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B.Tech. CE Semester – VI

Subject: Service Oriented Computing

Project Title: Daily Expenses Management System

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CERTIFICATE

This is to certify that the project entitled “**Daily Expense Management System**” is a bonafide report of the work carried out by

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Abstract

This project mainly deals with creating an application regarding Income and Expense of User. The purpose of Expense management system is to automate the existing manual system by the help of computerized equipment and software, fulfilling their requirements, so that their valuable data/info can be stores for longer period with easy accessing and manipulation of the same. Expense management system, as described, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on record keeping. So users can have all record of their income and expense easily with net balance.

Introduction

The “Expense management system” has been developed to override the problems of keeping record manually with redundant data. The application is reduced as much as possible to avoid the errors while entering the data. No formal knowledge is needed for user to use this system. Thus by all this it proves it is user-friendly. Every user or organization has challenges to overcome and managing the information of Income, Expense, Payment, Registration. Every expense management system has different expense needs, therefor we design exclusive Income management system that is adopted to your income requirements. This system will allow user to better manage its all transactions based on their domain.

➤ Technology Used

- ASP.NET
- MySQL
- WCF Services

➤ Platform

- Desktop

➤ Tools

- Visual Studio 2015

Software Requirement Specification

Expense Management System

➤ **Types of Users:**

1. End User

R.1: End User

R.1.1: Add Income

Input: Amount, Source, Date, Description and Type of payment, etc.

Output: Success message of income is added.

Description: User can add his/her income by providing necessary details. Income and Total balance will be updated.

R.1.2: Add Expense

Input: Amount, Source, Date, Description and Type of payment, etc.

Output: Success message of expense is added.

Description: User can add his/her income by providing necessary credentials. According to it total balance will be deducted. Expense and Total balance will be updated.

R.1.3: Show transactions

Input: User selection

Output: Record of all transaction has been done.

Description: User can view their history of transactions.

R.1.4: Update transaction

Input: User selection

Output: Displayed updated information

Description: User can select any past transaction and update its information by providing updated detail. According to that net balance would also be update.

R.1.5: Delete transaction

Input: User selection

Output: Transaction will be deleted from history.

Description: User can select any past transaction and delete it from history and according to income or expense type of it's the net balance would be updated.

