LKR should be manually entered by the user.

Ex -

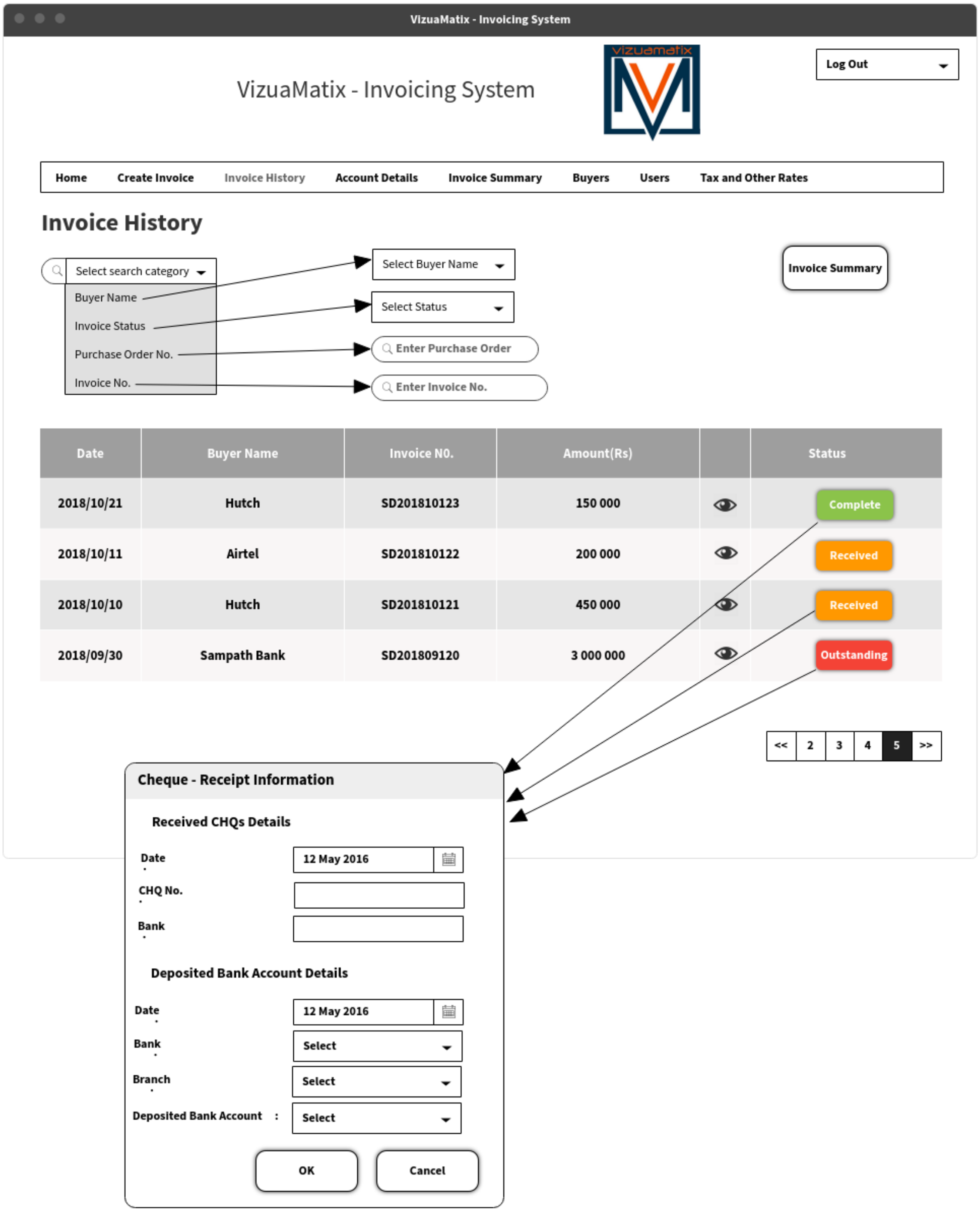
Bank Rate - Description	USD	1.00	LKR	170.30

    - ‘Bank Rate’ is an optional row that can be enabled/ disabled according to the requirement.

- **TOTAL (total before NBT or VAT) [7] -** System generates the ‘Total amount’ based on the ‘Bank Rate’ and the ‘Total’
    - Total value can take amount values in rows [2], [4] or [5], based on whether those rows are enabled or not.
    - ‘TOTAL’ is an optional row that can be enabled/ disabled according to the requirement.

