

Personal Expense Tracker - FinTrack

Project Documentation

Database Design:

1. Table Name: USER_ACC, Primary Key: USER_ID

USER_ACC											
Table	Data	Indexes	Model	Constraints	Grants	Statistics	UI Defaults	Triggers	Dependencies	SQL	REST
<div>Add Column</div> <div>Modify Column</div> <div>Rename Column</div> <div>Drop Column</div> <div>Rename</div> <div>Copy</div> <div>Drop</div> <div>Truncate</div> <div>Create Lookup Table</div>											
Column Name				Data Type				Nullable			
USER_ID				NUMBER(15,0)				No			
FIRST_NAME				VARCHAR2(15)				No			
LAST_NAME				VARCHAR2(15)				Yes			
USERNAME				VARCHAR2(15)				No			
EMAIL				VARCHAR2(30)				No			
PASSWORD				VARCHAR2(30)				No			
WALLET_NAME				VARCHAR2(20)				No			
MONTHLY_LIMIT				NUMBER(10,2)				No			

2. Table Name: EXPENDITURE, Primary Key: EXPENSE_ID, Foreign Key: USER_ID(from USER_ACC)

EXPENDITURE											
Table	Data	Indexes	Model	Constraints	Grants	Statistics	UI Defaults	Triggers	Dependencies	SQL	REST
<div>Add Column</div> <div>Modify Column</div> <div>Rename Column</div> <div>Drop Column</div> <div>Rename</div> <div>Copy</div> <div>Drop</div> <div>Truncate</div> <div>Create Lookup Table</div>											
Column Name				Data Type				Nullable			
EXPENSE_ID				NUMBER(15,0)				No			
USER_ID				NUMBER(15,0)				No			
EDATE				DATE				No			
DESCRIPTION				VARCHAR2(30)				Yes			
AMOUNT				NUMBER(10,2)				No			
CATEGORY				VARCHAR2(15)				Yes			

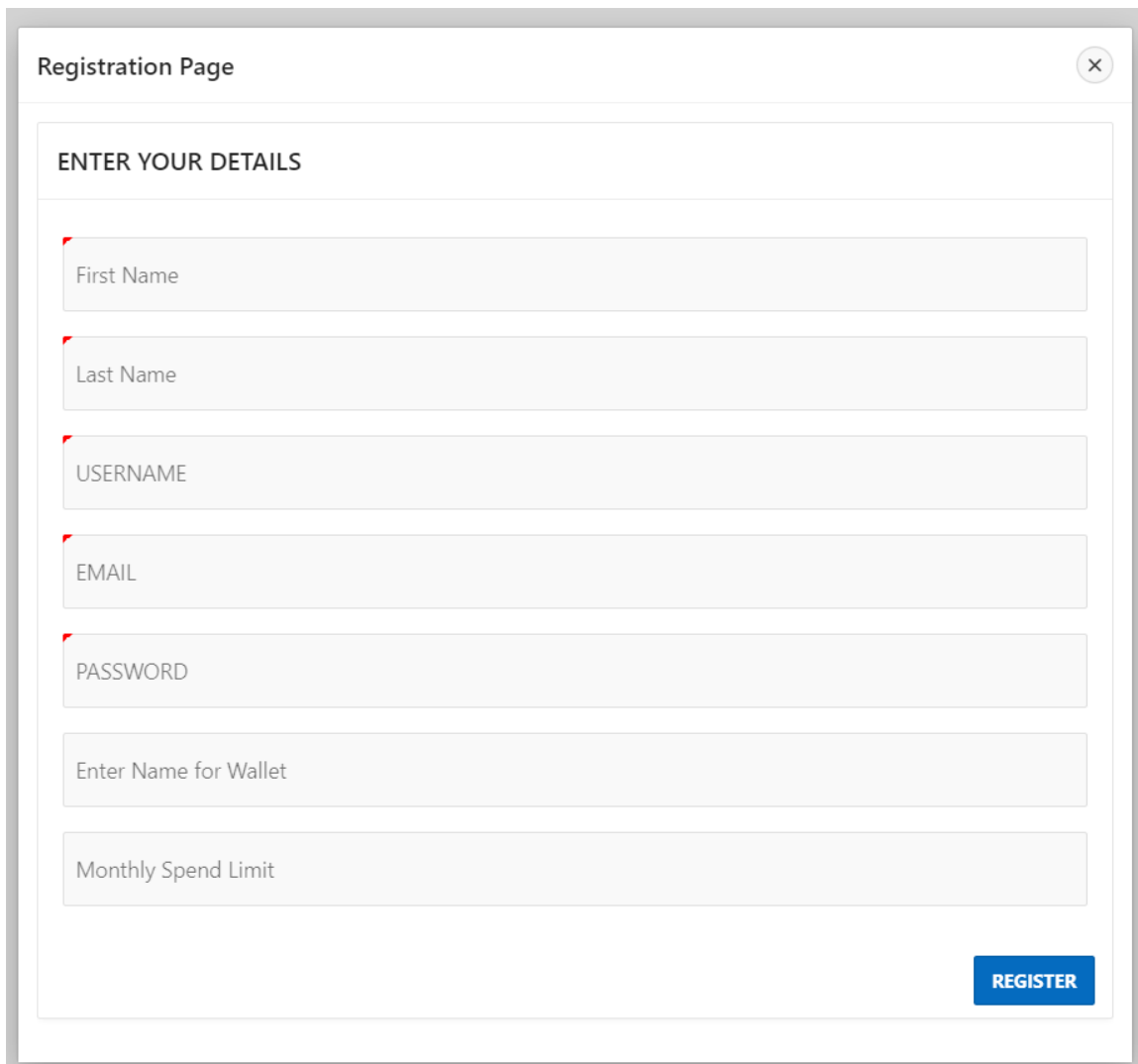
3. Table Name: INCOME, Primary Key: INCOME_ID, Foreign Key: USER_ID(from USER_ACC)