R.1.6: Reset Transactions

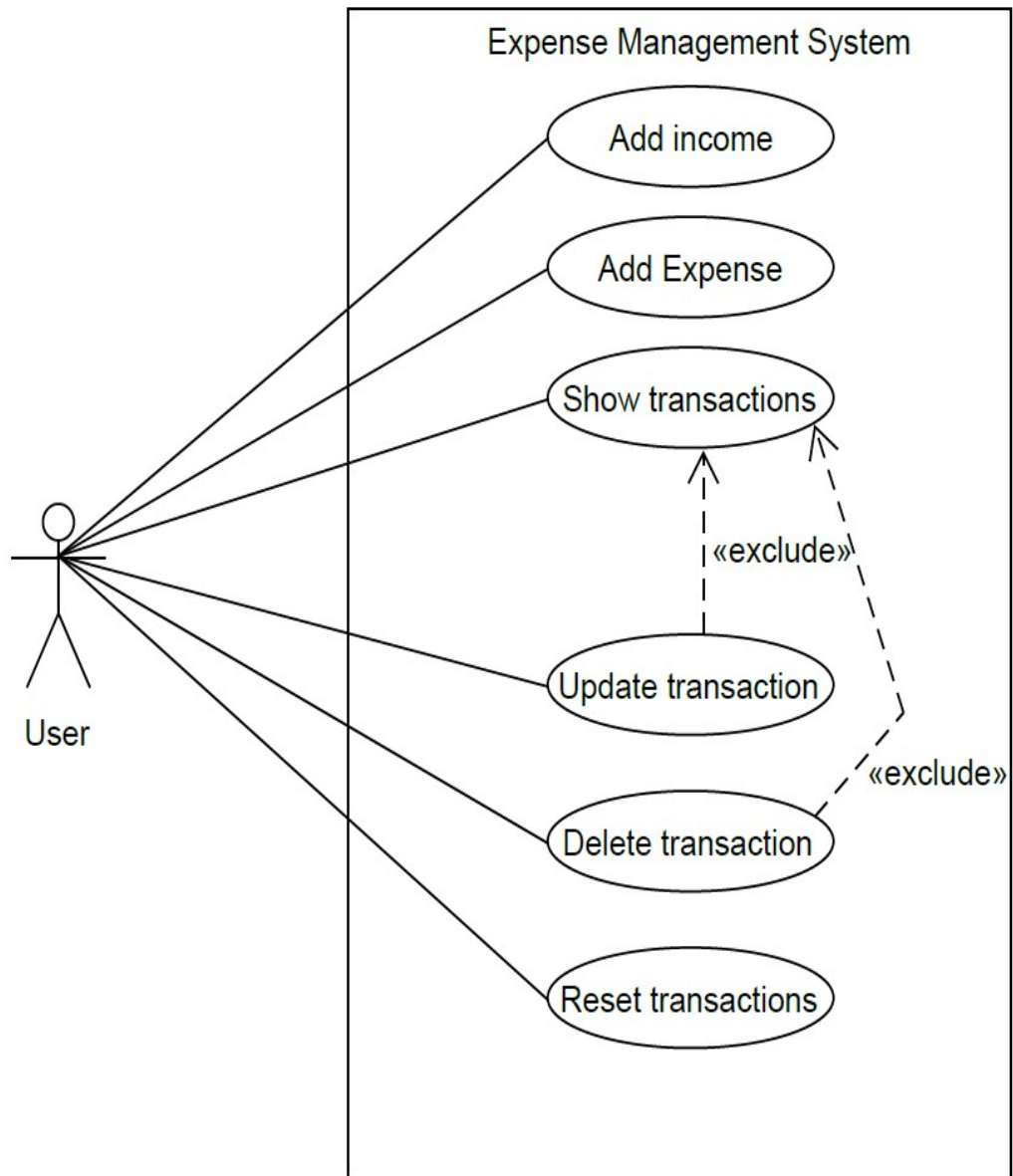
Input: User selection

Output: Success message.

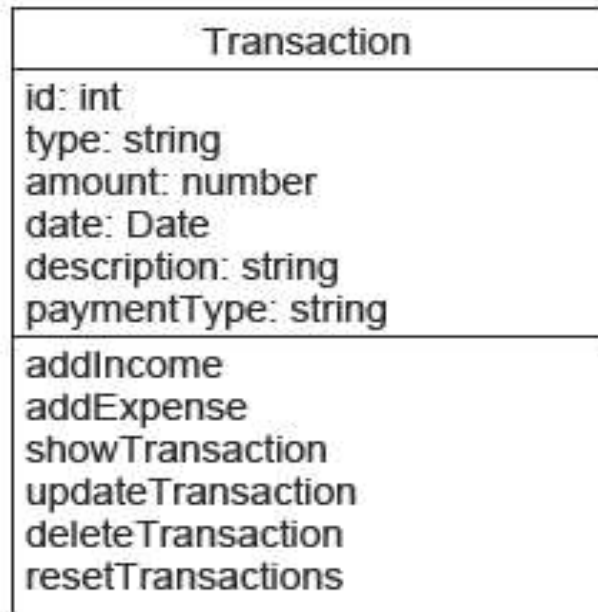
Description: User can clear their past all transactions. So net income, expense and balance would become nill.

