Project report
on

Daily Expense Tracking System

ABSTRACT

We are developing an Web application named as “Daily Expense Tracker System” and this application is used to manage the application user‘s daily expenses in a more efficient and manageable way. By using this application we can reduce the manual calculations for their daily expenses and keep the track of the expenditure. In this application, user can provide his/her expense to calculate his/her total expenses per day and these results will stored for unique user.

EXISTING SYSTEM

In existing, we need to maintain the Excel sheets, CSV etc. files for the user daily and monthly expenses. In existing, there is no as such complete solution to keep a track of its daily expenditure easily. To do so a person as to keep a log in a diary or in a computer, also all the calculations needs to be done by the user which may sometimes results in errors leading to losses.

SOFTWARE AND HARDWARE SPECIFICATIONS

HARDWARE REQUIREMENTS:

Processor	:	Intel P-IV based system
Processor Speed	:	2.0. GHz
RAM	:	1GB
Hard Disk	:	40GB to 80GB

SOFTWARE REQUIREMENTS:

Database	:	MySQL
Server	:	Apache
Frontend	:	HTML
Scripting language	:	Java Script
IDE	:	Sublime
Technology	:	PHP

PROJECT OVERVIEW

Daily Expense Tracker System

In Daily Expense Tracker System we use PHP and MySQL database. This is the project which keeps records of daily expenses. **DETS has one module i.e. user.**

1. **Dashboard:** In this section, user can briefly view expenses on a daily basis, monthly basis and yearly basis.
2. **Expenses:** In this section user can manage the expenses (add/delete).
3. **Expense Report**: In this section, user can view expenses on day wise basis, month wise basis and year wise basis according to periods of time.
4. **Profile**: In this section, user can update his/her profile.
5. **Change Password**: In this section, user can change his/her passwords
6. **Logout**: Through this button, user can log out.

User can also recover his/her password.

SYSTEM DEVELOPMENT ENVIRONMENT

1. HTML

WHAT IS HTML?

To publish information for global distribution, one needs a university-understood language, a kind of publishing mother tongue that all computers may potentially understand. The publishing language used by the World Wide Web is HTML (Hyper Text Markup Language)

HTML   Gives Authors the Means To

1. Publish online documents with headings, text, tables, list, photos etc.
2. Retrieve online information via hypertext links, at the click of a button
3. Design forms for conducting transactions with remote services, for use in searching information, making reservation, ordering products etc.;
4. Includes spreadsheets, video clips, sound clips, and other applications directly in the documents.
5.

Some HTML Tags

<HTML>	:Starting an HTML tag
<HEAD>	: Creating a web page’s head
<TITLE>	: Giving a web page ‘s body
</HEAD>	: Ending a web pages head
</BODY>	: Ending a web pages body

</HTML>	:Ending a web page
<FORM>	: Creating a HTML forms
<INPUT TYPE=BUTTON>	: Creating a buttons
<INPUT TYPE=CHECKBOX>	: Creating a checkboxes
<INPUT TYPE=SUBMIT>	: Creating a submit button
<INPUT TYPE=TEXT>	: Creating a text fields

HTML 4.0

HTML 4.0 extends with mechanisms for style sheets, scripting, frames embedding objects, improved support for right to left and mixed direction texts, richer tables and enhancements to form, offering improved accessibilities for people with disability.

2. INTRODUCTION TO JAVA SCRIPT

WHAT IS JAVA SCRIPT?

JavaScript, originally supported by Netscape Navigator, is the most popular Web scripting language today. JavaScript lets you embed programs right in your Web pages and run these programs using the Web browser. You place these programs in a <SCRIPT> element. If you want the script to write directly to the Web page, place it in the <BODY> element.

EX:

```
<HTML>
     <HEAD>
        <TITLE></TITLE>
      </HEAD>
```

```
<BODY>
  <SCRIPT LANGUAGE=”JavaScript”>
  </SCRIPT>
 </BODY></HTML>
```

JAVASCRIPTS OBJECTS

JavaScript is an object-oriented language. JavaScript comes with a number of predefined objects.

Objects of the JavaScript

1. Document: Corresponds to the current Web page’s body. Using this object, you have access to the HTML of the page itself, including the all links, images and anchors in it.
2. Form: Holds information about HTML forms in the current page.
3. Frame: Refers to a frame in the browser’s window.
4. History: Holds the records of sites the Web browser has visited before reaching the current page.
5. Location: Holds information about the location of the current web page.
6. Navigator: Refers to the browser itself, letting you determine what browser the user has.
7. Window: Refers to the current browser window.

JAVASCRIPTS EVENTS

Some of the events of JavaScript

1. on Change: Occurs when data in a control, like a text field, changes.
2. on Click: Occurs when an element is clicked.
3. on Focus: Occurs when an element gets the focus.

4. on Mouse Down: Occurs when a mouse button goes down.
5. on Reset: Occurs when the user clicks the reset button.

JAVASCRIPTS FUNCTIONS

Declaration of function

```
Syntax: function function name ()
          {
             …
              …
           }
```

Write these functions in <SCRIPT> tag.

5.RDBMS CONCEPTS

1. DATA ABSTRACTION

A major purpose of a database system is to provide users with an abstract view of the data. This system hides certain details of how the data is stored and maintained. However in order for the system to be usable, data must be retrieved efficiently. The efficiency lead to the design of complex data structure for the representation of data in the database. Certain complexity must be hidden from the database system users. This accomplished by defining several levels of abstraction at which the database may be viewed.

2. CLASSIFICATION OF DATABASE

There are 3 types of database approaches given below,

a. **Hierarchical Database:**

In this type of model data is represented in simple tree structured. The record at the top of three is known as root, the root may have any number of dependents. Each of these may have any number of low level dependents and so on up to any number of levels. The disadvantages of the approach are that no independent record occurrence can exist without it's superior.

b. **Network Database:**

In a Network database, data is represented by Network structure. In this approach record occurrence can have any number of superiors as well as any number of immediate dependents thus allow many to many correspondence directly than an hierarchical approach. The main disadvantage of the Network model is data representation is very complex resulting in complexity of the DML (Data Manipulation Language).

c. **Relational Database:**

The Relational model represents data and relationships among data by a collection of tables each of which has a number of columns with unique names.

6.THE SQL LANGUAGE

SQL is a language for relational database. SQL is a non-procedural i.e., when we use SQL we specify what we want to be done not how to do it.

Features of SQL

1. SQL is an interactive query language.
2. SQL is a database administration language.
3. SQL is a database programming language.
4. SQL is a client/server language.
5. SQL is a distributed database language.
6. SQL is a database gateway language.

Basic SQL Commands

- ✓ Data Definition Language commands (DDL)
- ✓ Data Manipulation Language commands (DML)
- ✓ Transaction Control Language commands (TCL)
- ✓ Data control Language commands (DCL)

PHP

- PHP is an acronym for "PHP: Hypertext Preprocessor"
- PHP is a widely-used, open source scripting language
- PHP scripts are executed on the server
- PHP is free to download and use

What is a PHP File?

- PHP files can contain text, HTML, CSS, JavaScript, and PHP code
- PHP code are executed on the server, and the result is returned to the browser as plain HTML
- PHP files have extension ".php"

What Can PHP Do?

- PHP can generate dynamic page content
- PHP can create, open, read, write, delete, and close files on the server
- PHP can collect form data
- PHP can send and receive cookies

- PHP can add, delete, modify data in your database
- PHP can be used to control user-access
- PHP can encrypt data

With PHP you are not limited to output HTML. You can output images, PDF files, and even Flash movies. You can also output any text, such as XHTML and XML.

DESIGN DOCUMENT

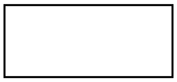
- The entire system is projected with a physical diagram which specifics the actual storage parameters that are physically necessary for any database to be stored on to the disk. The overall systems existential idea is derived from this diagram.

- The relation upon the system is structure through a conceptual ER-Diagram, which not only specifics the existential entities but also the standard relations through which the system exists and the cardinalities that are necessary for the system state to continue.

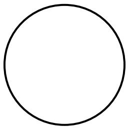
- The content level DFD is provided to have an idea of the functional inputs and outputs that are achieved through the system. The system depicts the input and output standards at the high level of the systems existence.

A DFD does not show a sequence of steps. A DFD only shows what the different process in a system is and what data flows between them.

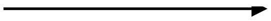
The following are some DFD symbols used in the project



External entities



Process: A transaction of information that resides within the bounds of the system to be module.



