Project Report Analysis

Project Name: Finance Tracker website

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Module Specifications:

We have 4 main modules:

- User
- Budget
- Category
- SubCategory
- Transaction

Each module includes 3 main layers:

- Model (Entity)
- DAO/Repository (Persistence Layer)
- Controller (Business/API Layer)

User:

Module	Class	Responsibilities	Important Methods (Expected)
User	User.java	Entity class for users	Getters/Setters, toString(), constructors
	UserDao.java	Service class for business logic	<pre>saveUser() , updateUser() , deleteUser() , getUserById() , getAllUsers()</pre>
	UserRepository.java	Interface to interact with DB	Auto CRUD methods from JpaRepository
	UserController.java	REST endpoints for users	<pre>/addUser , /updateUser , /getUser/{id} , /getAllUsers</pre>

Category:

Module	Class	Responsibilities	Important Methods (Expected)
Category	Category.java	Entity class for categories	Getters/Setters, constructors
	CategoryDao.java	Business logic for categories	<pre>saveCategory() , updateCategory() , deleteCategory() getCategoryById() , getAllCategories()</pre>
	CategoryRepository.java	DB interaction	Auto CRUD methods
	CategoryController.java	API for categories	<pre>/addCategory , /updateCategory , /deleteCategory , /getCategory/{id} , /getAllCategories</pre>

Budget:

Module	Class	Responsibilities	Important Methods (Expected)
Budget	Budget.java	Entity class for budget entries	Getters/Setters, constructors
	BudgetDao.java	Business logic for budgets	<pre>saveBudget() , updateBudget() , deleteBudget() , getBudgetById() , getAllBudgets()</pre>
	BudgetRepository.java	DB interaction	Auto CRUD methods
	BudgetController.java	API for budgets	<pre>/addBudget , /updateBudget , /deleteBudget , /getBudget/{id} , /getAllBudgets</pre>

SubCategory:

Module	Class	Responsibilities	Important Methods (Expected)
SubCategory	SubCategory.java	Entity class for subcategories	Getters/Setters, constructors
	SubCategoryDao.java	Business logic for subcategories	<pre>saveSubCategory() , updateSubCategory() , deleteSubCategory() , getSubCategoryById() , getAllSubCategories()</pre>
	SubCategoryRepository.java	DB interaction	Auto CRUD methods
	SubCategoryController.java	API for subcategories	<pre>/addSubCategory , /updateSubCategory , /deleteSubCategory , /getSubCategory/{id} , /getAllSubCategories</pre>

Transaction:

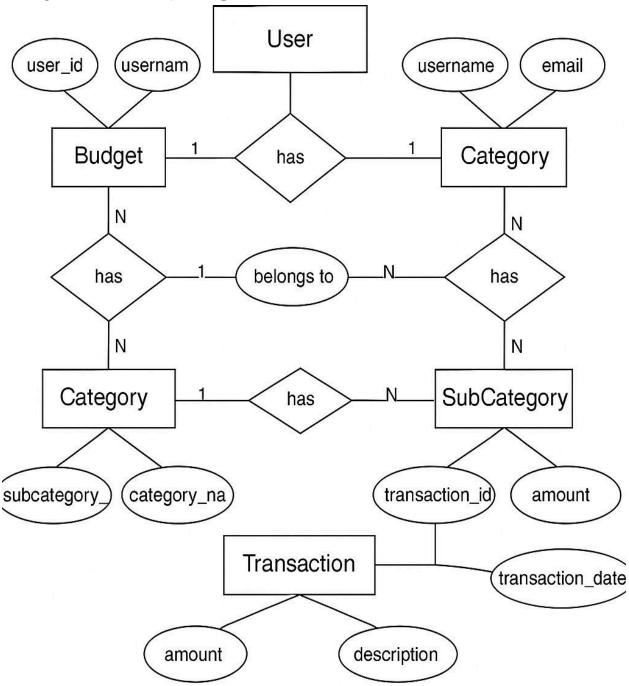
Module	Class	Responsibilities	Important Methods (Expected)
Transaction	Transaction.java	Entity class for financial transactions	Getters/Setters, constructors
	TransactionDao.java	Business logic for transactions	<pre>saveTransaction() , updateTransaction() , deleteTransaction() , getTransactionById() , getAllTransactions()</pre>
	TransactionRepository.java	DB interaction	Auto CRUD methods
	TransactionController.java	API for transactions	<pre>/addTransaction , /updateTransaction , /deleteTransaction , /getTransaction/{id} , /getAllTransactions</pre>

