



**slington college**  
(इस्लिङ्टन कलेज)

**Module Code & Module Title**

**CS6004NI Application Development**

**Assessment Weightage & Type**

**30% Individual Coursework 1 (Second Milestone)**

**Semester 2024 , Autumn**

**PROJECT TITLE: MoneyTrack**

**Student Name: Ashish Pradhan**

**London Met ID: 22068138**

**College ID: np01cp4a220484**

**Module Teacher : Abhishek Khadka**

**Assignment Due Date: 5<sup>th</sup> January 2025**

**Assignment Submission Date: 5<sup>th</sup> January, 2025**

**GitHub Repository Link : <https://github.com/Ashish-isme/MoneyTrack>**

**Word Count: 772**

*I confirm that I understand my coursework needs to be submitted online via MySecondTeacher under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded.*

# 22068138 Ashish Pradhan 4.docx

 Islington College, Nepal

## Document Details

Submission ID

trn:oid::3618:76633697

Submission Date

Jan 4, 2025, 8:27 PM GMT+5:45

Download Date

Jan 4, 2025, 8:29 PM GMT+5:45

File Name

22068138 Ashish Pradhan 4.docx

File Size

5.1 KB

8 Pages

772 Words

4,218 Characters



Page 1 of 11 - Cover Page

Submission ID trn:oid::3618:76633697







Page 2 of 11 - Integrity Overview

Submission ID trn:oid::3618:76633697




## 0% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

### Match Groups

-  **0 Not Cited or Quoted 0%**  
Matches with neither in-text citation nor quotation marks
-  **0 Missing Quotations 0%**  
Matches that are still very similar to source material
-  **0 Missing Citation 0%**  
Matches that have quotation marks, but no in-text citation
-  **0 Cited and Quoted 0%**  
Matches with in-text citation present, but no quotation marks

### Top Sources

- 0%  Internet sources
- 0%  Publications
- 0%  Submitted works (Student Papers)

### Integrity Flags

0 Integrity Flags for Review

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

## Table of Content

1. Introduction.....	1
2. Features list down of MoneyTrack.....	2
2.1 Cash Inflow/Outflow/Debt Tracking feature. ....	2
2.2 Clearing debts form inflows and highlighting pending debts feature. ....	3
2.3 Ability to add custom or existing tags to a transaction .....	5
2.4 Ability to add optionally a note to transaction. ....	6
2.5 Properly listing pending debts in the dashboard .....	6
2.6 Display of total inflow, outflows , debts and remaining debts.....	7
2.7 Display total number of transactions and total transactions. ....	7
2.8 Sufficient balance check for outflows. ....	8
2.9 Display of highest/lowest inflow, outflow and debt transactions.....	8
2.10 Filtering transactions by type, tags and date range.....	9
2.11 Sorting transaction by date.....	10

## Table of Figures

Figure 1 : Cash Inflow feature of the application. ....	2
Figure 2 : Cash Outflow feature of the application. ....	2
Figure 3 : Debt Adding feature of the application. ....	3
Figure 4 : Debts highlight and clearing feature of the application.....	3
Figure 5 : Debt clear option feature in the application.....	4
Figure 6 : Debt cleared in the application.....	4
Figure 7 : Adding custom or existing tag in transaction feature in the application. ....	5
Figure 8 : Tags successfully stored in the transaction. ....	5
Figure 9 : Adding optional note in transaction in the application.....	6
Figure 10 : Displaying pending debts in the application dashboard. ....	6
Figure 11 : Display of total inflows, outflows and debts in the application's dashboard. ....	7
Figure 12 : Displaying total number of transactions in total for the user. ....	7
Figure 13 : Checking for sufficient balance before cash outflows.....	8
Figure 14 : Displaying transaction list on the basis of highest and lowest order.....	8
Figure 15 : Filtering transaction list on the basis of dates.....	9
Figure 16 : Filtering transaction on the basis of tags/labels. ....	9
Figure 17 : Filtering data on the basis of transaction type.....	9
Figure 18 : Sorting transactions on the basis of dates. ....	10

## **1. Introduction**

This documentation serves as a part of the second milestone for the Application development coursework, which is focused on implementing at least 10 features in the personal expense tracking application. The application serves as platform to support every user to track their daily expense, manage budget and help with their transactions. Using .NET Core framework, the goal is to develop an application with enhance user experience, improved functionality and task efficiency.