INCOME											
Table	Data	Indexes	Model	Constraints	Grants	Statistics	UI Defaults	Triggers	Dependencies	SQL	REST
<div>Add ColumnModify ColumnRename ColumnDrop ColumnRenameCopyDropTruncateCreate Lookup Table</div>											
Column Name				Data Type			Nullable				
INCOME_ID				NUMBER(15,0)			No			-	
USER_ID				NUMBER(15,0)			No			-	
IDATE				DATE			No			-	
CATEGORY				VARCHAR2(15)			Yes			-	
DESCRIPTION				VARCHAR2(30)			Yes			-	
AMOUNT				NUMBER(10,2)			No			-	

USER_ACC table is used to store the details of users who registered on the application platform. INCOME table is used by users to add any income received by them and the Expenditure table is used to store all the expenses made by the user. The primary keys for all three tables are populated from different sequences.

Application Overview:

Registration Page:



The image shows a modal dialog box titled "Registration Page" with a close button (X) in the top right corner. The dialog contains a form with the heading "ENTER YOUR DETAILS". The form has seven input fields, each with a red validation icon in the top left corner: "First Name", "Last Name", "USERNAME", "EMAIL", "PASSWORD", "Enter Name for Wallet", and "Monthly Spend Limit". A blue "REGISTER" button is located at the bottom right of the form.

