

# Bank Account Management

- Problem statement

The client needs an application to manage their bank account. The application will help the client to manage all the transactions on their bank account in a certain month.

- Feature list

1. Add a new transaction into the list
2. Modify transactions from the list
3. Return transactions that have certain properties
4. Return different characteristics of transactions
5. Filter transactions
6. Undo the last operation

- Iteration plan

1. Features 1-2
2. Features 3-4
3. Features 5-6

- Usage scenarios

Adding a new transaction in the current day to the list

User Input	Result	Comments
	Main Menu	
1	"New transaction" sub-menu	
1	Please insert value	
Transaction Value	Insert transaction type	
Transaction Type	Insert description	Type can be in or out
Transaction Description	The transaction is added	If there was an error, it would print out what went wrong

#### Adding a new transaction in another day

User Input	Result	Comments
	Main Menu	
1	"New transaction" sub-menu	
2	Please insert value	
Transaction Day	Insert transaction value	
Transaction Value	Insert transaction type	
Transaction Type	Insert description	Type can be in or out
Transaction Description	The transaction is added	If there was an error, it would print out what went wrong

#### Remove all the transactions in a day

User Input	Result	Comments
	Main Menu	
2	Modify transactions sub-menu	
1	Please enter the query	The query can be a day, a transaction type (in or out) or an interval of days (using from and to)
Transaction Day	Transactions are removed	If there was an error, it would print out what went wrong

Replace the value of a transaction

User Input	Result	Comments
	Main Menu	
2	Modify transactions sub-menu	
2	Please enter the day	
Transaction Day	Please enter the type	
Transaction Type	Please enter the description	
Transaction Description	Please enter the new value	
New Value	Transaction value will be modified	If there was an error, it would print out what went wrong

Show the entire list of transactions

User Input	Result	Comments
	Main Menu	
3	"View transactions" sub-menu	
1	Returns the transaction list	Transactions will be formatted as: Day: x   Value: x   Type: x   Description: x

Show all the transactions of a given type

User Input	Result	Comments
	Main Menu	
3	"View transactions" sub-menu	
2	Please enter the type	
Transaction type	Returns transactions	Transactions will be formatted as: Day: x   Value: x   Type: x   Description: x

Show all the transactions with a value less then a given value

User Input	Result	Comments
	Main Menu	
3	"View transactions" sub-menu	
3	Please enter your query	The query is of the form: greater/less than VALUE [before/after] [DAY]
less than value	Returns transactions	Transactions will be formatted as: Day: x   Value: x   Type: x   Description: x

Calculate the sum of all the transactions of the same type

User Input	Result	Comments
	Main Menu	
4	"Calculate" sub- menu	
1	Please enter the type	
Transaction Type	Returns the result	

Calculate the day with the maximum value of a given type

User Input	Result	Comments
	Main Menu	
4	"Calculate" sub- menu	
2	Please enter the type	
Transaction Type	Returns the result	

Remove all the transactions which are not of a given type

User Input	Result	Comments
	Main Menu	
5	"Filter" sub-menu	
1	Please enter the type	
Transaction Type	Filters the transactions	

Undo the last operation

User Input	Result	Comments
	Main Menu	
6	Undo last operation	If no operation was made then it prints this out

After each operation, the application returns to the sub-menu it was at before. To go back to the main menu or to exit the application the user must input "x"

- Tasks

T1: Implement a user interface

T2: Implement adding a transaction in the current day

T3: Implement adding a transaction in another day

T4: Implement removal of transactions

T5: Implement transaction modification

T6: Implement printing out all the transactions

T7: Implement printing out transactions based on their properties

T8: Implement the sum of transactions of a given type

T9: Implement printing of the day with the maximum value of a given transaction type

T10: Implement transaction filtering

T11: Implement an undo feature