In this particular milestone, various features have been integrated for user interaction or task with proper backend logics. The features implemented addresses key aspects of the application that will be crucial in data handling to real time updates and transaction management.

With pure focus on the backend operation and implementation of concepts such as Asynchronous programming, Dependency Injection, Service Lifetime, Lambda Expression and many more, 11 core feature of the application have been developed till the milestone. They are as follows :

- Cash Inflows/Outflows/Debt Tracking (i.e. credit, debit, Debt transactions)
- Sufficient balance check for outflows
- Clearing debt from inflows and highlighting pending debts
- Ability to add custom or existing tags/labels to a transaction
- Ability to add optionally a note to a transaction
- Filtering transactions by type, tags, and date range
- Sorting transactions by date
- Display total number of transactions and total transactions (inflows +debts - outflows)
- Display of total inflows, outflows, debt, cleared debt, remaining debt
- Display of highest/lowest inflow, outflow, and debt transactions
- Properly listing pending debts in the dashboard

## 2. Features list down of MoneyTrack.

### 2.1 Cash Inflow/Outflow/Debt Tracking feature.

- ‘AddCredit’ razor component build for adding cash inflow into the application.

The screenshot displays the 'Credit Management' section of the MoneyTrack application. The left sidebar contains navigation links: Home, Add Balance, Add Expense, Take Debt, and Transactions. The main content area shows a welcome message for 'Sweta Pradhan' and a current balance of '\$30,000.00'. Below this, there is a form to add a credit with fields for 'Credit Title' (Salary), 'Amount' (30000), 'Credit Date' (01/04/2025), 'Tags' (Others), and 'Remarks (Optional)' (Salary for month February). A blue 'Add Credit' button is present. A green message 'Credit added successfully!' is displayed below the button. At the bottom, there is a section for 'Your Credits' with a 'Sort By' dropdown set to 'Recent Date'.

Figure 1 : Cash Inflow feature of the application.

- “AddExpense” razor component build for adding cash outflow into the application.

The screenshot displays the 'Expense Management' section of the MoneyTrack application. The left sidebar contains navigation links: Home, Add Balance, Add Expense, Take Debt, and Transactions. The main content area shows a welcome message for 'Sweta Pradhan' and a current balance of '\$30,000.00'. Below this, there is a form to add an expense with fields for 'Expense Title' (Rent Payment), 'Amount' (15000), 'Expense Date' (12/19/2024), 'Tags' (Family Expense), and 'Remarks (Optional)' (For month January). A blue 'Add Expense' button is present. At the bottom, there is a section for 'Your Expenses' with a 'Sort By' dropdown set to 'Recent Date'.

Figure 2 : Cash Outflow feature of the application.

- “TakeDebt” razor component build for adding Debt into the application.

**MoneyTrack**

Home

Add Balance

Add Expense

**Take Debt**

Transactions

About

### Debt Management

Welcome, Sweta Pradhan!

Your Current Balance: \$15,000.00

Debt Title:

Amount:

Debt Date:

Tags:

Remarks:

#### Your Debts

Title	Amount	Date	Tags	Remarks	Actions
Loan from mom	\$5,000.00	1/1/2025	Family Expense	Loan form mom	<input type="button" value="Clear Debt"/>

Figure 3 : Debt Adding feature of the application.

## 2.2 Clearing debts form inflows and highlighting pending debts feature.

- Once the debts are shown it is highlighted as shown below:

**Take Debt**

Transactions

Debt Date:

Tags:

Remarks:

#### Your Debts

Title	Amount	Date	Tags	Remarks	Actions
Loan from mom	\$5,000.00	1/1/2025	Family Expense	Loan form mom	<input type="button" value="Clear Debt"/>
Loan	\$7,000.00	1/5/2025	Lend/Borrow	Loan from father	<input type="button" value="Clear Debt"/>

Figure 4 : Debts highlight and clearing feature of the application.

