EMPLOYEE EXPENSE TRACKING SYSTEM

SYSTEM DOCUMENTATION

TWIN-CIRCA MARKETING

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# Introduction

The Employee Expense Tracking System is a web-based application that manages travel-related expenses of employees. It allows users to record, submit, track, process, and reimburse employee expenses. The system used to improve and streamline current process, data management and increase response time.

This system documentation has been created to outline the overall system architecture and design. This includes the purpose, scope, design approaches, main component design and system design considerations and specifications. This document also provides an architectural overview of the system to depict different aspects of the system and functions as a foundational reference point for developers.

## Purpose

The main purpose of the system is to facilitate the entry, accumulation, processing, and management of travel-related expenses and employee reimbursement and improve efficiency, accuracy and management by reducing manual operations. The system performs a range of functionalities including:

Record Keeping

The TCM LIS is commonly used in collection of data to keep accurate records of each laboratory order. Detailed information can be recorded when the order arrives in the laboratory, this normally includes the patient information and tests to perform. It also includes information of medical technologists working on the tests and which parts of the workflow it has passed through. Using the system allows easy retrieval of data and patient results history. Expense management includes the policies and procedures that govern such spending, as well as the technologies and services utilized to process and analyze the data associated with it.

Workflow Management

The system can be used to streamline the laboratory workflow, from encoding to assigning tasks where a sample needs to be passed to for its next step in the workflow. It can then be used to allow the users to choose a machine or instrument based on the test to perform.

Reporting

The LIS is an essential tool to maintain accurate reporting. The system can generate report for each section in the laboratory based on performed tests. Additionally, the system displays a report for the amount of time taken to complete a process or fulfill a request.

To create a feature of the system that will allow employees to record and manage expenses.

To develop a feature of the system that will allow the employees to compile expenses into one report and submit without the need of paper.

To develop a feature of the system that will track employees’ remaining revolving fund.

To create a feature of the system that provides analytics.

To create a feature of the system that will generate daily, weekly, monthly, and annual sales report?

Manage and recording of expenses

View and monitoring overall expenses per employee

Employee expense analytics/ Provide statistic reports

Expense report submission and approval

Reimbursement/replenishment

Revolving fund monitoring

## Scope and Limitation

### Scope of the system

Blah blah some description

Analytics

Employee Management (incl. revolving fund monitoring)

Expense Records and Monitoring

Expense Report Management

Payment Records and Monitoring

Vendor Records

Reporting

Activity Logs

User Profile

Application Settings

### Limitation

The system does not include:

(note: limited but subject for improvement)

Payment System

* Built in payment system or payment system integration

Online Transaction (Recording of Expenses, etc.)

* Even though web based sya, deployed lang sya locally and can be accessed in a browser.

Record Mileage expenses

Per diem expenses

Notifications

# System Overview

*This section should describe the basic system design goals, functionality and architecture. It may include a high level description of the approach used to develop the system design. It may also include high-level descriptions of the system’s hardware, software, database, and security components. Depending on the complexity of the system this section may also include component and/or contextual diagrams of the system and system components.*

## System Environment

*What is this all about?*

Hardware: 4GB RAM, 120GB ROM

Development: Netbeans 6.8 + Grails 1.2.1, Visual Studio Code 1.51

Unit Test: Junit

Diagrams: Visio 2007

Database Management System: MySQL

Server: Windows Server 2008

Server: Apache Tomcat 6

Revision control: Sourceforge Subversion -

https://comp5541-team4.svn.sourceforge.net/svnroot/comp5541-team4

Discussion: Google groups

Application Architecture: Single-Page Application

Languages: HTML, CSS, JavaScript, PHP 7.3

Web Application Frameworks: Vue.js 2.5, Laravel 7.28

UI Libraries: Vuetify 2.3

## System Design Specification

*What is system design specification and why do we need it?*

### Process Specification

*What is process specification?*

#### Process Flow Diagram

#### Context Flow Diagram

#### Diagram 0

### Data Specification

*What is this all about?*

#### Entity Relationship Diagram

# User Guide

## Access, Authentication, and Authorization

Discuss roles and permissions, username password, how to access the system, what link can you access it to, etc.

## Application Modules

With Screenshots

Main (including the header, sidebar, and footer)

(note: state all meaning of button with icons only, and status colors)

Dashboard

User Profile

Employees

Expenses

(note: state all statuses and their corresponding colors)

Expense Reports

(note: state all statuses and their corresponding colors)

Payment Records

(note: state all statuses and their corresponding colors)

Vendors

Departments

Job Designations

Expense Types

Activity Logs

Settings

## Basic Workflow

State complete process at least one cycle

## Configuration and Deployment

### Hardware Requirements

State recommended specifications.

### Software Requirements

State recommended specifications.

### Linux Server Configuration

Tutorial with screenshots

### Apache Configuration

Tutorial with screenshots

### MySQL Configuration

Tutorial with screenshots

### Application Deployment

Tutorial with screenshots

Discuss File/Database Backup and Restoration

## Troubleshooting

Unable to access link

No network connection

Server down/error

Unable to login

Invalid username and password

Deactivated account

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# Appendices

## Appendix A (Gantt Chart)

## Appendix B (Definition of Terms)

Accounting terms

Expense

Replenishment

Reimbursement

IT technical terms

Database

Database Management System

Server

## Appendix C (Existing Forms and Reports)