Design

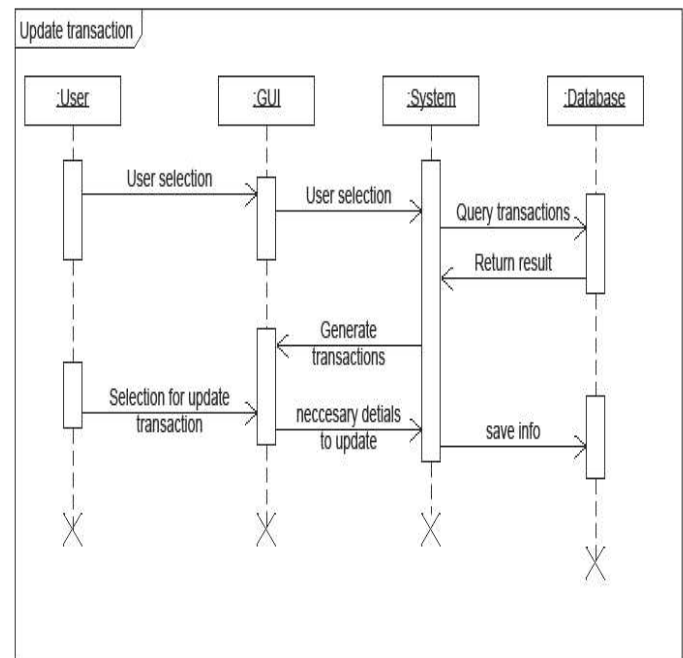
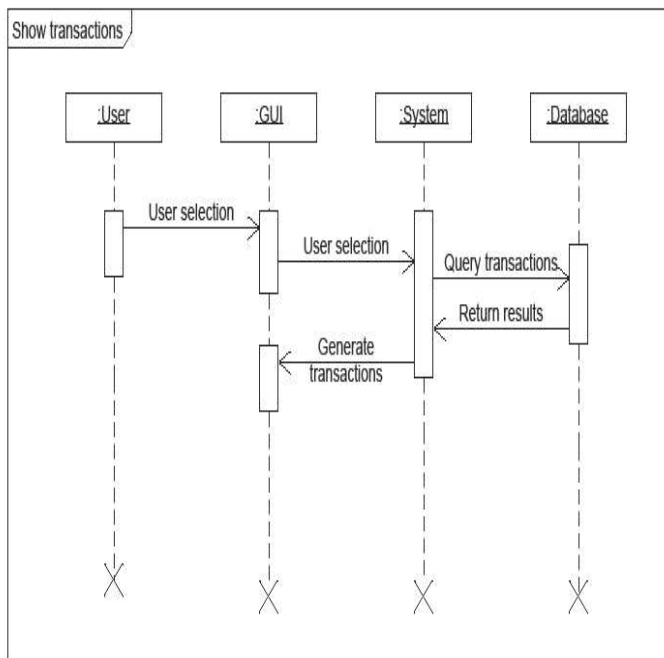
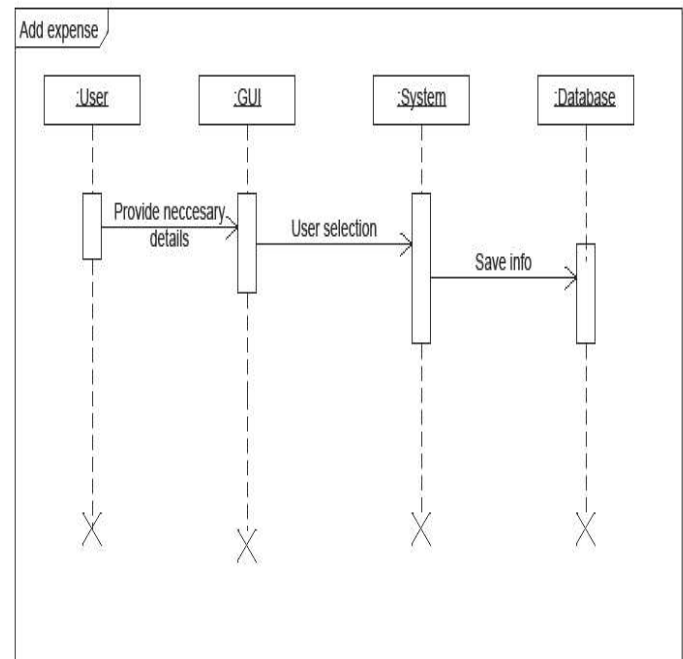
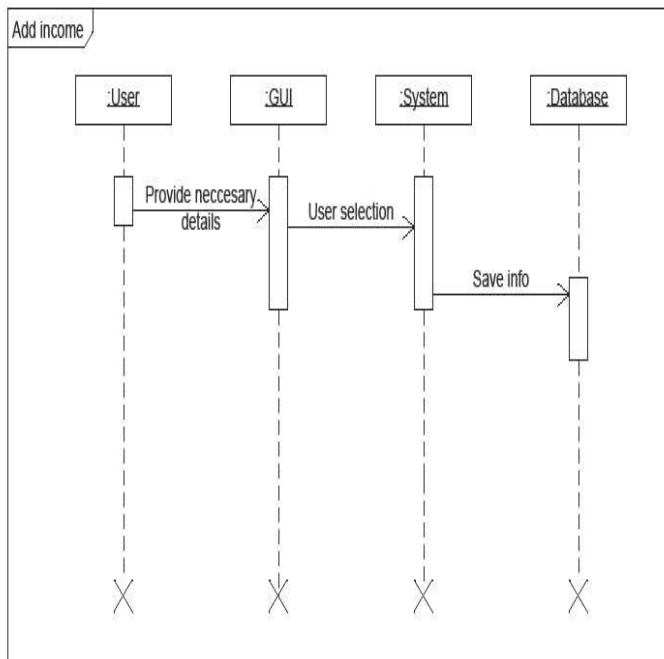
1) Use Case Diagram



