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CSC-284-WB  
02/19/2024**

Final Project UML

**Header file: user.h  
Implementation file: user.cpp**  
class User { //Represents the users of the system.  
 -username: string

-password: string

+login()// Login method

+logout()// Logout method

}

**Header file: expense.h**

**Implementation file: expense.cpp**

class Expense { //Represents the expenses entered by users

-date: date

-category: string

-subcategory: string

-amount: float

-balance: float

+addExpense() //adding an expense

+displayBalanceSheet() //displaying balance sheet

+displayCategoryExpenses()//displaying category expenses

}

**Header file: database.h  
Implementation file: database.cpp**

class Database {

+saveExpense()/ / Implementation of saving expense to database

+retrieveExpenses() // Implementation of retrieving expenses from database

+saveUser() // Implementation of saving user to database

+retrieveUser() // Implementation of retrieving user from database

}  
**Header file:TestApp.h**

**Implementation file:TestApp.cpp**

class TestApp {

-users: vector<User>

-expenses: vector<Expense>

-database: Database

+run()  
//Run logic

// interact with users, expenses, and the database

// perform various operations as required.

// For example: adding expenses, displaying reports, etc.

}