Common Functionalities across Modules

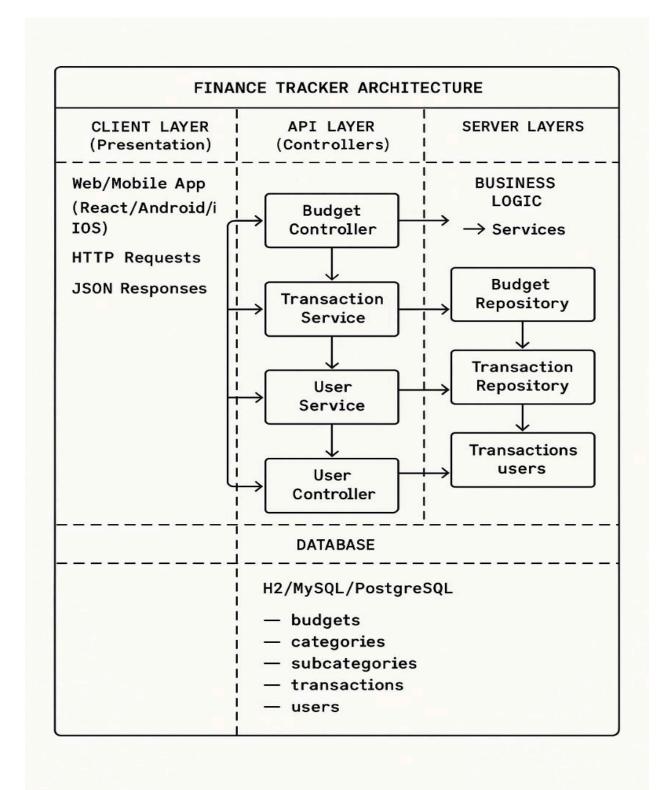
Each module mostly follows this pattern:

- Save (POST)
- Update (PUT)
- Delete (DELETE)
- Get by ID (GET)
- Get all (GET)

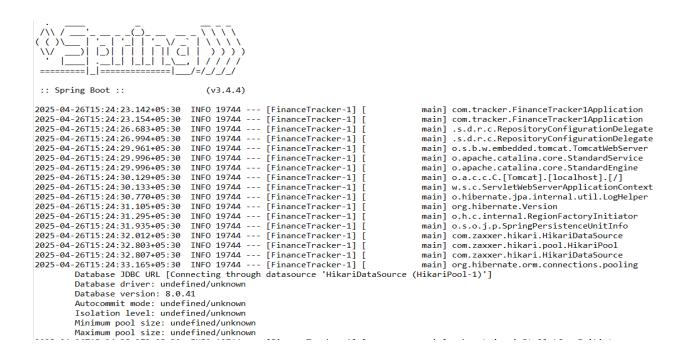
Entity Relationship Diagram:

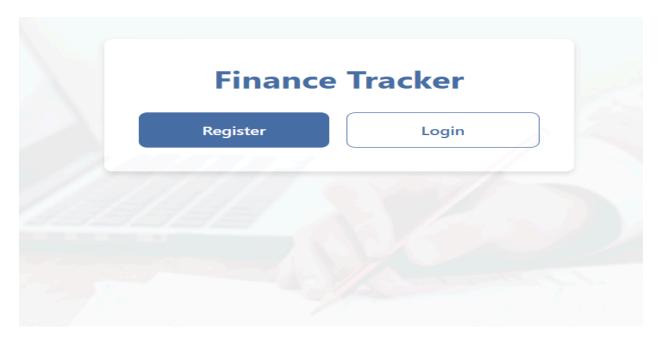


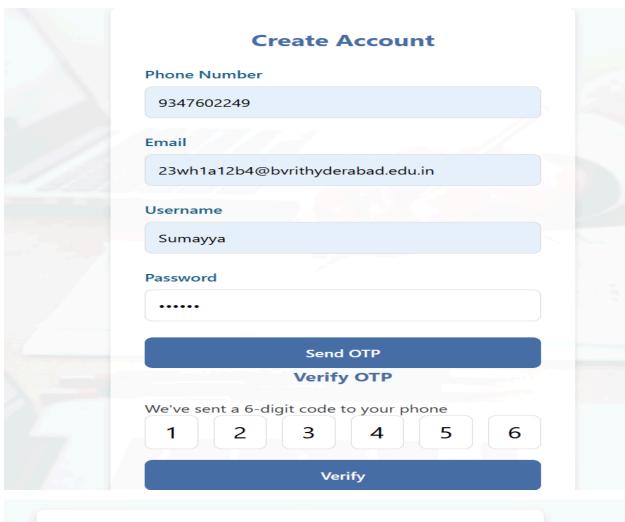
Data Flow Diagram:



OUTPUT:







Total Amount (\$)	
12000000	
Minimum Amount t	to Maintain (\$)
1234	

Budget Summary

Total Amount: \$12000000.00

Minimum Amount: \$1234.00

Available to Spend: \$11998766.00

Proceed to Categories

Select Category Food Transport Shopping Bills Other

New Entertainment Expense (Movies) Available: \$12000000.00 Amount (\$) 3453 Date 26-04-2025 Description (Optional) Add Expense Back