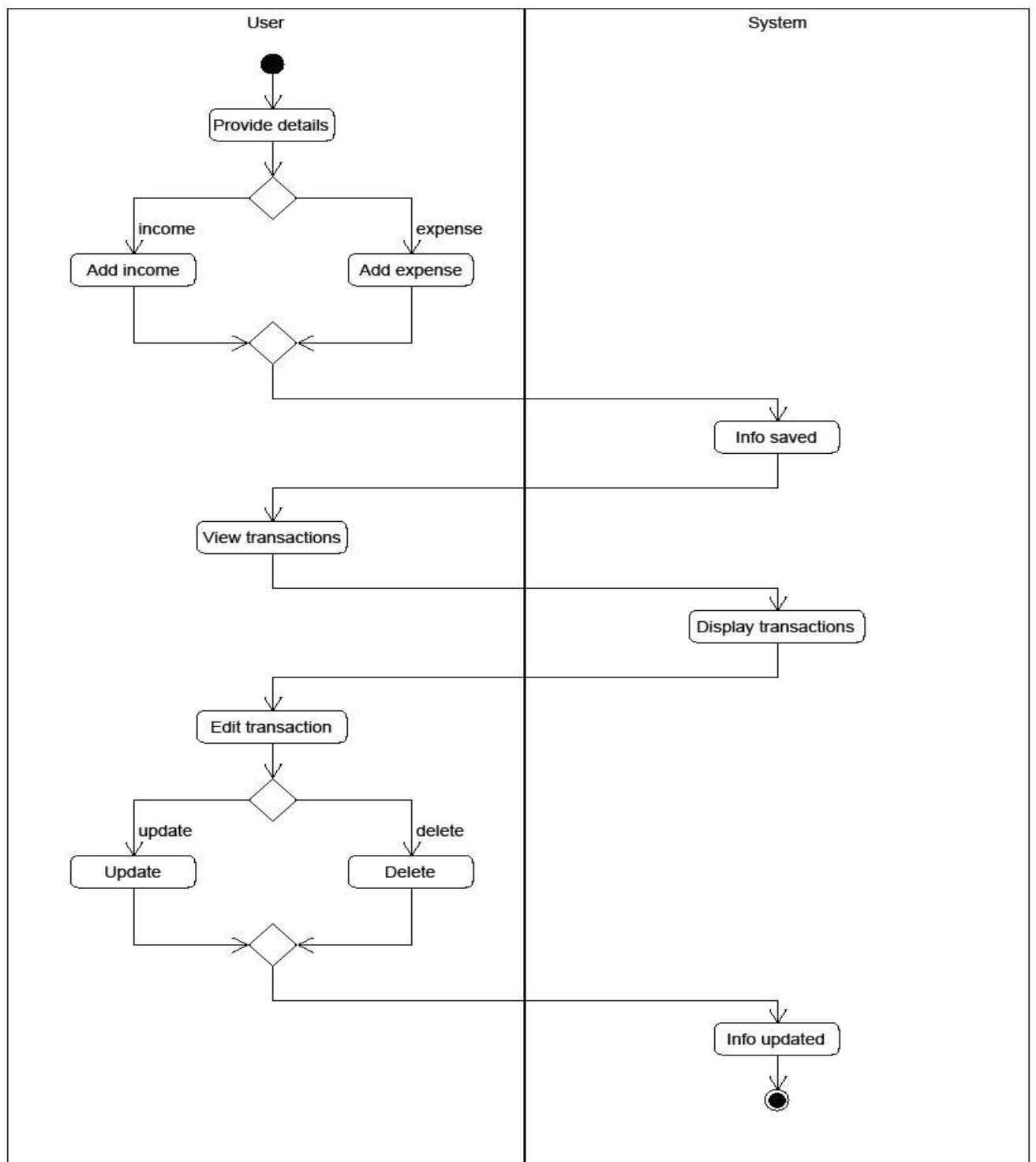
2.) Class Diagram



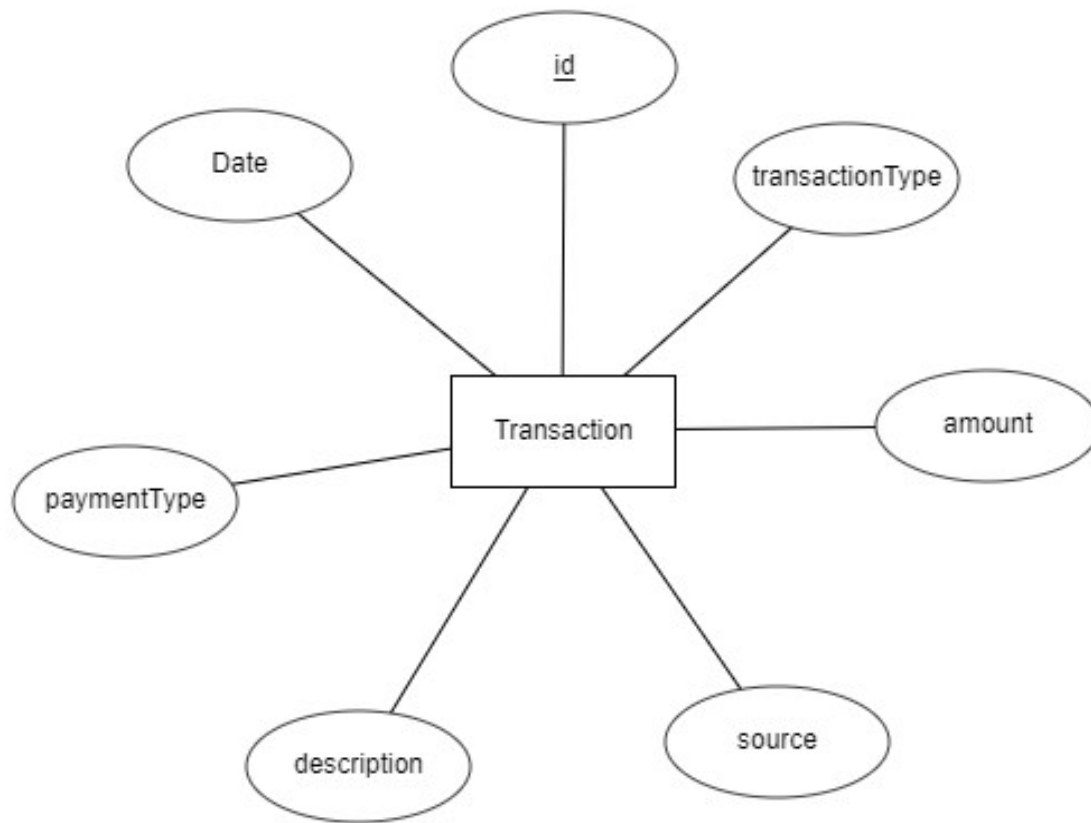
3.) Sequence Diagram



4.) Activity Diagram



5) E-R Diagram



6) Data Dictionary

1.TRANSACTION

<i>Attribute name</i>	<i>Data Type</i>	<i>PK</i>	<i>Unique</i>	<i>Ref</i>	<i>Description</i>
<i>Transaction_id</i>	<i>Int</i>	<i>Yes</i>	<i>Yes</i>		<i>Unique id of transaction</i>
<i>Transaction_type</i>	<i>Varchar</i>	<i>No</i>	<i>No</i>		<i>Type of transaction Like INCOME and EXPENSES</i>
<i>Amount</i>	<i>Number</i>	<i>No</i>	<i>No</i>		<i>Amount as expense or income</i>
<i>Source</i>	<i>Varchar</i>	<i>No</i>	<i>No</i>		<i>From where amount is come and on which its spent</i>
<i>Date</i>	<i>Datetime</i>	<i>No</i>	<i>No</i>		<i>At which date transaction has been done</i>
<i>Description</i>	<i>Varchar</i>	<i>No</i>	<i>No</i>		<i>Brief description of transaction</i>
<i>paymentType</i>	<i>Varchar</i>	<i>No</i>	<i>No</i>		<i>Cash, cheque, credit card, etc.</i>

Implementation Detail

1. Client Side Module

- *Add Income – user can add his/her income by providing mandatory details like amount, date of transaction, brief description, type of payment like credit card, etc.*