- **NBT [8] -** A default value can be assigned to the NBT rate using the "Tax and other rates" Module. User can change the value manually if required.
    - Based on the 'NBT percentage value' provided (Ex: 2.04%) and the 'Total ', NBT amount is generated by the system.
    - Total value can take 'Amount' values in rows [2], [4], [5] or [7], based on, whether those rows are enabled or not.
    - Equation-> NBT amount = (NBT rate) *(TOTAL without NBT and VAT)
    - 'NBT' is an optional row that can be enabled/ disabled according to the requirement.
- **VAT [9] - A** default value can be assigned to the VAT rate using the "Tax and other rates" Module. User can change the value manually if required.
    - Based on the 'VAT percentage value provided' (Ex: 15%) and the 'Total' and NBT amount the VAT amount is generated by the system.
    - Equation -> VAT amount= (VAT rate) *((TOTAL without NBT and VAT) +NBT)
    - 'VAT' is an optional row that can be enabled/ disabled according to the requirement.
- **Other tax [10] –** Additional taxes introduced by the government can be added manually.
- **TOTAL (Grand Total) column [11]** - System generates the Grand Total including NBT and VAT (if NBT and VAT) rows are enabled.
    - Equation-> Grand Total= (TOTAL without NBT and VAT) +NBT+VAT

3.2 Invoice History



- **Search bar** - Invoice History can be searched by a 'Buyer name', 'status' of the invoice (Outstanding/ Received), Invoice No. or PO No.

- **Invoice Summary Button -** Directs the user to the Invoice Summary Tab, that displays a summary of the total Outstanding, total Received and total Issued Invoices.

- **Invoice History table** - Lists all invoices issued, in descending order of the Invoice No. displaying the date, Buyer Name, Invoice No. and the Amount for each Invoice.

  - **View Icon** - Provides a preview of the content that was included in the selected an invoice.

  - **Status (Outstanding/ Received) -** Displays whether the corresponding cheque for an invoice is received or not.
    - Gives the option to enter or check receipt information through the 'Invoice - Receipt Information' pop-up window.
- **Invoice - Receipt Information' pop-up window -** Enables the user to view or enter details about the receipt of a cheque for an issued invoice:
  - If the status is "Outstanding", user can enter details of the cheque at the receipt of the cheque.
  - If the status is "Received", user can only view the details of the cheque at the receipt of the cheque.
- **Date -** By default current date is selected. User can select a past date or the current date for received cheques details and deposited date can be only current date or a past date.