DATASTORE: A repository of data that is to be stored for use by one or more processes, may be as simple as buffer of queue or as a relational database.

RULES FOR DFD:

- Fix the scope of the system by means of context diagrams.
- Organize the DFD so that the main sequence of the actions reads left to right and top to bottom.
- Identify all inputs and outputs.
- Identify and label each process internal to the system with rounded circles.
- A process is required for all the data transformation and transfers. Therefore, never connect a data store to a data source or the destinations or another data store with just a data flow arrow.
- Do not indicate hardware and ignore control information.
- Make sure the names of the processes accurately convey everything the process is done.
- There must not be unnamed process.
- Indicate external sources and destinations of the data, with squares.
- Number each occurrence of repeated external entities.
- Identify all data flows for each process step, except simple Record retrievals.
- Label data flow on each arrow.
- Use details flow on each arrow.
- Use the details flow arrow to indicate data movements.
- There can’t be unnamed data flow.
- A data flow can’t connect two external entities.

LEVELS OF DFD:

The complexity of the business system means that it is a responsible to represent the operations of any system of single data flow diagram. At the top level, an Overview of the different systems in an organization is shown by the way of context analysis diagram. When exploded into DFD They are represented by:

- LEVEL-0 : SYSTEM INPUT/OUTPUT
- LEVEL-1:SUBSYSTEM LEVEL DATAFLOW FUNCTIONAL

- LEVEL-2: FILE LEVEL DETAIL DATA FLOW.

The input and output data shown should be consistent from one level to the next.

LEVEL-0: SYSTEM INPUT/OUTPUT LEVEL

A level-0 DFD describes the system-wide boundaries, dealing inputs to and outputs from the system and major processes. This diagram is similar to the combined user-level context diagram.

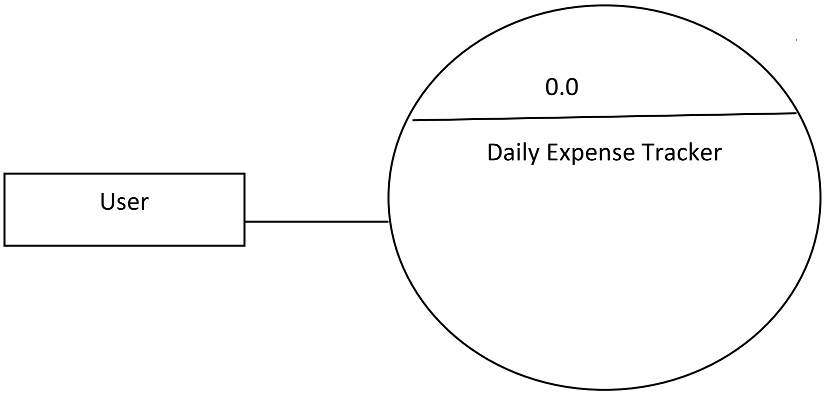
LEVEL-1: SUBSYSTEM LEVEL DATA FLOW

A level-1 DFD describes the next level of details within the system, detailing the data flows between subsystems, which makeup the whole.

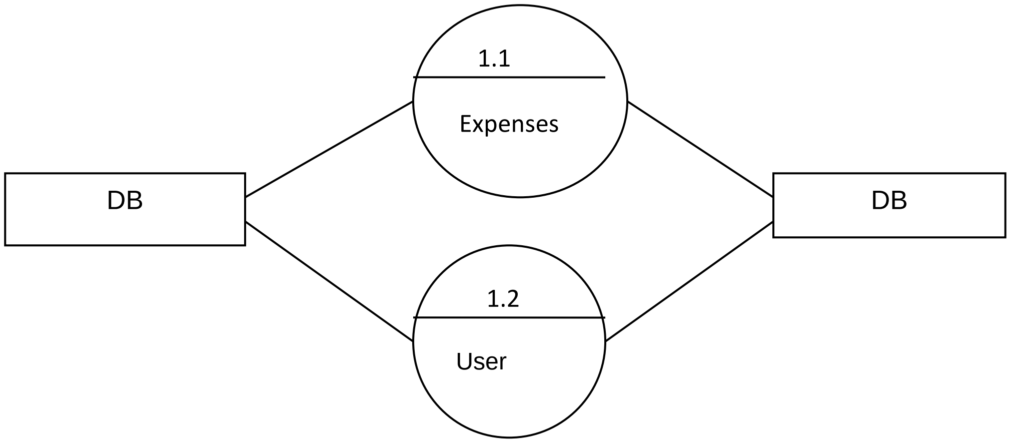
LEVEL-2: FILE LEVEL DETAIL DATA FLOW

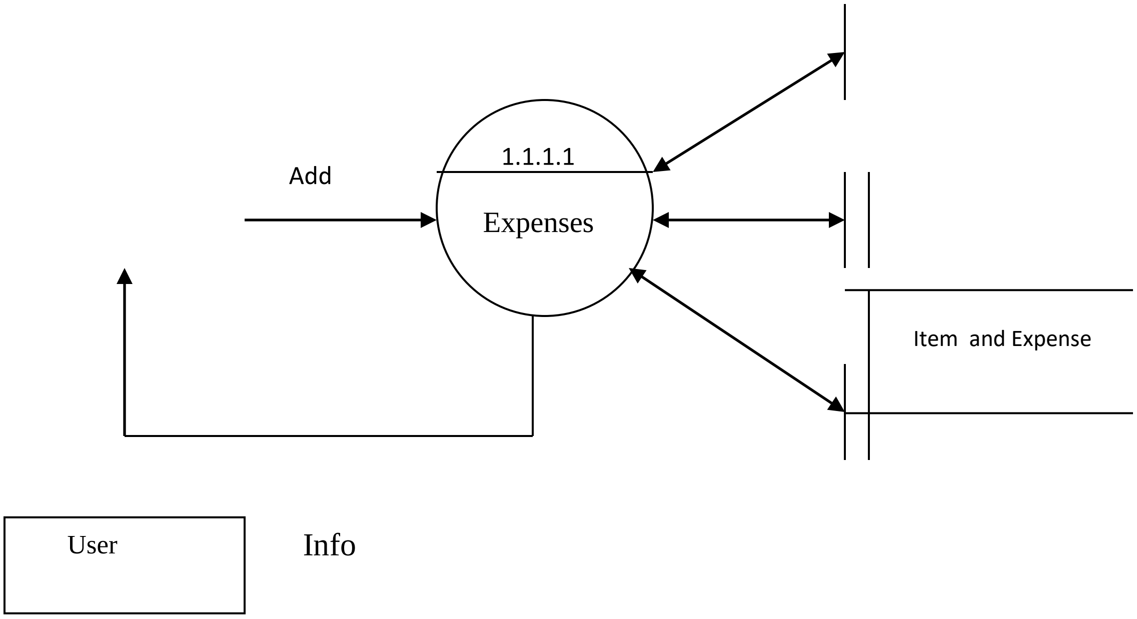
All the projects are feasible given unlimited resources and infinite time. It is both necessary and prudent to evaluate the feasibility of the project at the earliest possible time. Feasibility and the risk analysis are pertained in many ways. If project risk is great.

FIRST LEVEL DTAFLOW DIAGRAM



2nd Level DFDs





2. Unified Modeling Language Diagrams(UML):

- The unified modeling language allows the software engineer to express an analysis model using the modeling notation that is governed by a set of syntactic semantic and pragmatic rules.
- A UML system is represented using five different views that describe the system from distinctly different perspective. Each view is defined by a set of diagram, which is as follows.

User Model View

i. This view represents the system from the users perspective.

ii. The analysis representation describes a usage scenario from the end-users perspective**.**

Structural model view

- In this model the data and functionality are arrived from inside the system.
- This model view models the static structures.

Behavioral Model View

- It represents the dynamic of behavioral as parts of the system, depicting the interactions of collection between various structural elements described in the user model and structural model view.

Implementation Model View

- In this the structural and behavioral as parts of the system are represented as they are to be built.