- Once the user has sufficient balance form inflow (Current Balance > Debt Payment Amount ) , they can pay the debt easily.

[Add Debt]

Your Debts

Title	Amount	Date	Tags	Remarks	Actions
Loan from mom	\$5,000.00	1/1/2025	Family Expense	Loan form mom	Clear Debt
Loan	\$7,000.00	1/5/2025	Lend/Borrow	Loan from father	Clear Debt

Figure 5 : Debt clear option feature in the application.

[Add Debt]

Your Debts

Title	Amount	Date	Tags	Remarks	Actions
Loan from mom	\$5,000.00	1/1/2025	Family Expense	Loan form mom	Clear Debt

Recent Debt Cleared

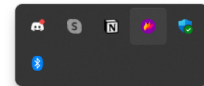


Figure 6 : Debt cleared in the application.



### 2.3 Ability to add custom or existing tags to a transaction

- There are existing and custom tags/label for any transaction type.

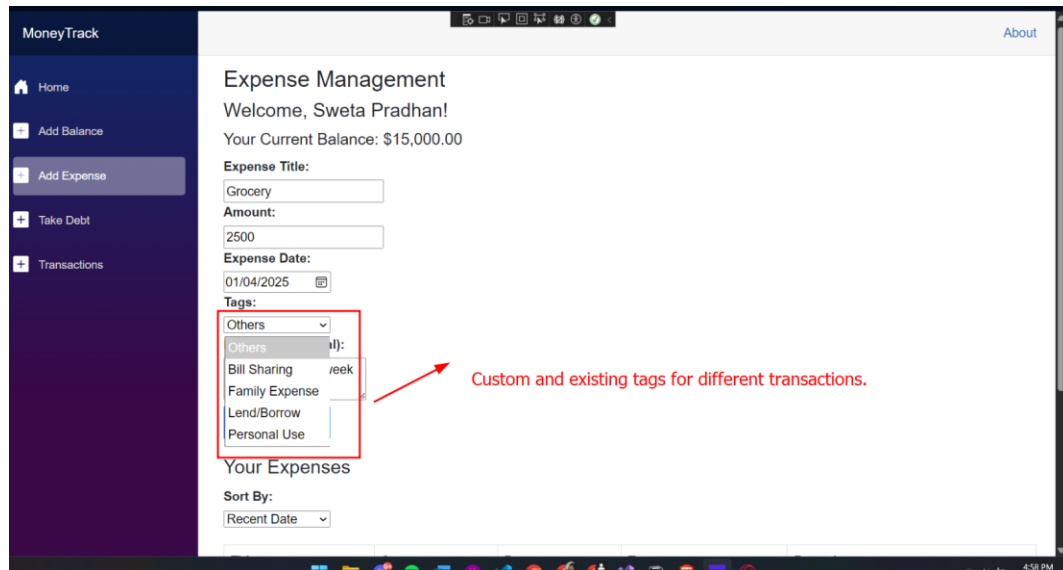


Figure 7 : Adding custom or existing tag in transaction feature in the application.

- The tags are assigned and stored to the transaction accordingly.

Sort By: Recent Date ▼

Title	Amount	Date	Tags	Remarks
New Fridge	\$80,000.00	1/4/2025	Expense	Buying a fridge for home.
Tshirt	\$25,000.00	1/4/2025	Expense	For tshirt
300	\$3,000.00	1/4/2025	Expense	Food
Chocolate	\$50.00	1/4/2025	Personal Use	N/A

Figure 8 : Tags successfully stored in the transaction.

## 2.4 Ability to add optionally a note to transaction.

- Every user can add an optional remark or note to any transaction for further detailing and information.

0

Expense Date:

01/04/2025

Tags:

Others

Remarks (Optional):

Add Expense

Your Expenses

Sort By:

Figure 9 : Adding optional note in transaction in the application

## 2.5 Properly listing pending debts in the dashboard

- After adding a new debt transaction, all new pending debts are displayed in the application's dashboard.