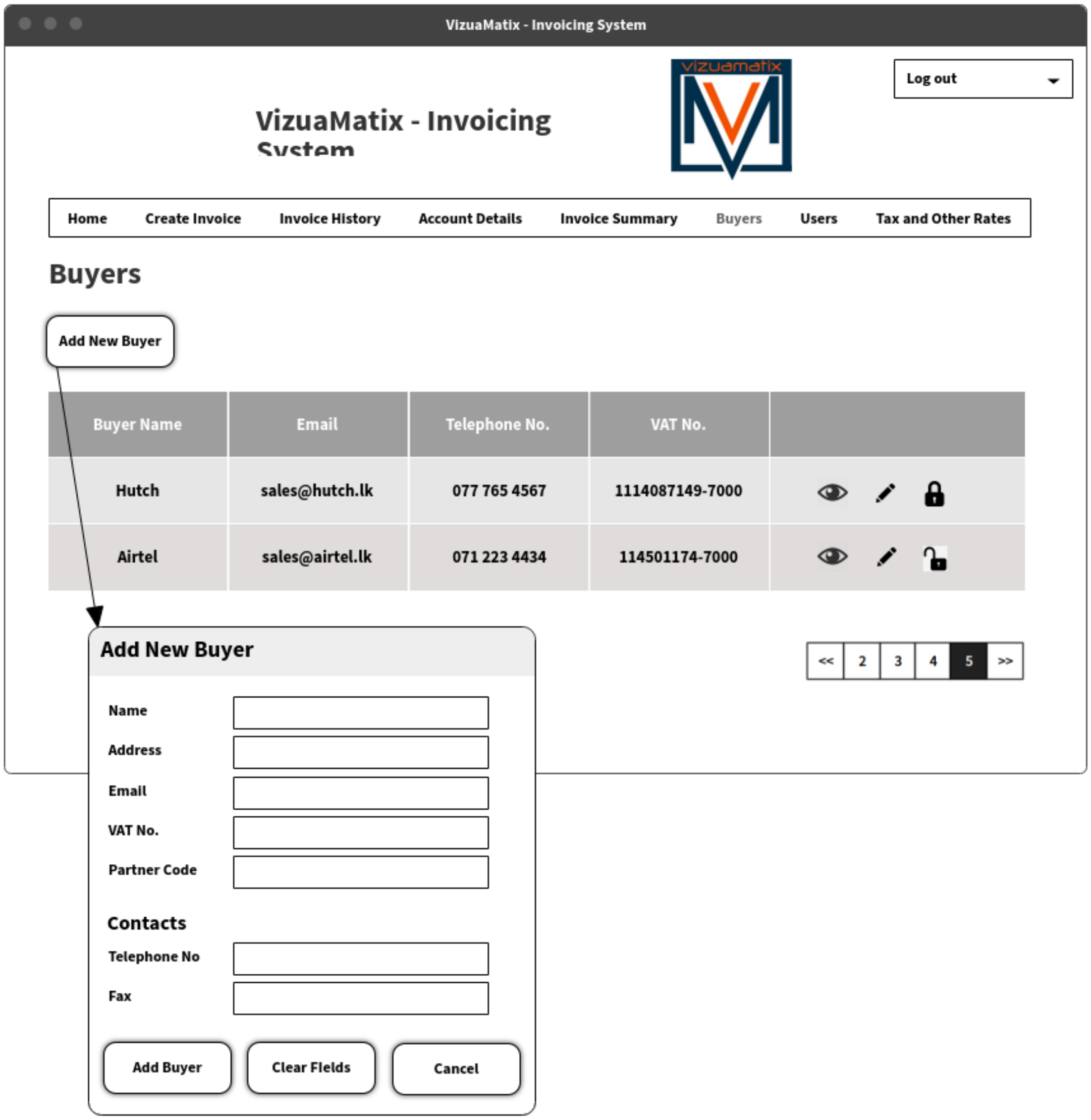
- **CHQ No. and Bank** - Must be manually entered by the user.

- **Bank -** User can select from the dropdown provided, to which bank the cheque is deposited. Once the Bank is selected only the 'Branches' and 'Bank Accounts' coming under the selected Bank will be shown in the respective dropdowns.

- **Branch** - User can select from the dropdown provided, to which bank branch the cheque is deposited. Once the Branch is selected only the 'Banks' and 'Bank Accounts' coming under the selected Branch will be shown in the respective dropdowns.

- **Deposited Bank Account -** User can select from the dropdown provided to which bank account the cheque is deposited. Once a Bank account is selected, respective 'Bank' and the 'Branch' will be selected by the system itself.