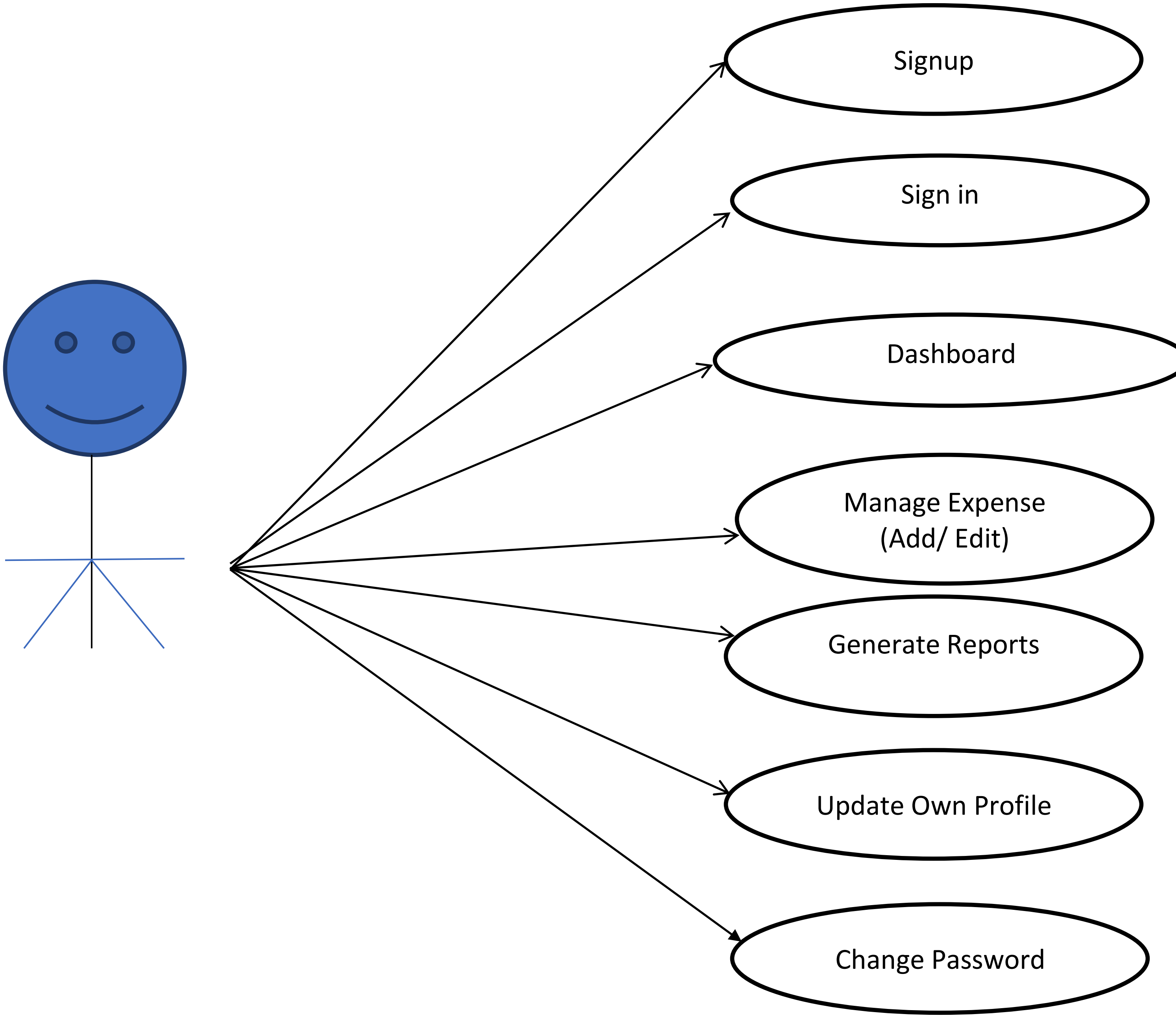
Environmental Model View

In this the structural and behavioral aspects of the environment in which the system is to be implemented are represented.

UML is specifically constructed through two different domains they are

- UML Analysis modeling, which focuses on the user model and structural model views of the system?
- UML design modeling, which focuses on the behavioral modeling, implementation modeling and environmental model views.

Use Case Diagrams User



ENTITY-RELATIONSHIP Diagrams

E-R (Entity-Relationship) Diagram is used to represents the relationship between entities in the table.

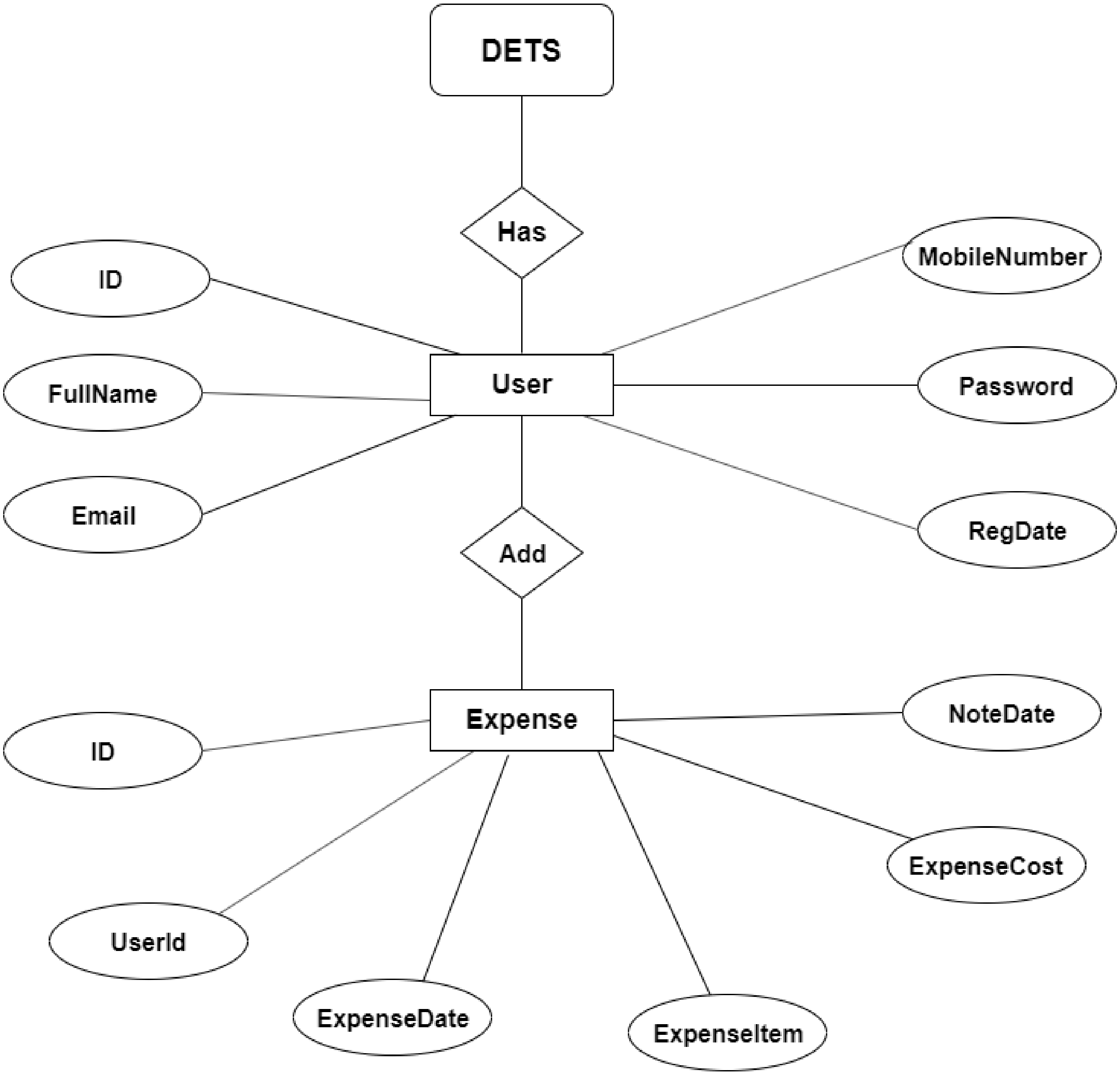
The symbols used in E-R diagrams are:

SYMBOL	PURPOSE
▭	Represents Entity sets.
⬭	Represent attributes.
◇	Represent Relationship Sets.
———	Line represents flow

Structured analysis is a set of tools and techniques that the analyst.

To develop a new kind of a system:

The traditional approach focuses on the cost benefit and feasibility analysis, Project management, and hardware and software selection a personal considerations.