Registration Page

ENTER YOUR DETAILS

First Name

Last Name

USERNAME

EMAIL

PASSWORD

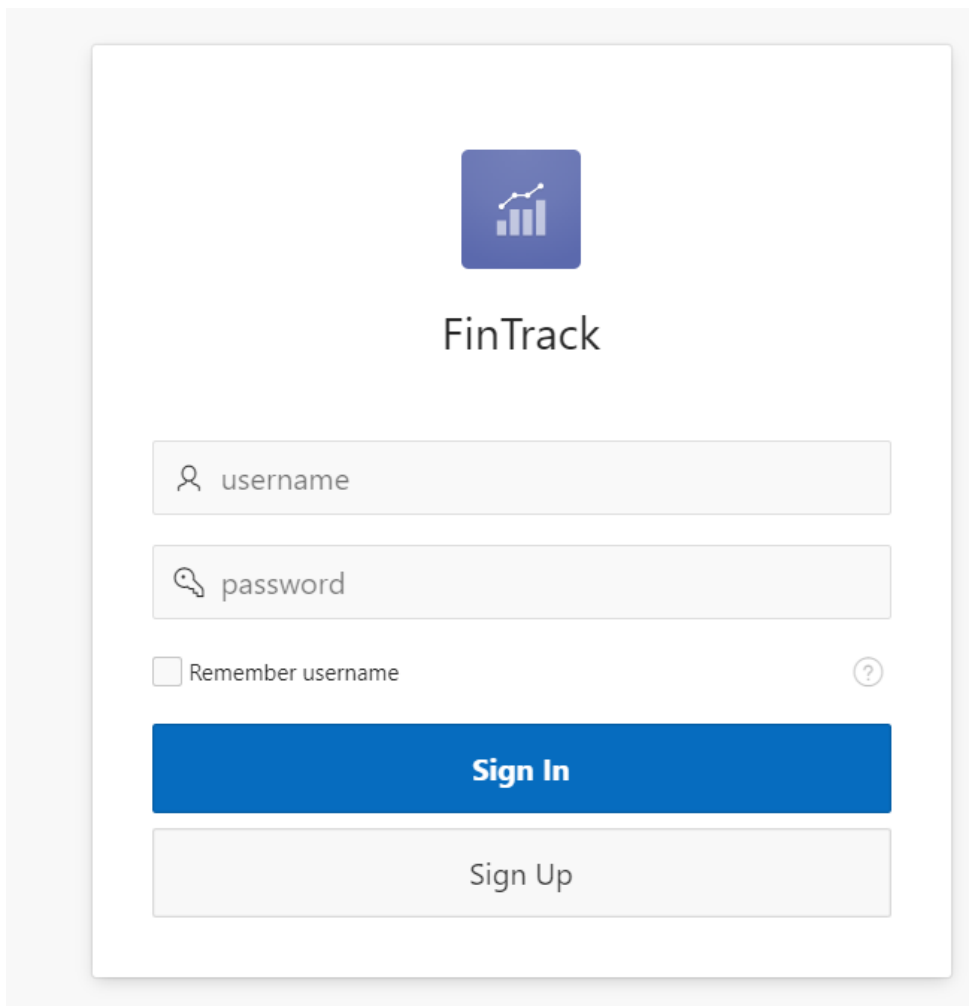
Enter Name for Wallet

Monthly Spend Limit

REGISTER

The sign up button on the login page launches the registration page as a modal dialog box. Here the user can enter details like name, username, email, password and wallet details. Username and email must be unique for each registered users which is verified using the various field validations. Once the user clicks on the register button, his details are entered into the USER_ACC table and he is registered to use the application. Here, the user is also asked to set a monthly expenditure limit for his expenses and is alerted whenever that limit is crossed via email.

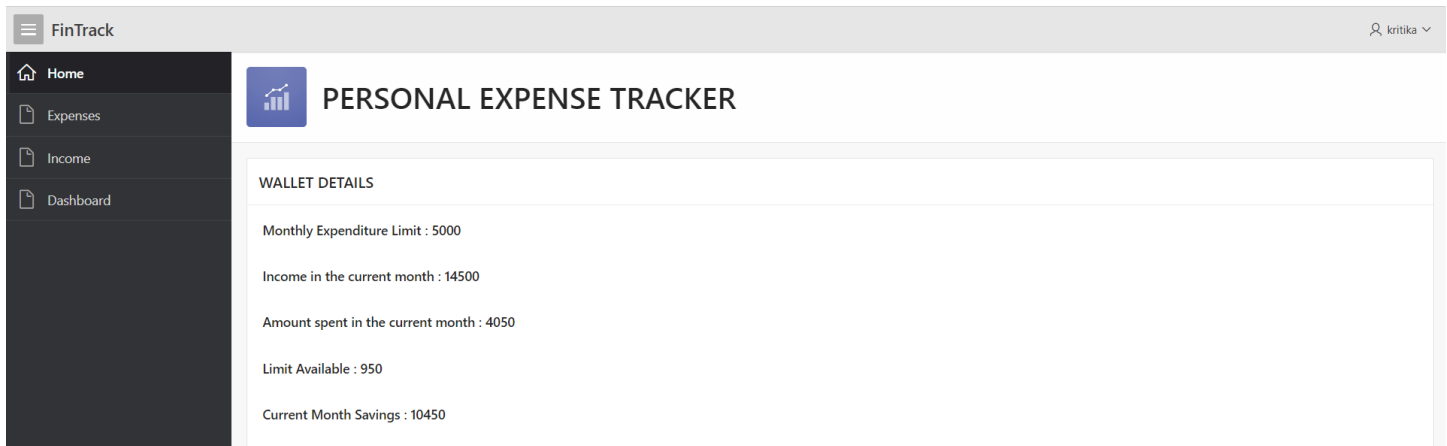
Login Page:



The image shows a login page for an application named "FinTrack". At the top center is a blue square icon with a white bar chart and an upward-pointing arrow. Below the icon is the text "FinTrack" in a large, black, sans-serif font. Underneath the text are two input fields. The first field is labeled "username" with a small person icon to its left. The second field is labeled "password" with a small key icon to its left. Below these fields is a checkbox labeled "Remember username" and a small circular help icon with a question mark. At the bottom of the form are two buttons: a blue button with the text "Sign In" and a light gray button with the text "Sign Up".

Users can login to the application by filling in their username and password. When the sign in button is clicked, the values entered in the username and password field are validated against data entered in the USER_ACC table. If the values entered are valid, a session is created and the user is logged into the application. Otherwise, a login error message is displayed on the same page. In the process of logging in, three application items are created. First is the login message, which stores the status of login, second is the session_user_name which stores the username of the user in the session, and the last one is session_email which stores the email address of the user.

Home Page or wallet page:



This is the first page the user sees after logging in. This page displays the user's wallet information. The expenditure limit which is set by the user while registering is displayed. Total income generated in the current month is calculated and displayed. Total expenditure for the current month is also calculated and displayed to the user in the same region. The limit available is calculated by deducting expenditure and savings are calculated by subtracting expenditure from income for the current month. The home page is designed to give a quick view of the current financial status of the user for the ongoing month.

Expenses Page:

FinTrack

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Home

Expenses

Income

Dashboard

Home \

Expenses

Q

Go

Actions

Create

	Description	Edate	Amount	Category
	bought groceries	30-MAY-22	500	groceries
	paid wifi bill	25-MAY-22	400	bills
	rent paid	25-MAY-22	200	rent
	car maintenance	21-MAY-22	150	bills
	maintenance	21-MAY-22	150	bills
	paid tuition fee	19-MAY-22	400	fees
	paid tuition fee	19-MAY-22	400	fees
	paid school fee	18-MAY-22	200	fees
	paid electricity bill	14-MAY-22	500	bills
	paid gas bill	12-MAY-22	350	bills
	tv bill	12-MAY-22	200	bills
	paid water bill	11-MAY-22	100	bills
	bought clothes	05-MAY-22	500	clothing
	rent paid	19-APR-22	500	rent

This page is used to display all the expenses of the user. It is an interactive report and the user can perform various operations like sorting, filtering, etc. on the data. To add a new expense, the user has to click on the create button which redirects him to the following form page where a new expense can be added.

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Add Expenses

Add Expenses

Category

Description

Edate

Amount

Cancel

Create

Once the user enters his details and clicks on create, a new row is created in the EXPENDITURE table and the new expense is stored in the database. Before being redirected back to the expenses page, a process is executed which checks whether the expenditure limit for the month was crossed. If yes, an email is sent to the email address stored in the session_email application item alerting the user.

Income Page:

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Actions

Create

	Category	Description	Idate	Amount
	salary	salary received	30-MAY-22	10000
	interest	bank interest received	17-MAY-22	1500
	rent	rent received	11-MAY-22	3000
	salary	salary received	13-APR-22	10000

1 - 4

The income page contains a report displaying all the income entries added by the user. It is an interactive report where the user can view data from the INCOME table and also perform various operations like sorting, filtering, etc. on the data. The user clicks on the create button in order to add a new income entry. This button redirects the user to the add income form page shown below.