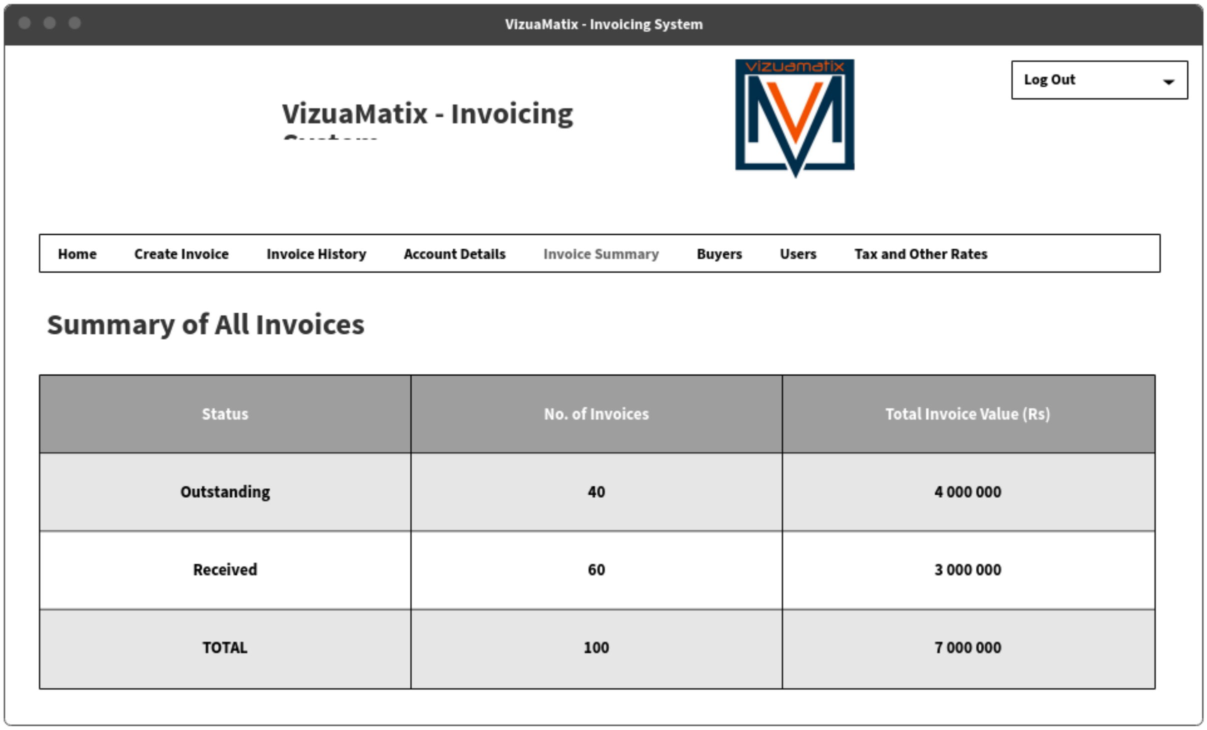
3.3 Buyers



- **Add New Buyer button** - Provides a pop-up window to add a new buyer to the system.
- **Add New Buyer pop-up window** - Enables the user to add a new buyer to the existing buyer list.
  - **Name** -Name of the New Buyer (Ex: Hutchison Pvt. Company Ltd.). Must be entered manually.
  - **Address** - Mailing address of the New Buyer. Must be entered manually.
  - **Email** - Email address of the New Buyer. Must be entered manually.

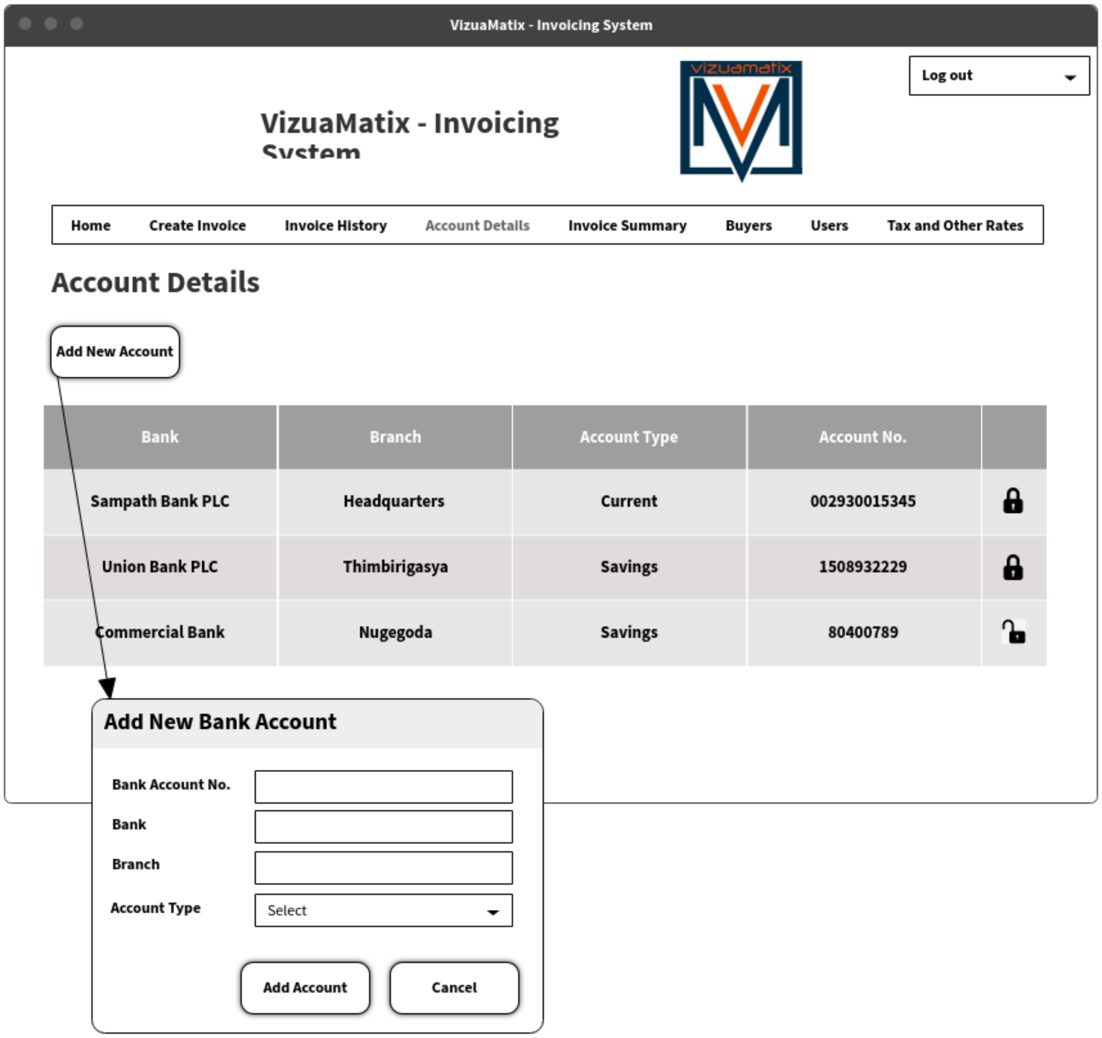
    - **VAT No.** - Respective VAT No. of the New Buyer. Must be entered manually.
    - **Partner Code** - Respective Partner code of the company with the New Buyer. Enter only if available. Must be entered manually.
    - **Telephone No. and Fax** - Telephone no. and the Fax no. of the new buyer. Must be entered manually.
- **Buyer table** - Lists all the buyers saved in the system. Displays the ‘Buyer Name, Email, Telephone No. and the VAT No. in a table.
    - **View Icon** - Directs the user to a pop-up window containing information of the selected Buyer with only view permission.
    - **Edit Icon** - Directs the user to a pop-up window containing information of the selected Buyer with editing permission.
    - **Block Icon** - Gives the user the option to Block the Buyer.
    - **Unblock Icon** - Gives the user the option to Unblock an already blocked user.