DETS
Has
ID
MobileNumber
FullName
User
Password
Email
Add
RegDate
Expense
NoteDate
ID
ExpenseCost
UserId
ExpenseDate
ExpenseItem

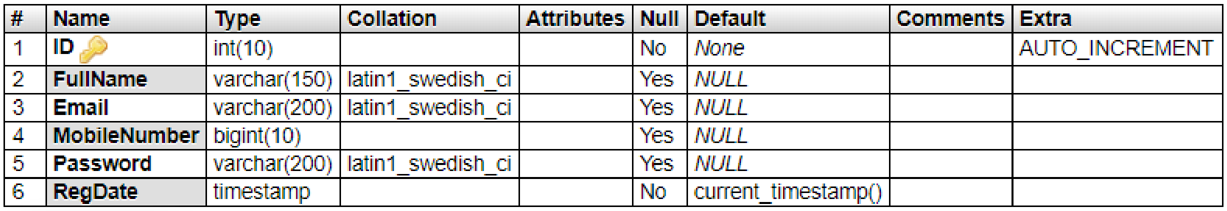
DATABASE DESIGN

The data in the system has to be stored and retrieved from database. Designing the database is part of system design. Data elements and data structures to be stored have been identified at analysis stage. They are structured and put together to design the data storage and retrieval system.

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability. This ensures minimizing data storage required, minimizing chances of data inconsistencies and optimizing for updates. The MS Access database has been chosen for developing the relevant databases.

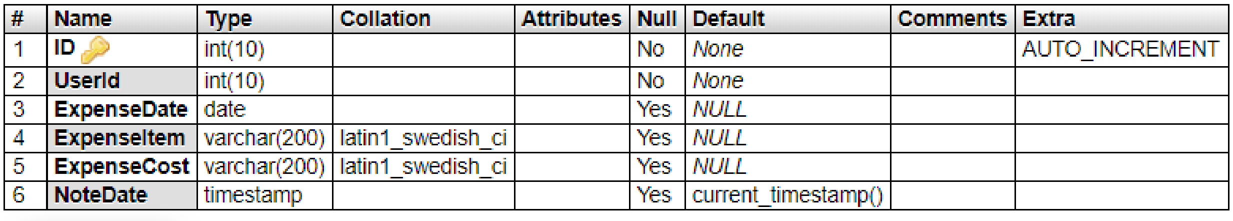
Daily Expense Tracking System (dets) contains 2 MySQL tables :

tbluser table Structure : This table store the login and personal details of user.



#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**ID** 🔑	int(10)			No	*None*		AUTO_INCREMENT
2	**FullName**	varchar(150)	latin1_swedish_ci		Yes	*NULL*		
3	**Email**	varchar(200)	latin1_swedish_ci		Yes	*NULL*		
4	**MobileNumber**	bigint(10)			Yes	*NULL*		
5	**Password**	varchar(200)	latin1_swedish_ci		Yes	*NULL*		
6	**RegDate**	timestamp			No	current_timestamp()		

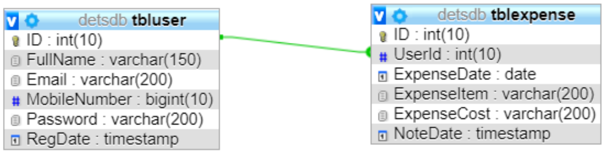
tblexpense table Structure : This table store the item expense details.



#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**ID**	int(10)			No	*None*		AUTO_INCREMENT
2	**UserId**	int(10)			No	*None*		
3	**ExpenseDate**	date			Yes	*NULL*		
4	**ExpenseItem**	varchar(200)	latin1_swedish_ci		Yes	*NULL*		
5	**ExpenseCost**	varchar(200)	latin1_swedish_ci		Yes	*NULL*		
6	**NoteDate**	timestamp			Yes	current_timestamp()		

Class Diagram:

The class diagram shows a set of classes, interfaces, collaborations and their relationships.



SYSTEM TESTING

SOFTWARE TESTING TECHNIQUES:

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, designing and coding.

TESTING OBJECTIVES:

1. Testing is process of executing a program with the intent of finding an error.
2. A good test case design is one that has a probability of finding an as yet undiscovered error.
3. A successful test is one that uncovers an as yet undiscovered error.

These above objectives imply a dramatic change in view port.

Testing cannot show the absence of defects, it can only show that software errors are present.

There are three types of testing strategies

1. Unit test
2. Integration test
3. Performance test

Unit Testing:

Unit testing focuses verification efforts on the smallest unit of software design module. The unit test is always white box oriented. The tests that occur as part of unit testing are testing the module interface, examining the local data structures, testing the boundary conditions, execution all the independent paths and testing error-handling paths.

Integration Testing:

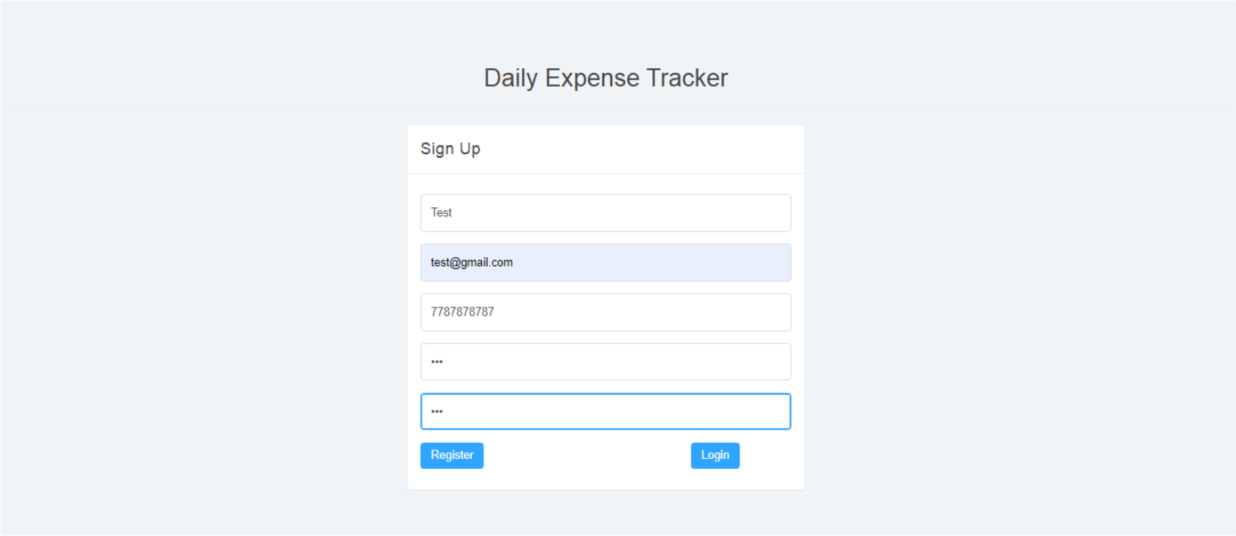
Integration testing is a systematic technique or construction the program structure while at the same time conducting tests to uncover errors associated with interfacing. Scope of testing summarizes the specific functional, performance, and internal design characteristics that are to be tested. It employs top-down testing and bottom-up testing methods for this case.

Performance Testing:

Timing for both read and update transactions should be gathered to determine whether system functions are being performed in an acceptable timeframe.