- *Add Expense – user can add his/her expenses by providing mandatory details like amount, date of transaction, brief description, type of payment like credit card, etc.*
- *Show all transaction – user can see his/her all past transactions.*
- *Update transaction – user can update its existing transaction by providing updated details.*
- *Delete transaction – user can update its existing transaction.*
- *Reset system – user can delete past history of transaction.*

Screen-shots

The screenshot displays the 'Daily Expenses Manager' application window. On the left, there is a form for adding income with the following fields: 'Amount' (700), 'Source' (Salary), 'Date' (19 April 2020), 'Description' (From Bug Bounty), and 'Type' (Credit Card). A 'RESET' button is located at the top left of the form. Below the form are three icons: a hand holding a dollar sign for 'Add Income', a hand holding a coin for 'Add Expenses', and a hand holding a stack of coins for 'All Transaction'. On the right side of the window, the current financial status is shown: 'Income :25808', 'Expense : -1500', and 'Balance : 24308'. A large grey rectangular area is present below the status, likely for a transaction list. A small dialog box in the center of the screen displays the message 'Income added Successfully !' with an 'OK' button. At the bottom right, there are 'Update' and 'Delete' buttons, and a note that says '* For Update or Delete click corresponding row'.

1. *View of system when user add his/her income.*

Form1

Daily Expenses Manager

RESET

Amount : 500

Source : Education

Date : 19 April 2020

Description : For DDIT fees

Type : Cheque

Add Income Add Expenses All Transaction

Income : 26508
Expense : -1500
Balance : 25008

Id	transactionType	amount	payment
3045	INCOME	7258	Credit Ca
3046	INCOME	750	Cheque
3047	INCOME	8000	From my
3048	EXPENSE	-500	Credit Ca
3051	INCOME	800	Debit Ca
	EXPENSE	-500	Debit Ca
	INCOME	9000	Debit Ca
	EXPENSE	-500	Cash
	INCOME	700	Credit Ca

Expense added Successfully!

OK

* For Update or Delete click corresponding row

Update Delete

2. View of system when user add his/her expense.

Form1

Daily Expenses Manager

RESET

Amount : 700

Source : Salary

Date : 19 April 2020

Description : From Bug Bounty

Type : Credit Card

Add Income Add Expenses All Transaction

Income : 26508
Expense : -1500
Balance : 25008

Id	transactionType	amount	payment
3045	INCOME	7258	Credit Ca
3046	INCOME	750	Cheque
3047	INCOME	8000	From my
3048	EXPENSE	-500	Credit Ca
3051	INCOME	800	Debit Ca
3052	EXPENSE	-500	Debit Ca
3053	INCOME	9000	Debit Ca
3054	EXPENSE	-500	Cash
3055	INCOME	700	Credit Ca