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Add Income

Add Income

Category

Description

Idate

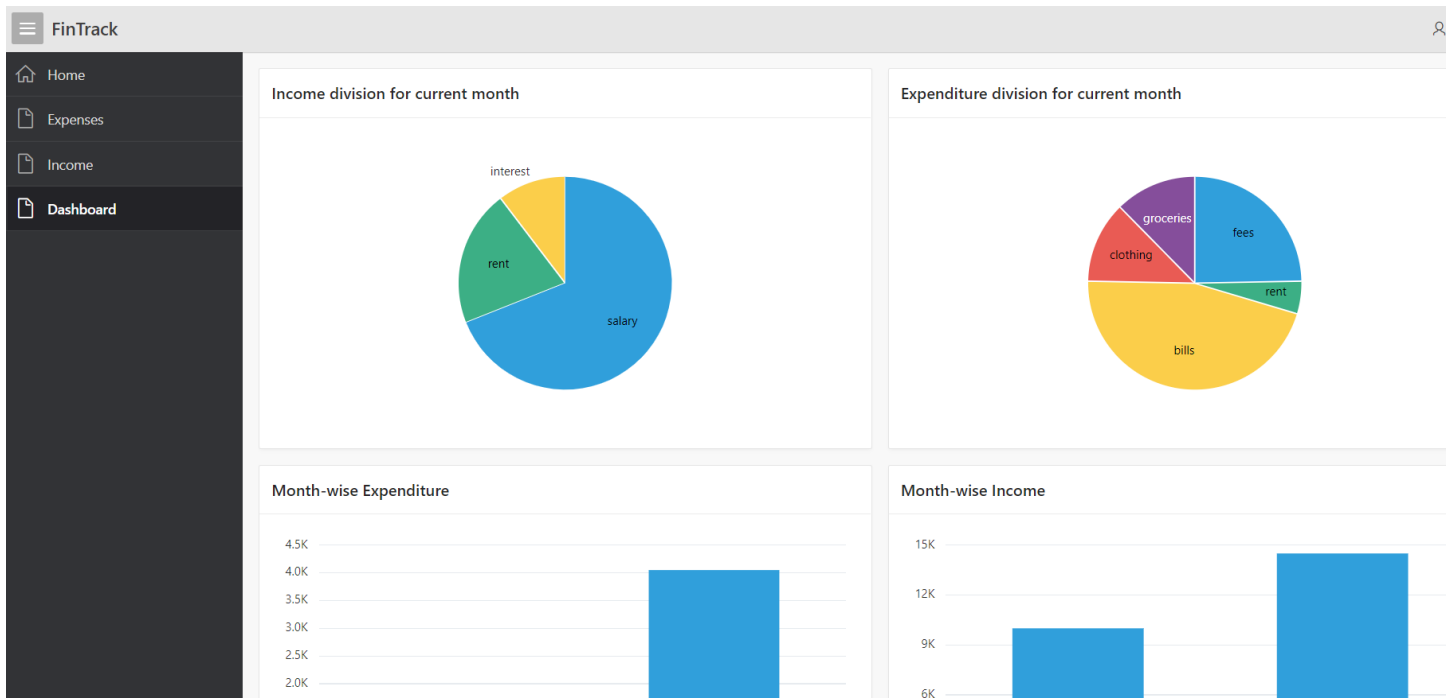
Amount

Cancel

Create

User can enter the details of the new income entry here in the form and click on create to add it to the INCOME table in the database.

Dashboard:



This page displays various visual charts and graphs which helps the users analyze their expenses. The dashboard consists of 4 figures. The first and second figures are pie charts. They are used to breakdown the monthly income and expenditure of a user based on the category. The next two figures are bar graphs which display the total monthly income and expenditure of a user over a few months using the bar graph.

Links:

Application Link: <https://iacademy.oracle.com/ords/f?p=9963>

Workspace Credentials:

Workspace and Username: IN_B435_SQL_S56

Password: kritika@5