Output Screen of Project

Registration Page



Daily Expense Tracker

Sign Up

Test

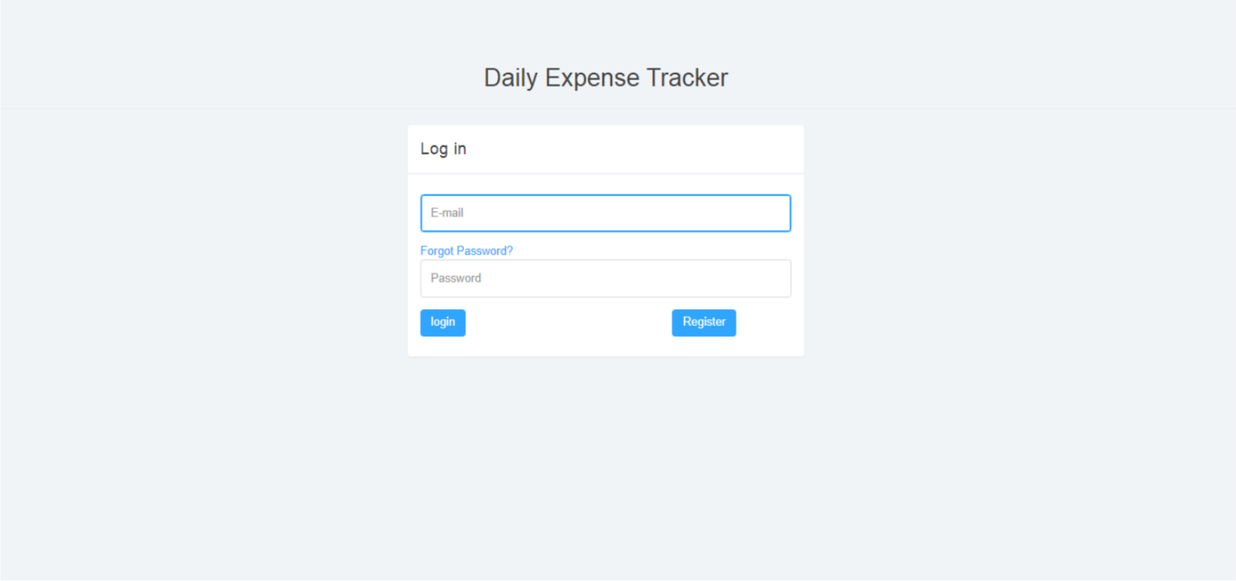
test@gmail.com

7787878787

•••

•••

Login Page



Daily Expense Tracker

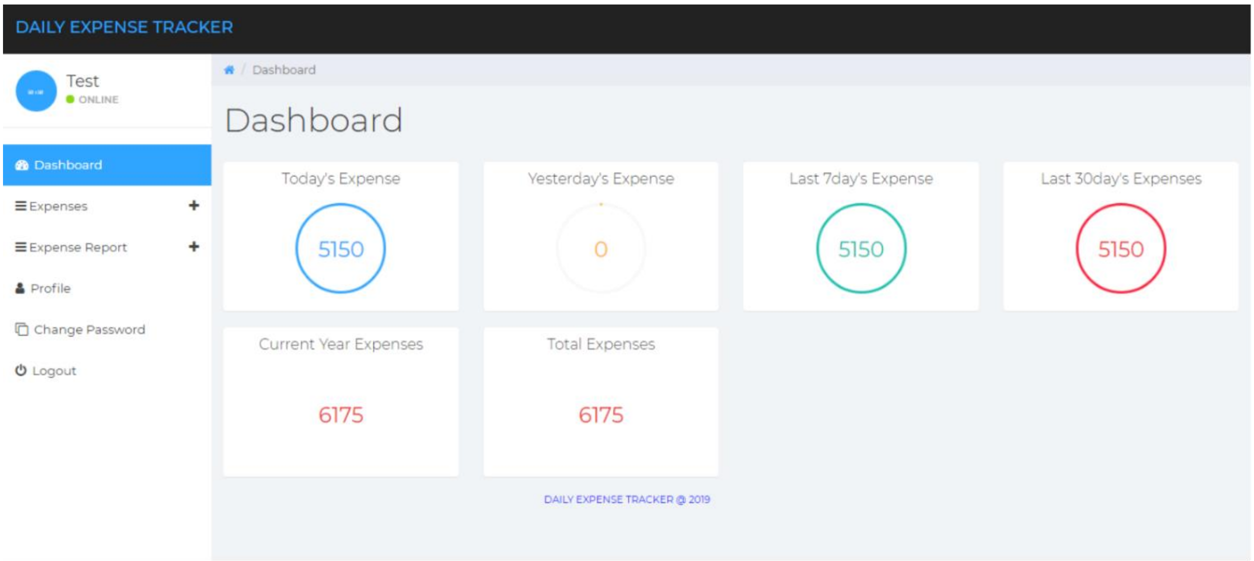
Log in

E-mail

Forgot Password?

