# Personal Expense Tracker Application

# Functional Requirements

Tracking expenses is the only way to make sure that your money does not go down the drain. The idea is pretty simple: you need to categorize expenses by category and analyse how much you spend on each.  Examples of categories include food, insurance, utilities, etc. Based on the analysis, you’ll be able to decrease expenses and increase savings. The application will allow any user read-only rights to view the expense records registered in the application. Only registered users however, may add, modify, and delete records. There is no capacity for multiple group definitions, thus the default group is “Normal” and cannot be changed.

# Default Settings Permit

• Only Registered Users may view records and only their own

• Only Registered Users may search their own records

• Registered users may add, modify, and delete records

• Registration is available to anyone

• Users may not Search for accounts.

Registration of normal users is simply done by pressing “Logon” and following the Registration Views. User data is written to the data source. In the default installation, it is written to Datafiles/Expense/expense.users.dat. It is recommended that administrators do not alter the contents, especially the encrypted passwords. The information is listed as:

## Username|password|group\_name|fname|lname|email

Registration of Administrative users may be done with expense\_admin.cgi. System administrators will be able to alter hard data in databases or flat files as needed.

- **Login View** requests the Username and Password of registered users. Users may attempt to logon, Register, or Search for Account. Also, the view for failed logins.

- **Register View** permits any user to enter Username, Password, Confirm, Password, First Name, Last Name, and E-Mail. The user may then Register or Return to Logon Screen.

- **Register Confirmation** View confirms registration and returns the user to the Logon View.

- **Logoff View** logs the user out and confirms the logoff. The session is terminated

# Application Specific View Definitions

- **Default Display** is split into two screens. The right screen lists the user’s records. The left is the control panel. A user may view his claims, open claims, closed claims, and statistics. The user may also “fast add.” Users may also search their claims.

- **My Stats View** displays total expenses for that user

- **Open Claims** View simply displays any unapproved records

- **Closed Claims** View displays approved records

- **Details View** displays the subject, abstract, and full text of a news item. User may then Modify or Delete.

- **Fast Add Record Form** permits entry of a new record. Expense Type, Dollar Amount, Project, and Description are required fields.

- **Add Record Confirmation View** will display details of the new claim and ask for confirmation.

- **Add Record Acknowledgement** View will be displayed after a record is added to let the user know that the action was successful.

- **Modify Record form** will allow the user to edit the details of his records.

- **Modify Record Confirmation Page** will display record details for final confirmation before they are modified in the data source

- **Modify Record Acknowledgement Page** will be displayed after a record is modified to let the user know that the action was successful.

- **Delete Record Button** permits deletion of records.

- **Delete Record Confirmation Page** will display details for final confirmation before deleting the record - Delete Record Acknowledgement Page displayed after successful deletion.

# Risks and Dependencies

The two programs utilize the same user database. In the default installation, a user may register for administrative access, but not regular access. A record entered by an administrator with the same user information as a regular user will be accessible to both users.