

##### INDIAN INSTITUTE OF TECHNOLOGY INDORE

FUND MANAGEMENT SYSTEM

SOFTWARE REQUIREMENTS SPECIFICATION

VERSION 1.0

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# Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

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# 1. Introduction

## 

## Purpose

The aim of this document is to specify the complete description of the Web Portal to be developed for managing funds that are allocated under various heads at Indian Institute of Technology, Indore. To be specific, this document is going to describe the functionality, external interfaces, performance, attributes and the design constraints of the system which is going to be developed. It is intended to be used by members of the project team that will implement and verify the correct functioning of the system and the client to verify the fulfilment of all his requirements.

## Scope

* A system consisting of multiple webpages will be developed as a part of this project.
* The system can be accessed by two basic users – Administrator and Users (HOD and Head of Schools).
* The webpages will display information and updates about the details of the fund allocations and available budgets for respective departments.
* The administrator will be able to update or add indents, POP(Purchase Order Processing) and the budgets available for each department of the current year.
* The users will be able to view the following details :

1. Actual Expenses booked and Payments done.
2. Purchase Orders in Process.
3. Indents in process.
4. Advances Paid but expenses not booked.

## Definitions, Acronyms, and Abbreviations

* MySQL: It is the most widely used open-source relational database management system.
* Apache Server: It is an open-source web server and servlet container developed by the Apache Software Foundation.
* PHP : PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language.

## 1.4 References

IEEE Software Engineering Standards Committee, “IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications”, October 20, 1998.

## 1.5 Overview

The aim of the project is to establish a web portal which allows the administrator to manage the funds efficiently and the users to views details of funds regarding their own department.

One or two people from the institute will have their accounts as administrator on the website. They will have the sole authority of updating and adding information regarding the funds.

Except administrator, the heads of various schools and departments will also have their account on the portal. Users will be able to view the remaining and exhausted funds for their departments using multiple searching criteria, details about which have been listed in the later part of the document.

The website will display information to the users in a more organised manner by categorising the funds on the basis of their department.

# 2. General Description

## 2.1 Product Perspective

## C:\Users\hp hp\Downloads\BACKUP.png

## 2.2 Product Functions

* The objective of this project is to allow efficient management of funds and the users to view the fund details of their department.
* It is a web based system implementing client-server model.
* The administrators will be needed to sign into their accounts.
* They will also have the facility of changing their passwords.
* In case the administrator forgets his password, he will be able to change his password by answering a question that will be provided by him while making his account.
* The administrator will be able to update or add indents, POP(Purchase Order Processing) and the budgets available for each department of the current year.
* The users will be able to view the following details :

1. Actual Expenses booked and Payments done.
2. Purchase Orders in Process.
3. Indents in process.
4. Advances Paid but expenses not booked.

## 

## 2.3 User Characteristics

* HEAD OF DEPARTMENTS AND SCHOOLS:

This consists of the heads of various departments and schools who are interested in viewing the allocated funds and their remaining balance. This allows them to keep a check on their remaining budget and using it efficiently.

* ADMINISTRATOR :

The administrator will manage all the details of the funds stored in the database. He will be responsible for maintaining the authenticity of the information put up on the website and adding new projects on time. He would be required to keep the website up to date.

## 2.4 General Constraints

* Due to certain time constraints and restrictions, number of functionalities available in the portal would be limited.
* There would be no functionality for adding or removing accounting heads even to the administrator.
* The integration of the portal with the other software like Tally or even with the excel sheets in not possible.

## 2.5 Assumptions and Dependencies

* We assume that the user is literate enough to perform searches and other operations.
* We assume that the operating system and other underlying pieces of software is free of all errors and totally secure.

# 3. Specific Requirements

## 3.1 External Interface Requirements

### 3.1.1 User Interfaces

A user interface would be provided by the software. There will be a login panel through which the users can login. A successful login would lead them to four following option:

1. Actual Expenses booked and Payments done.
2. Purchase Orders in Process.
3. Indents in process.
4. Advances Paid but expenses not booked.

Each option would allow them to view the details of the respective option of the user’s corresponding department.

There would be separate page provided for administrator login. Once the administrator is logged in, he will get two options. The first option will allow him to edit details of the allowed users. The second option would allow the administrator to add or modify the fund related details. This option would take him to successive pages according to the task. This is explained in detail in further sections of this document.

### 3.1.2 Hardware Interfaces

The application would require an Operating System with a browser (Internet Explorer 7 or equivalent).

### 3.1.3 Software Interfaces

Software will depend on the security interface provided by the operating system.

### 3.1.4 Communications Interfaces

The application will have a network server that is web-based and created using PHP language. The server exists to retrieve information from the database and display it on the website.

## 3.2 Functional Requirements

* USERS

Only some specific users would be allowed to access the portal. These are the Head of Department or Head of Schools. Each of these users will have certain details associated with them. Once they are successfully logged in, they would only be able to view the details of their particular department (or school, depending on the user). They will be given only view access and thus would be unable to make any changes to their data.

1. Head of Department : These users will be taken to a page where they will be shown the following options :
2. All
3. Actual Expenses booked and Payments done.
4. Purchase Orders in Process.
5. Indents in process.
6. Advances Paid but expenses not booked.

Selecting an option would show the corresponding details arranged in a tabular form with the following attributes:

1. Entry Date
2. Particulars
3. Year
4. Indenter
5. Indent No, PO No, Indent amount (or Direct Purchase)
6. Amount

Finally the total amount will also be displayed.

1. Head of Schools: These users will be firstly asked to choose a department and then will be taken to the similar page to the one as stated above.

## ADMINISTRATOR

Only 2-3 users would be given the administrator rights. They will be provided with a separate URL through which they can get to the admin login page. Once the administrator is logged in, he will get two options. The first option will take him to a page which would allow him to edit details of the allowed users. The following functionalities will be provided:

* Add a User
* Modify the details of users
* Change the Password of a User

The second option will be funds. This option will take the administrator to select from the following accounting heads (or summary):

* Summary
* Physics
* Chemistry
* Mathematics
* CSE
* EE
* ME
* Centre of Astronomy
* BSBE
* HSS
* Central Workshop
* ARC
* MSE
* Other-Administration
* Student Expenditure
* Vehicle Running and Maintenance
* Placement Expenses
* Repair and Maintenance
* Shifting Charges
* Medical Treatment
* Renewal of Software
* Insurance Premium Vehicle
* Waste Testing and Disposal Charge
* Convocation Expenses
* Miscellaneous Expenses
* Postage
* Telephone and Internet Charges
* Inter IIT Sports Meet Staff
* P & S
* Seminar ConfWorkshop

## After selecting one of the above heads, the view or edit options will appear. The view option will be similar to the other users view options. The edit option will show all the information in the tabular form as in the view option, but in addition will be editable. All the details changed would directly be updated in the database.

## 3.3 Non-Functional Requirements

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### 3.3.1 Performance

Since all the technology is web-based, the server should be able to handle the requests of multiple simultaneous users(max 100).The Internet bandwidth should be able to withstand these requests-the more the better (200Mbps recommended). The server side hardware should be able to take the processing and memory load of the application (2 GHz and 4GB RAM recommended).

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### 3.3.2 Security

The Operating System on the server should be fully updated and free of vulnerabilities. The application should be developed in a way such that is free of well-known vulnerabilities such as SQLi, LFI or XSS.