* For Update or Delete click corresponding row

Update Delete

3. View of system when user click on “All transactions”

RESET

Daily Expenses Manager

Amount : 1500

Source : Food

Date : 19 April 2020

Description : For weekend food with friends

Type : Cheque

Add Income Add Expenses All Transaction

Income : 27508
Expense : -2000
Balance : 25508

Id	transactionType	amount	payment
3045	INCOME	7258	Credit Ca
3046	INCOME	750	Cheque
3047	INCOME	8000	From my
3048	EXPENSE	-500	Credit Ca
3051	INCOME	800	Debit Ca
	EXPENSE	-500	Debit Ca
	INCOME	9000	Debit Ca
	EXPENSE	-500	Cash
	INCOME	700	Credit Ca
	EXPENSE	-500	Cheque

Update Successfully!

OK

* For Update or Delete click corresponding row

Update Delete

4. View of system when user update past record.

RESET

Daily Expenses Manager

Amount : 9000

Source : Salary

Date : 19 April 2020

Description : From Bug Bounty

Type : Debit Card

Add Income Add Expenses All Transaction

Income : 27508
Expense : -3000
Balance : 24508

Id	transactionType	amount	payment
3045	INCOME	7258	Credit Ca
3046	INCOME	750	Cheque
3047	INCOME	8000	From my
3048	EXPENSE	-500	Credit Ca
3051	INCOME	800	Debit Ca
	EXPENSE	-500	Debit Ca
	INCOME	9000	Debit Ca
	EXPENSE	-500	Cash
	INCOME	1700	Debit Ca
	EXPENSE	-1500	Cheque

Delete Successfully!

OK

* For Update or Delete click corresponding row

Update Delete

5. View of system when user delete past record.

The screenshot shows the 'Daily Expenses Manager' application window. On the left, there is a form with fields for Amount (9000), Source (Salary), Date (19 April 2020), Description (From Bug Bounty), and Type (Debit Card). Below the form are three icons: 'Add Income' (hand holding a dollar sign), 'Add Expenses' (hand holding a dollar sign with a minus), and 'All Transaction' (hand holding a list). On the right, there is a summary section showing 'Income : 18508', 'Expense : -3000', and 'Balance : 15508'. Below this is a table of transactions. A dialog box with the text 'Successfully Reseted!' and an 'OK' button is overlaid on the table. At the bottom right, there are 'Update' and 'Delete' buttons.

	Id	transactionType	amount	payment
▶	3045	INCOME	7258	Credit Ca
	3046	INCOME	750	Cheque
	3047	INCOME	8000	From my
	3048	EXPENSE	-500	Credit Ca
	3051	INCOME	800	Debit Ca
		EXPENSE	-500	Debit Ca
		EXPENSE	-500	Cash
		INCOME	1700	Debit Ca
		EXPENSE	-1500	Cheque

* For Update or Delete click corresponding row

Update Delete

6. View of system when user reset transaction history.

Conclusion

Expense Management System is very effective, efficient, reliable and flexible solution for keeping track of group of expenses on the go rather than contemporary way of making mental and sometimes erroneous calculations. It provides all the current needs of a client when it comes to managing expense or income or keeping record of it. The proposed project is very flexible, so new features and modules can be added in future as per user requirements. We have implemented all the functionalities in end user side. User can add income or expense and view all past transaction that has been made by user and he/she can edit any particular transaction.

Limitation and Future Extension

❖ *Application has lacks in terms of security aspects.*

❖ Future Enhancements

- *If an appropriate module for secure Notification identified or externally developed, then it shall be incorporated in the next version to notify particular user if his/her expense exited some limits.*
- *We can provide more facilities to user or advanced features.*
- *We can add print functionality in future for printing history of transaction.*
- *We can also provide good attractive GUI for the system.*

BIBLIOGRAPHY

For the successful implementation of this project we referred to many websites and books. The schema was designed by taking ideas from website like <https://docs.microsoft.com/>. We created ER Diagram on <https://erdplus.com/> website and developed Desktop application on visual studio 2015.

Reference Websites:

- <http://vbtutor.net>
- <https://docs.microsoft.com/>
- <https://www.tutorialspoint.com/>