MoneyTrack

Home

Add Balance

Add Expense

Take Debt

Transactions

Dashboard

Current Balance: \$18,500.00

Total Inflows  
\$166,000.00

Total Outflows  
\$126,250.00

Total Debts  
\$8,500.00

Pending Debts

Debt Title	Amount	Due Date	Status
Loan from mom	\$5,000.00	1/1/2025	Pending
Loan	\$3,500.00	1/4/2025	Pending

Figure 10 : Displaying pending debts in the application dashboard.

## 2.6 Display of total inflow, outflows , debts and remaining debts.

- The following details are shown in the dashboard :

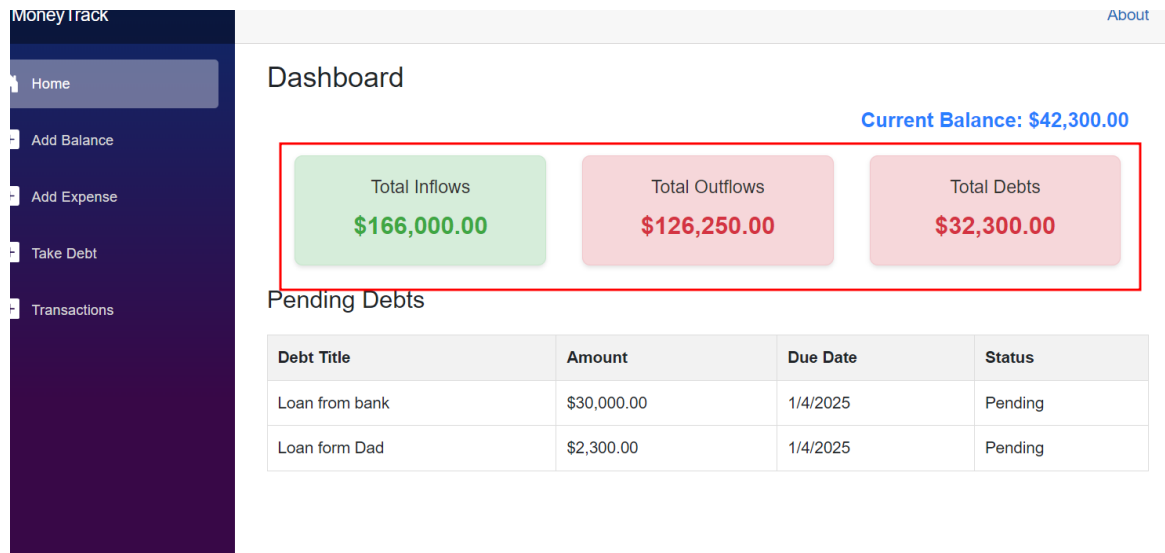


Figure 11 : Display of total inflows, outflows and debts in the application's dashboard.

## 2.7 Display total number of transactions and total transactions.

- The total transaction is displayed through the “CalculateTotalTransactions()” method. It can be displayed in razor component as below :