3.4 Summary of Total Invoices



- **Summary of Total Invoices Table -** Lists the:
    - No. of invoices and the Total value of invoices with the status ‘Outstanding’.
    - No. of invoices and the Total value of invoices with the status ‘Received’ and the
    - ‘Total no. of issued Invoices’ and the Total value all issued Invoices.

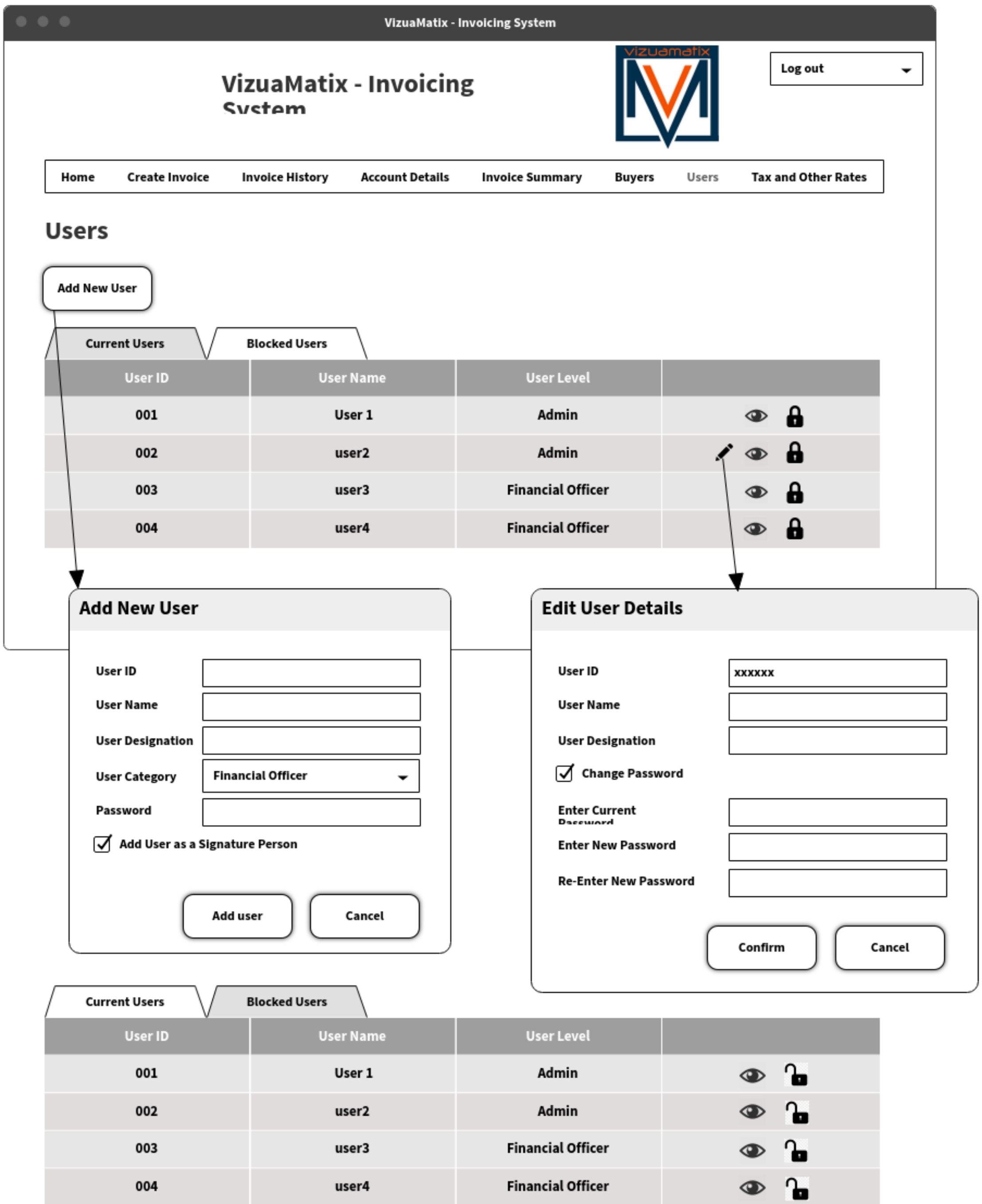
3.5 Account Details



- **Add New Account Button** - Provides a pop-up window to add a new bank account of VizuaMatix to the system.
- **Add New Bank Account Pop-up:** Enables the user to add a new bank account to the system.
  - **Bank Account No.** - Bank Account no. Should be manually filled by the user.
  - **Bank** - Name of the Bank, must be manually filled by the user.
  - **Branch** - Bank Branch where the account is opened must be manually entered by the user.
- **Bank Account Details Table** - Lists all the Bank accounts that are enterer to the system displaying the 'Bank, branch and the Account No.' of each bank account.
- **Block Button** - Blocks the selected Bank Account. Users will not be able to use the blocked bank account within the system.