Password

Dashboard



Dashboard

Today's Expense 5150

Yesterday's Expense 0

Last 7day's Expense 5150

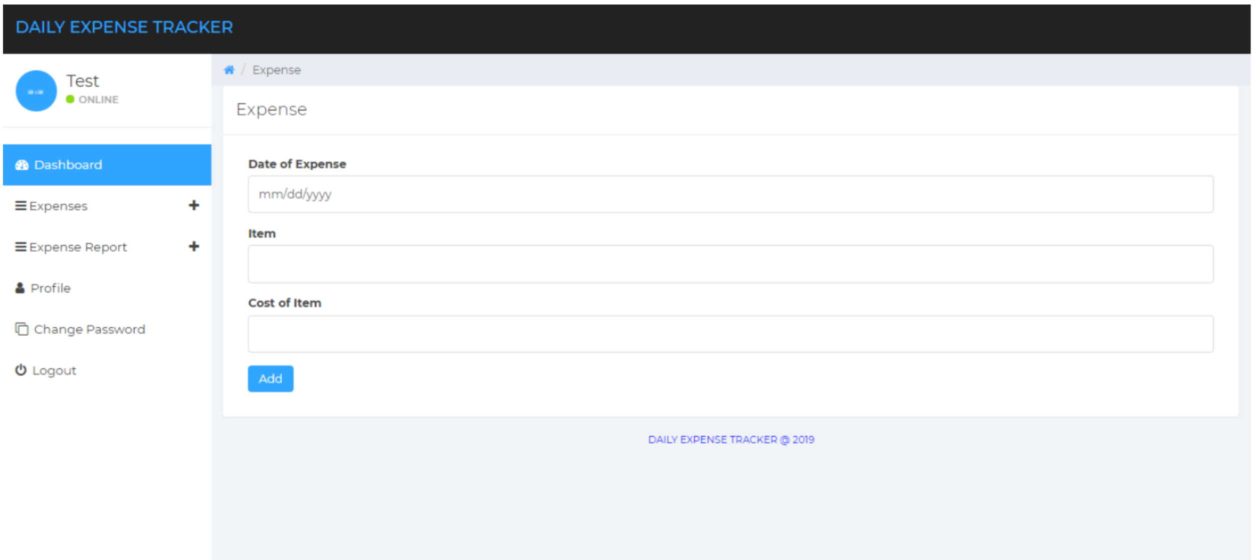
Last 30day's Expenses 5150

Current Year Expenses 6175

Total Expenses 6175

DAILY EXPENSE TRACKER @ 2019

Add Expense



Expense

Date of Expense

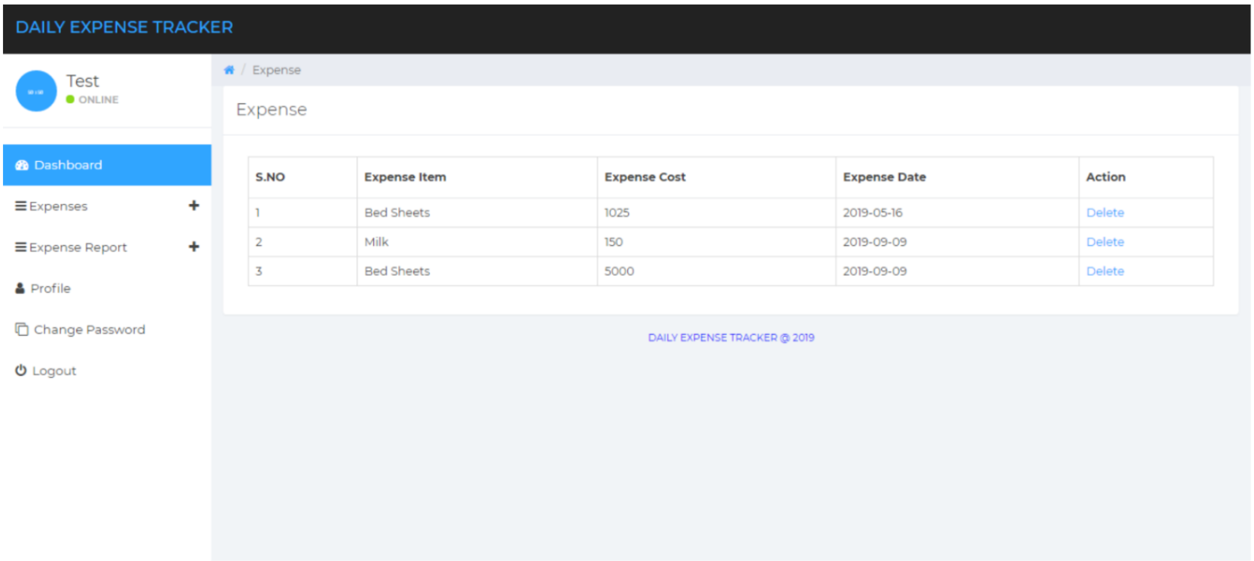
mm/dd/yyyy

Item

Cost of Item

DAILY EXPENSE TRACKER @ 2019

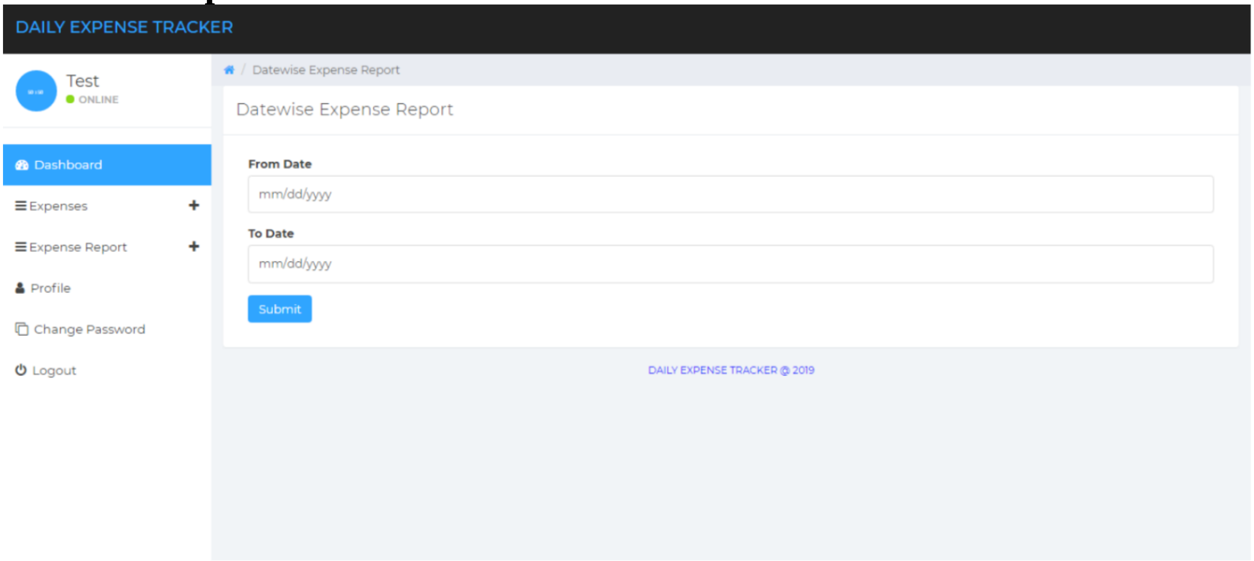
Manage Expense

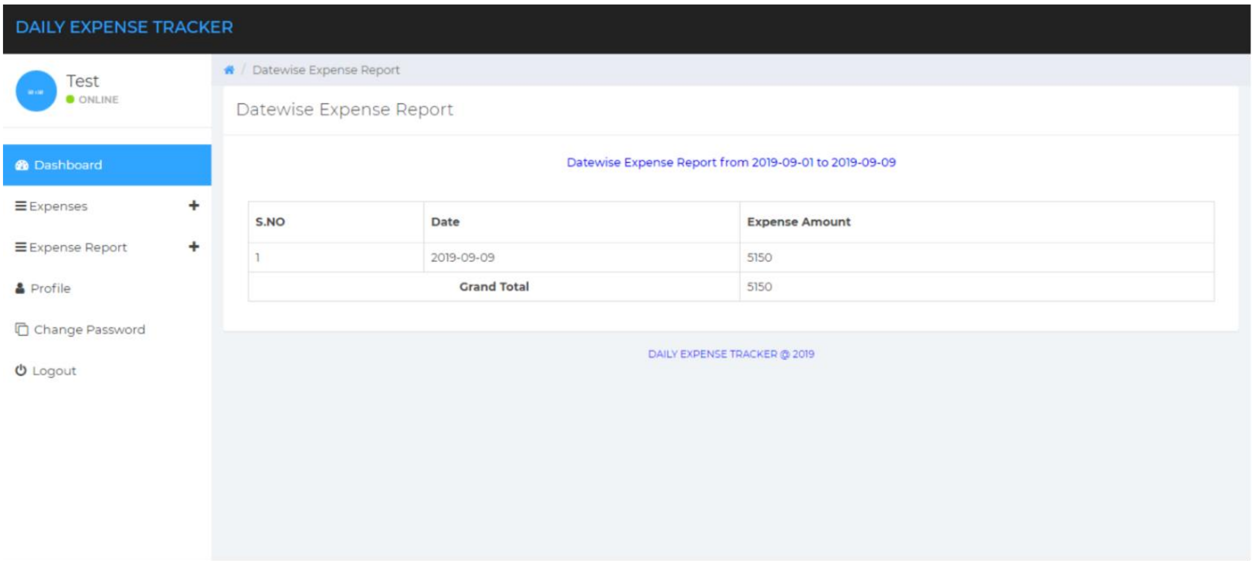


S.NO	Expense Item	Expense Cost	Expense Date	Action
1	Bed Sheets	1025	2019-05-16	Delete
2	Milk	150	2019-09-09	Delete
3	Bed Sheets	5000	2019-09-09	Delete