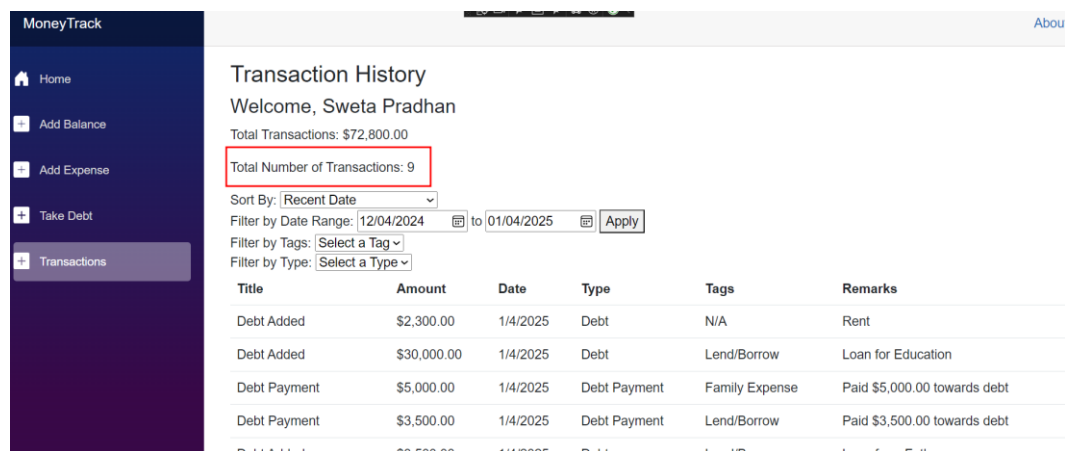
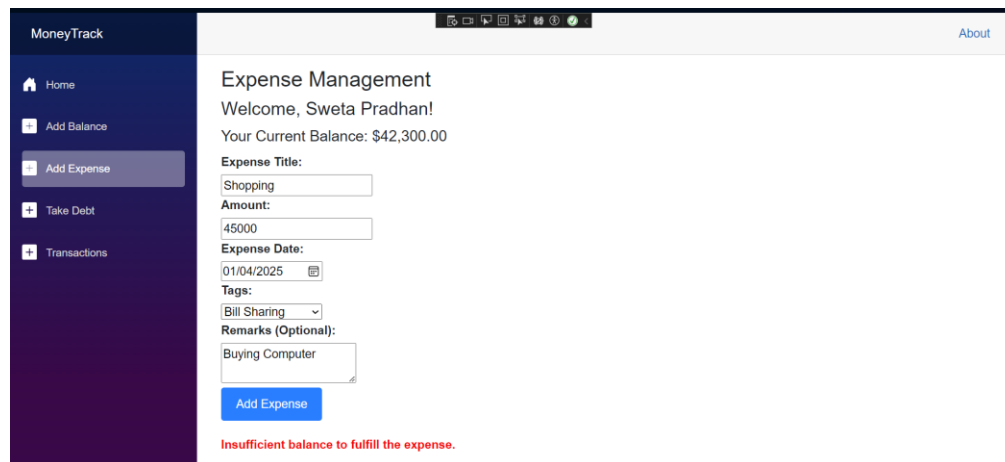


Figure 12 : Displaying total number of transactions in total for the user.

## 2.8 Sufficient balance check for outflows.

- Entering the details for entering a new cash outflow. Here the Outflow amount is greater than the available balance. Thus, the sufficient balance is checked appropriate message is displayed.



**MoneyTrack**

Expense Management

Welcome, Sweta Pradhan!

Your Current Balance: \$42,300.00

Expense Title: Shopping

Amount: 45000

Expense Date: 01/04/2025

Tags: Bill Sharing

Remarks (Optional): Buying Computer

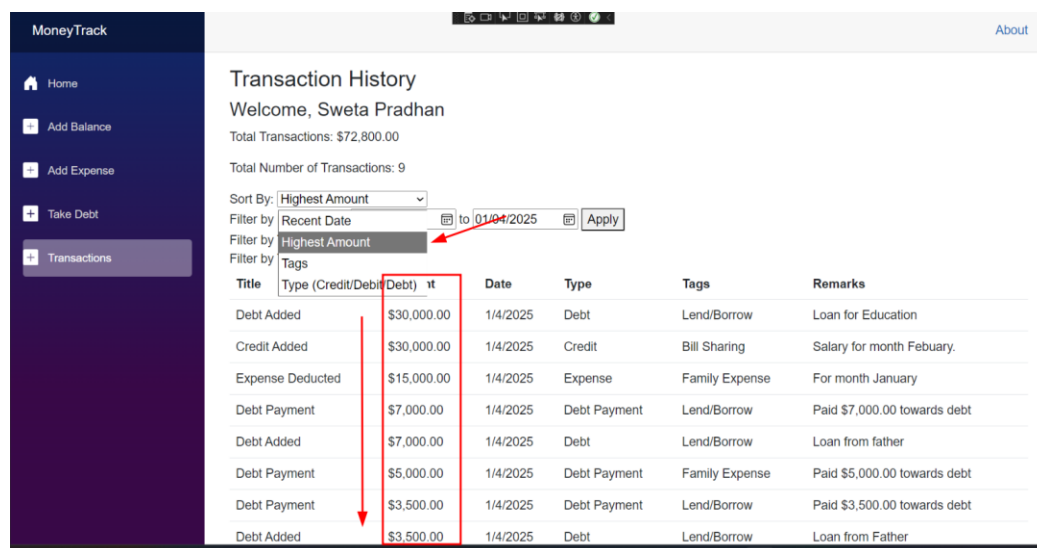
Add Expense

Insufficient balance to fulfill the expense.