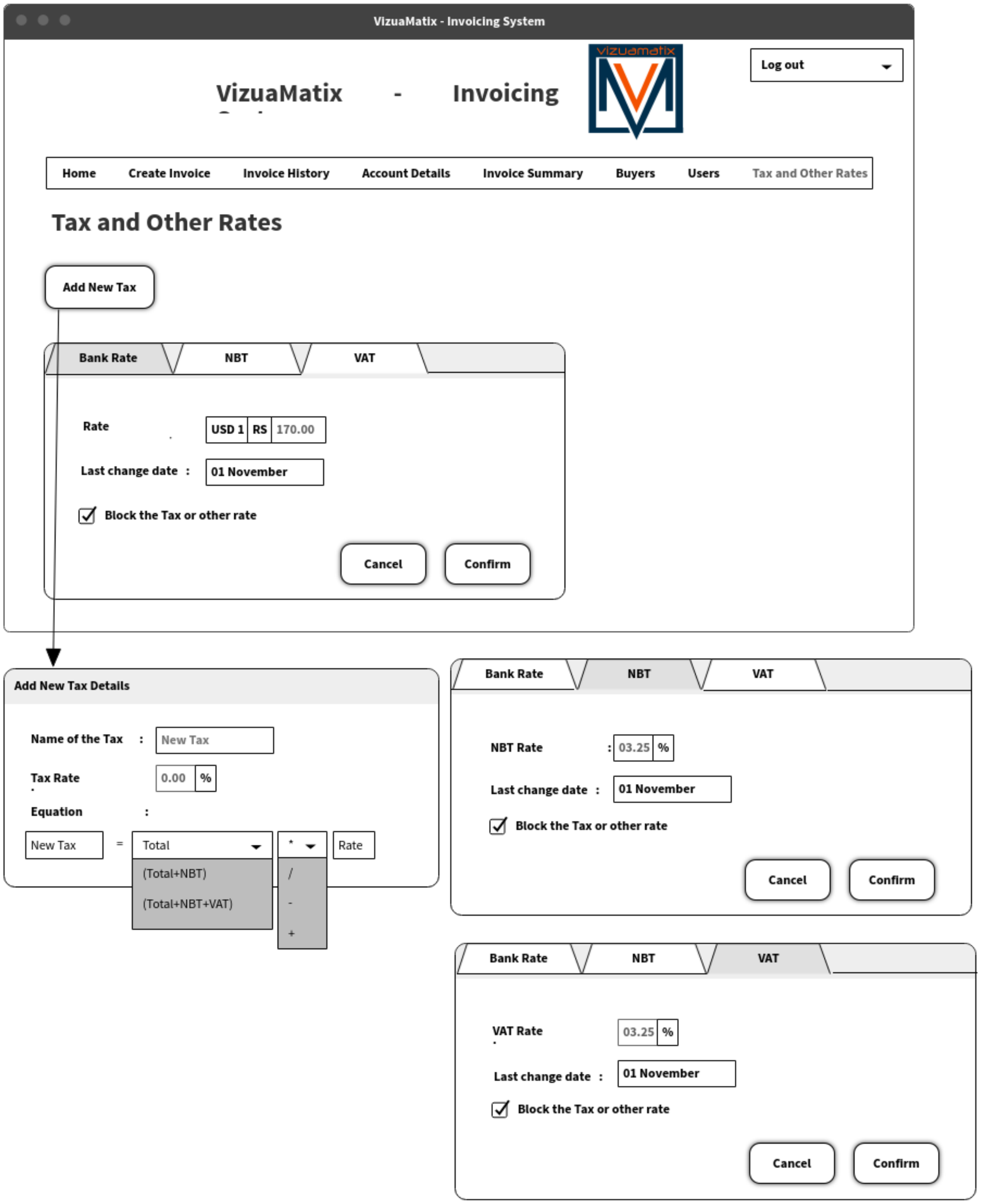
- **Unblock Button** - Gives the user the option to Unblock an already blocked bank account.