Expense Report

Date wise Reports





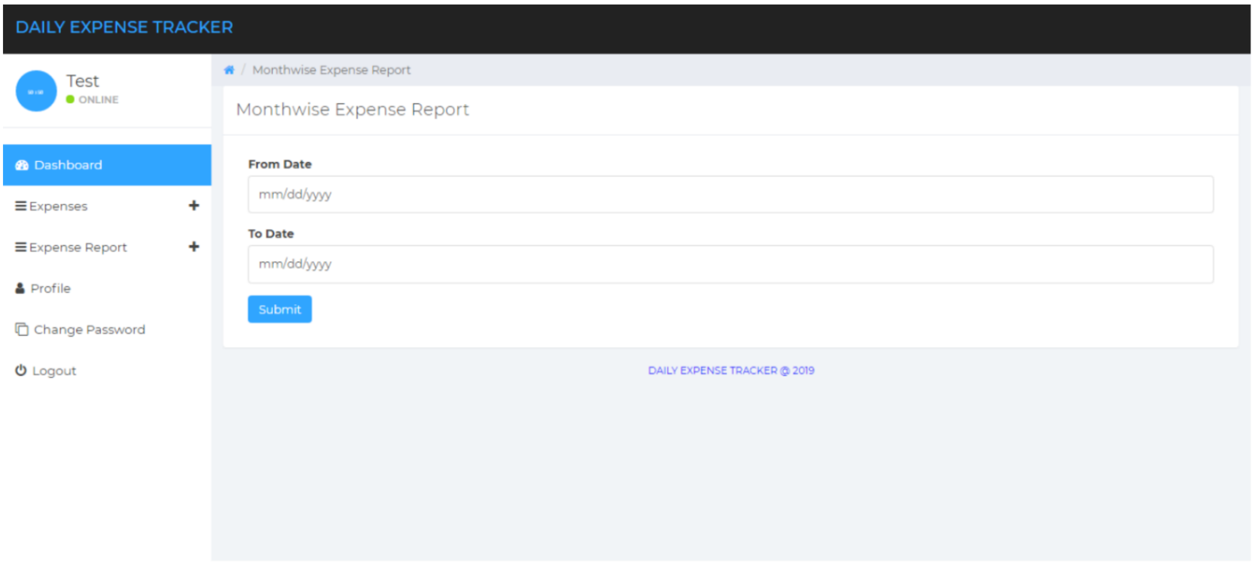
Datewise Expense Report

Datewise Expense Report from 2019-09-01 to 2019-09-09

S.NO	Date	Expense Amount
1	2019-09-09	5150
	Grand Total	5150

DAILY EXPENSE TRACKER @ 2019

Month wise Report



Monthwise Expense Report

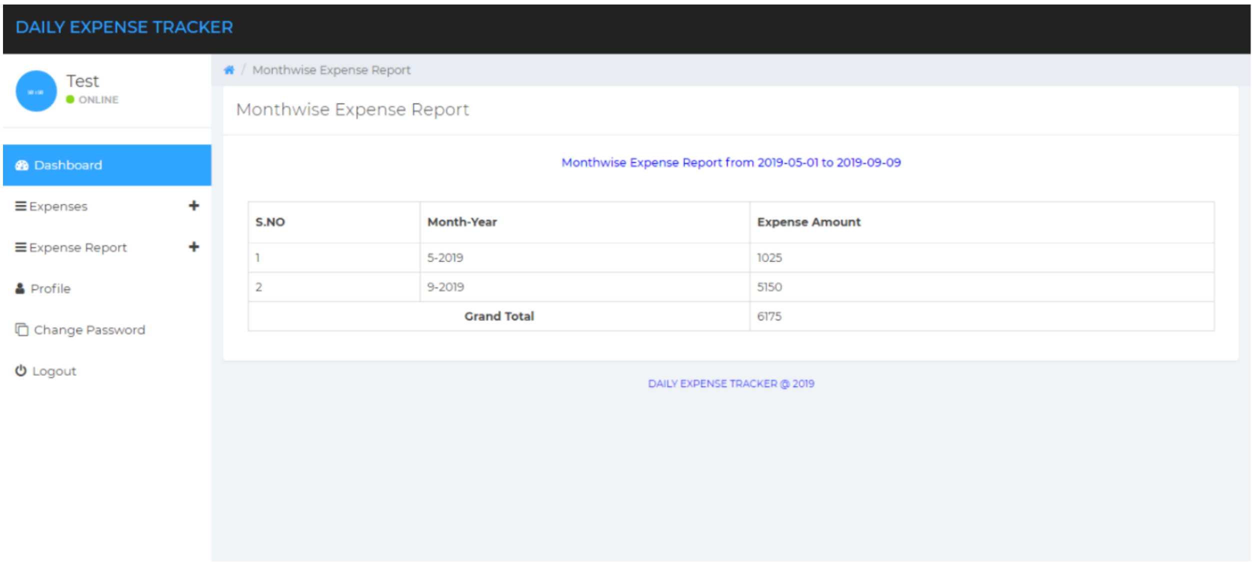
From Date

mm/dd/yyyy

To Date

mm/dd/yyyy

DAILY EXPENSE TRACKER @ 2019



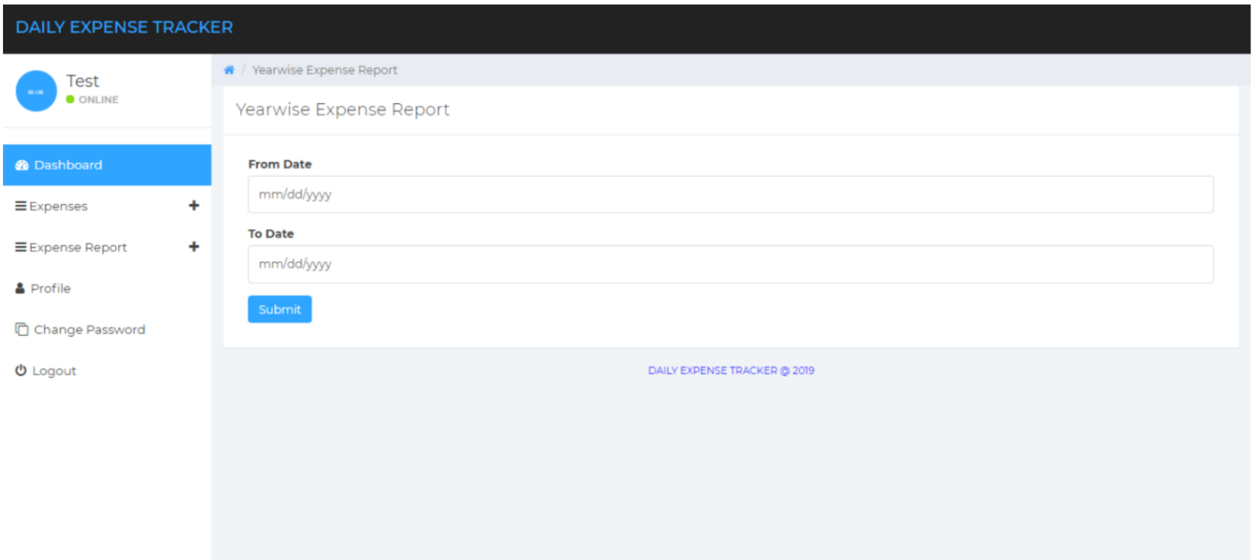
Monthwise Expense Report

Monthwise Expense Report from 2019-05-01 to 2019-09-09

S.NO	Month-Year	Expense Amount
1	5-2019	1025
2	9-2019	5150
	Grand Total	6175

DAILY EXPENSE TRACKER @ 2019

Year wise Reports



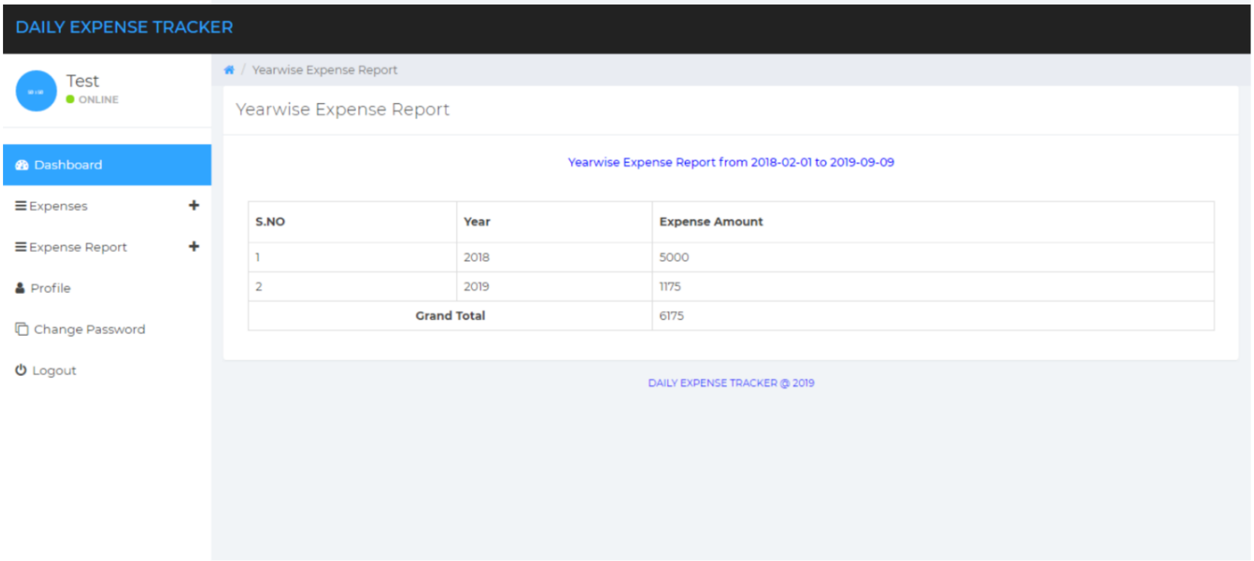
Yearwise Expense Report

From Date

mm/dd/yyyy

To Date

mm/dd/yyyy

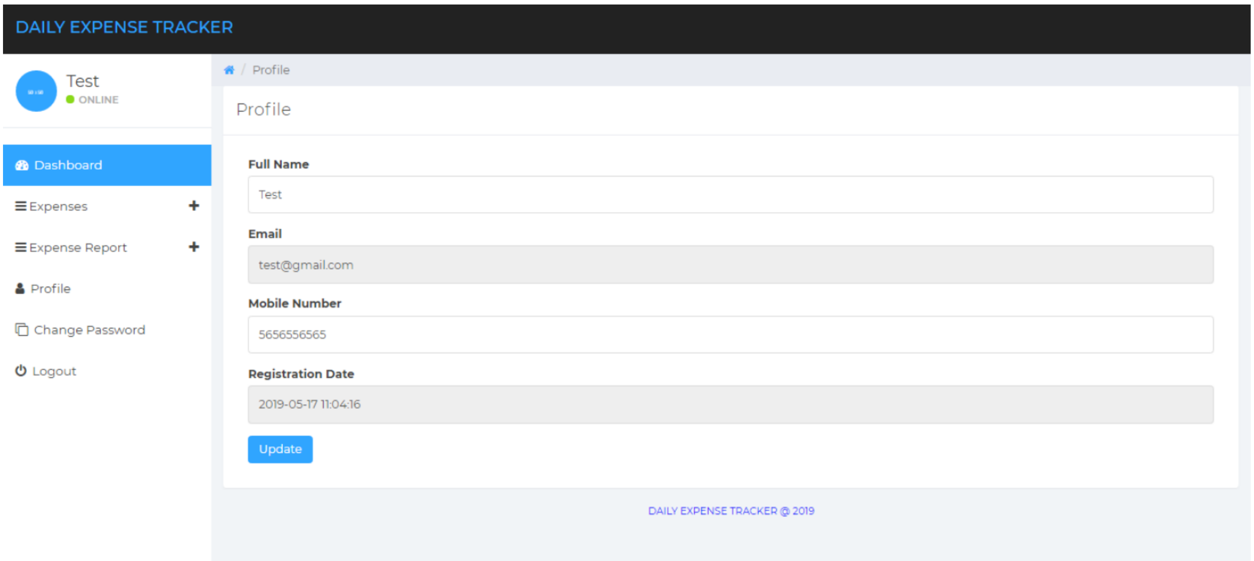


Yearwise Expense Report

Yearwise Expense Report from 2018-02-01 to 2019-09-09

S.NO	Year	Expense Amount
1	2018	5000
2	2019	1175
Grand Total		6175

Profile



Profile

Full Name

Test