Figure 13 : Checking for sufficient balance before cash outflows.

## 2.9 Display of highest/lowest inflow, outflow and debt transactions.

- Here, the data for the transaction can be filtered according to the highest and lowest (and vice versa) amount :



**MoneyTrack**

Transaction History

Welcome, Sweta Pradhan

Total Transactions: \$72,800.00

Total Number of Transactions: 9

Sort By: Highest Amount

Filter by: Recent Date to 01/04/2025 Apply

Filter by: Highest Amount

Filter by: Tags

Title	Type (Credit/Debit)	Amount	Date	Type	Tags	Remarks
Debt Added	Debit	\$30,000.00	1/4/2025	Debt	Lend/Borrow	Loan for Education
Credit Added	Credit	\$30,000.00	1/4/2025	Credit	Bill Sharing	Salary for month February.
Expense Deducted	Expense	\$15,000.00	1/4/2025	Expense	Family Expense	For month January
Debt Payment	Debt Payment	\$7,000.00	1/4/2025	Debt Payment	Lend/Borrow	Paid \$7,000.00 towards debt
Debt Added	Debt	\$7,000.00	1/4/2025	Debt	Lend/Borrow	Loan from father
Debt Payment	Debt Payment	\$5,000.00	1/4/2025	Debt Payment	Family Expense	Paid \$5,000.00 towards debt
Debt Payment	Debt Payment	\$3,500.00	1/4/2025	Debt Payment	Lend/Borrow	Paid \$3,500.00 towards debt
Debt Added	Debt	\$3,500.00	1/4/2025	Debt	Lend/Borrow	Loan from Father

Figure 14 : Displaying transaction list on the basis of highest and lowest order.

## 2.10 Filtering transactions by type, tags and date range

- The transactions can be filtered according to types of transactions, tags and date range .
- According to the dates .

Welcome, Sweta Pradhan

Total Transactions: \$72,800.00

Total Number of Transactions: 9

Sort By: Recent Date

Filter by Date Range: 12/04/2024 to 01/04/2025 Apply

Filter by Tags: Select a Tag

Filter by Type: Select a Type

Title	Amount	Date	Type	Tags	Remarks
Debt Added	\$2,300.00	1/4/2025	Debt	N/A	Rent
Debt Added	\$30,000.00	1/4/2025	Debt	Lend/Borrow	Loan for Education
Debt Payment	\$5,000.00	1/4/2025	Debt Payment	Family Expense	Paid \$5,000.00 towards debt
Debt Payment	\$3,500.00	1/4/2025	Debt Payment	Lend/Borrow	Paid \$3,500.00 towards debt
Debt Added	\$3,500.00	1/4/2025	Debt	Lend/Borrow	Loan from Father
Debt Payment	\$7,000.00	1/4/2025	Debt Payment	Lend/Borrow	Paid \$7,000.00 towards debt
Debt Added	\$7,000.00	1/4/2025	Debt	Lend/Borrow	Loan from father

Figure 15 : Filtering transaction list on the basis of dates.

- According to the tags

Add Expense

Take Debt

Transactions

Total Number of Transactions: 10

Sort By: Recent Date

Filter by Date Range: 12/04/2024 to 01/04/2025 Apply

Filter by Tags: Select a Tag

Filter by Type: Select a Tag

Title	Amount	Date	Type	Tags	Remarks
Salary					
Bonus	2,000.00	1/4/2025	Expense	N/A	For birthday party
Expense Ded					
Investment					
Debt Added	2,300.00	1/4/2025	Debt	N/A	Rent

Figure 16 : Filtering transaction on the basis of tags/labels.

- According to the transaction type.

