User: Individuals

**Budget Manager**

**Login and logout**

· User can log in and log out.

· If it is a new user, then must register to user the app.

**Expenses**

· User can track how much they spend on the items or their expenses.

· Add expenses.

· Delete expenses.

· Edit Expenses.

· Categorise their expenses(rent , miscellaneous , food ).

**Earnings**

· User can add expenses.

· Delete expenses.

· Edit expenses.

In the home page it should show the total earnings, Total amount spent, and the Total amount left after all the spendings.

A person wants to track their expense and they uses budget manager web application. If they are a new user they first need to register(register), and then they can log in (log in) with their unique username and password. To get started, the new user needs to add their income(addIncome) and their earnings(addEarnings) in the earnings page, then they can view earnings (viewEarnings) in the expenses page. Once they add their earnings and the expenses, they can view their total amount spent(viewAmountSpent) and the total amount left after all their spendings in the home page. Then if the user wants to add more expense or edit any of the expenses (add, edit expenses) it can add in the expenses page. This page will also show how much money they have left in total. If they want to add more earnings or want to update the earnings, it can be done using the earnings page. Once they are all done with their budget managements, they can log out. User can view their monthly expenses.

**Earnings**

**RequestEarning //parameter => post (add/create) , put (edit)**

earnings\_id int

earnings\_amount float

earnings\_description string

earnings\_date datetime

earnings\_category\_id int

**ResponseEarning**

is\_Sucess boolean

Message String

Result Generic[P]

**Tables**

User, Earnings, Expenses, ExpensesCategory , EarningsCategory.

**User:**

**•** user\_id int (pk)

• username (varchar (20))

• password (varchar (20))

**•** email varchar (20)

**Earning**

**•** earning\_id int (pk)

• earning\_amount (float)

• earning\_description (text)

• earning\_date (datetime)

• earning\_category\_id (fk)

• user\_id (fk)

**EarningCategory**

**•** earning\_category\_id (pk)

• earning\_name varchar(30)

**Expense**

**•** expense\_id (pk)

• expense\_amount (float 50)

• expense\_description (text 20)

• expense\_date(datetime)

• expense\_category\_id (fk)

• user\_id (fk)

**ExpenseCategory**

**•** expense\_category\_id (pk)

• expense\_name (varchar(30)

**Method**

**Public ResponseEarning addEarning(RequestEanrning request )**

**{**

**}**

**Public ResponseEarning getEarning(string earnings\_id)**

**{**

**}**

**Public ResponseEarning getEarnings(string earnings\_id)**

**{**

**}**

**Public ResponseEarning editEarning(RequestEanrning request)**

**{**

**}**

**Public ResponseEarning deleteEarning(string earning\_id)**

**{**

**}**

**Public ResponseEarning deleteAllUserEarning( String user\_id)**

**{**

**}**

**Expense**

**RequestExpense parameters //** post (add) , put (edit)

**ResponseExpense**

is\_Sucess boolean

Message String

Result Generic[P]

**Public ResponseExpense addExpense(RequestExpense request){**

**}**

**Public responseExpense getExpense(String expense\_id){**

**}**

**Public responseExpense getExpenses(String user\_id){**

**}**

**Public ResponseExpense editExpense(RequestExpense request){**

**}**

**Public ResponseExpense deleteExpense(String expense\_id){**

**}**

**Public ResponseExpense deleteAllUserExpense( String user\_id) {**

**}**

**public double getAllBudget(string user\_id, int month,int year) { //monthly**

**Return totalRemainingAmount**

**}**