Email

test@gmail.com

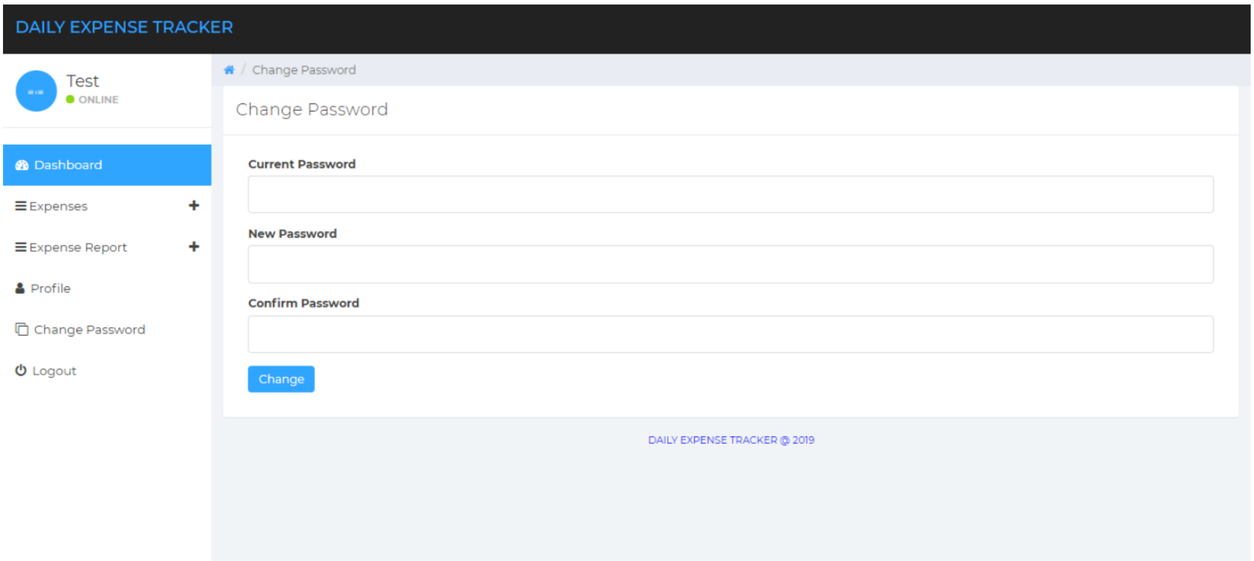
Mobile Number

5656556565

Registration Date

2019-05-17 11:04:16

Change Password



DAILY EXPENSE TRACKER

Test
ONLINE

Change Password

Change Password

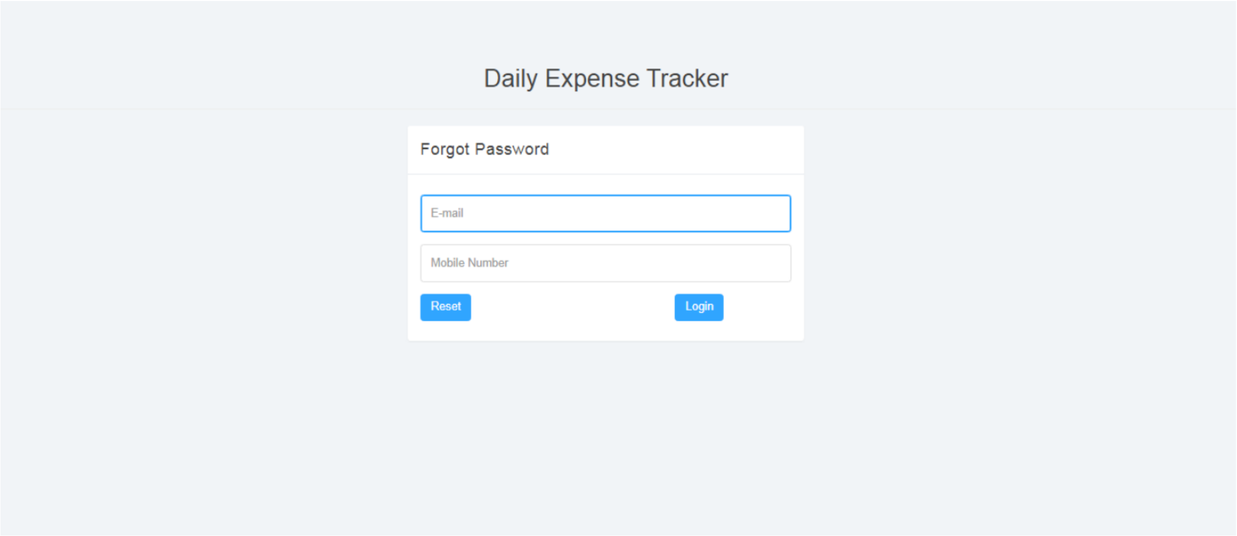
Current Password

New Password

Confirm Password

DAILY EXPENSE TRACKER @ 2019

Forgot Password



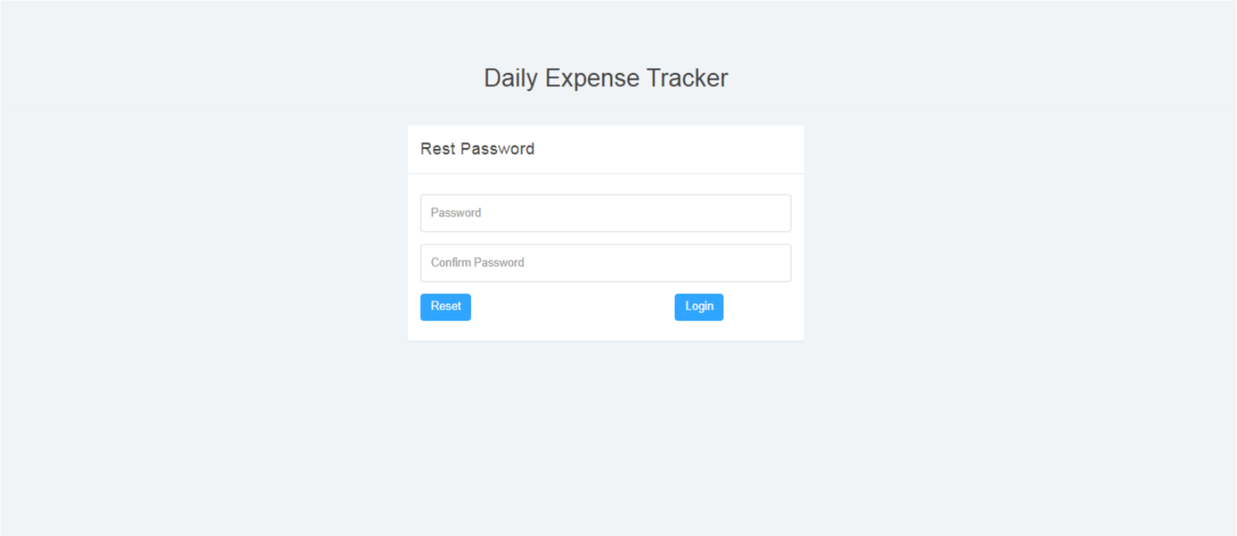
Daily Expense Tracker

Forgot Password

E-mail

Mobile Number

Reset Password



Daily Expense Tracker

Rest Password

Conclusion

The project titled as **Daily Expense Tracker System** was deeply studied and analyzed to design the code and implement. It was done under the guidance of the experienced project guide. All the current requirements and possibilities have been taken care during the project time.

Daily Expense Tracker System is used for maintain the daily expenses.

Bibliography

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For XAMPP

- https://www.apachefriends.org/download.html