Take Debt

Transactions

Sort by: Recent Date

Filter by Date Range: 12/04/2024 to 01/04/2025 Apply

Filter by Tags: Select a Tag

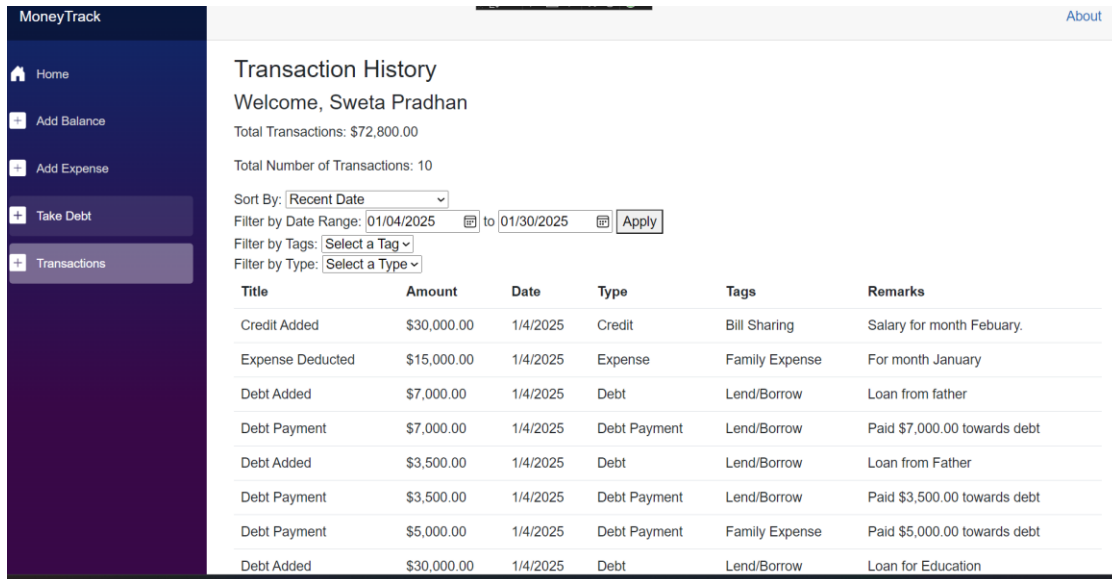
Filter by Type: Debt

Title	Amount	Date	Type	Tags	Remarks
Debt Added	\$2,300.00	1/4/2025	Debt	N/A	Rent
Debt Added	\$30,000.00	1/4/2025	Debt	Lend/Borrow	Loan for Education
Debt Added	\$3,500.00	1/4/2025	Debt	Lend/Borrow	Loan from Father
Debt Added	\$7,000.00	1/4/2025	Debt	Lend/Borrow	Loan from father

Figure 17 : Filtering data on the basis of transaction type.

## 2.11 Sorting transaction by date.

- Transactions can be sorted accordingly by specifying the “from” and “to” date .



**MoneyTrack** About

**Transaction History**  
 Welcome, Sweta Pradhan  
 Total Transactions: \$72,800.00  
 Total Number of Transactions: 10

Sort By: Recent Date ▼  
 Filter by Date Range: 01/04/2025 to 01/30/2025 Apply  
 Filter by Tags: Select a Tag ▼  
 Filter by Type: Select a Type ▼

Title	Amount	Date	Type	Tags	Remarks
Credit Added	\$30,000.00	1/4/2025	Credit	Bill Sharing	Salary for month Febuary.
Expense Deducted	\$15,000.00	1/4/2025	Expense	Family Expense	For month January
Debt Added	\$7,000.00	1/4/2025	Debt	Lend/Borrow	Loan from father
Debt Payment	\$7,000.00	1/4/2025	Debt Payment	Lend/Borrow	Paid \$7,000.00 towards debt
Debt Added	\$3,500.00	1/4/2025	Debt	Lend/Borrow	Loan from Father
Debt Payment	\$3,500.00	1/4/2025	Debt Payment	Lend/Borrow	Paid \$3,500.00 towards debt
Debt Payment	\$5,000.00	1/4/2025	Debt Payment	Family Expense	Paid \$5,000.00 towards debt
Debt Added	\$30,000.00	1/4/2025	Debt	Lend/Borrow	Loan for Education

Figure 18 : Sorting transactions on the basis of dates.