3.6 Users



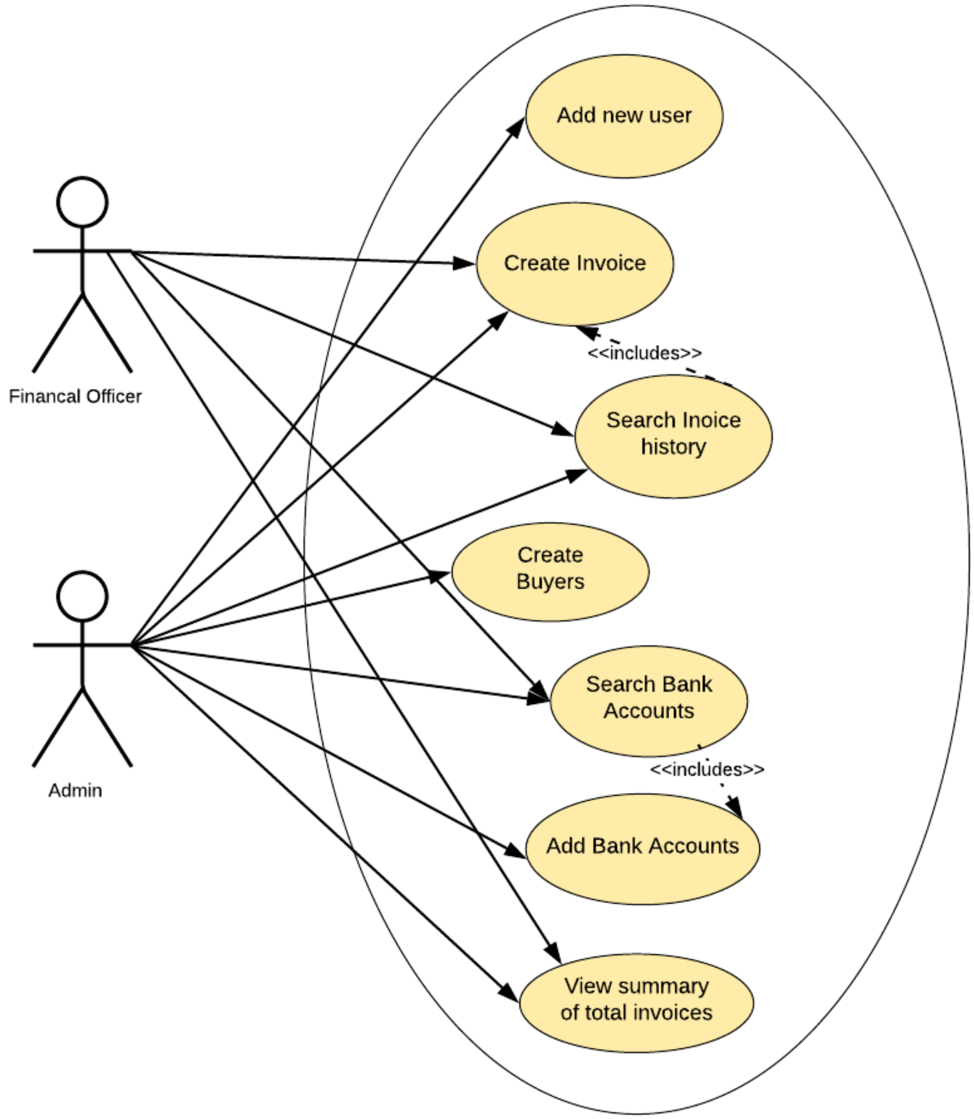
- **Add New User** - Provides a pop-up window to add a new user to the system.
- **Add New User pop-up window:** Enables the user to add a new user to the system.
    - **User ID** - An Auto increment numerical value which is unique to each user.
    - **User Name** - Username of the account, must be manually filled by the user.
    - **User Designation -** Designation of the User must be entered manually by the user.
    - **User Category** - New User account's authority level (financial officer, admin), must be selected from the given dropdown.
    - **Password** - Password of the new user account
    - **Add user as a Signature Person -** User can select or unselect this. If selected, User will be added as a signature person and the user and his/her designation will be available to be selected at the 'Select Signature Person' dropdown in the 'Create Invoice' Interface.
- **Current Users Table** - Lists all the current users that are available in the system displaying the 'user id and user name'
- **Blocked Users Table** - Lists all the blocked users in the system displaying the 'user id and user name'
- **View icon** - Displays all the details saved on the particular user via a pop-up window.
- **Edit Icon** - The owner of a user account or the admin can change the details of a user.
- **Block Icon** - Admin can Block a user from accessing the system.
- **Unblock Icon** - Admin can Unblocks a user. Unblocked users will be able to access the system again.

3.7 Tax and Other Rates



- **Bank Rate/ NBT/ VAT Tab -** Provides the user the option to select which rates (Bank rate, NBT rate or VAT rate) should be adjusted.
    - **Rate in Bank Rate Tab -** User has to manually enter the LKR value of USD 1.
    - **NBT Rate in NBT Tab** - User has to manually enter the NBT value.
    - **VAT Rate in VAT Tab** - User has to manually enter the VAT value.
    - **Applicable Period -** Starting date is static and set to the present date. User has to manually select the end date of the period.
        - The Respective Bank Rate/ NBT Rate/ VAT rate will be applied for the selected time period.
        - If an end date is not selected, the respective rate will be applied to all instances until the rate is changed again.
        - Although the rates are set using the ‘Tax and other Rates’ Interface, user can change the rates if required at the ‘Create Invoice’ Interface.

4.0 Use Case Diagram



1. **Add New User –** Admin has the privilege to add a new user or to edit user details

2. **Create Invoice** – Admin and Finance office have the privilege to create an invoice for a buyer. User has to go through following steps,

- Add Invoice details
- Add buyer details
- Do financial calculations
- Print the pdf version of the invoice

3. **Search Invoice History** – Admin and Finance office have the privilege to search invoice history. User can print an invoice from the history list.

- User can add or view cheque receipt and deposit details

4**. Add new buyer** - Admin has the privilege to add a new buyer or to edit buyer details

5. **View summary of total invoices** – Admin and financial officer can view a summary of the total invoices within a given period

6. **Add bank accounts** - Admin has the privilege to add a new bank account or to edit bank account details