System Requirement Specification

DDF Management System

Group 26

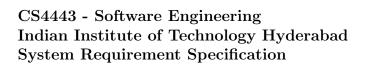Sanjay Krishna   Sushma Nalari   Likitha Langaru   Veeramalli Sathwik

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Chapter 1

Introduction

1.1   Purpose

The purpose of the DDF Management System is to provide an efficient and automated system for managing and disbursing funds for departmental development activities. The aim is to develop a software system that manages the funds allocated to a department in an efficient and convenient manner. The system simplifies the process of raising and approving fund requests for various departmental activities such as seminars, workshops, research, and other academic and professional development activities.

The purpose of this document is to present a detailed description of the Department Development Fund Management System. It explains the features, the interfaces of the system, what the system does, and the constraints under which it must operate. It handles a variety of aspects such as budget request from a user, history of the transactions, and review by the committee and the HOD. This document is intended to serve as a guide to the developers and the client.

1.2   Scope

We describe what features are in the scope of the software and what are not in the scope of the software to be developed.

In Scope

- The system has three different login users: Faculty, Committee, and Head of Department (HOD).

- Registration and login for the users on the portal.

- Raising a fund request on the portal by Faculty.

- Reviewing a fund request on the portal by Commitee.

- The HOD has the final approval authority and allocates funds to approved requests.

- Tracking the status of a user request on the portal.

- Tracking expenditure and monitoring budget balances on the portal by Committe and HOD.

- Sending the approved request fund email to the Department Admin.

Out of Scope

- Software cannot give notifications to the Faculty/Committee/HOD.

- Faculty cannot give remainder to the Committee/HOD.

1.3 Definitions, Acronyms, and Abbreviations

Acronyms and Abbreviations

- SRS: Software Requirements Specification.

- DDF: Department Development Fund.

- HOD: Head of Department.

Definitions:

- Transactions: An event that involves the flow of department funds.

- Net-Balance: The amount of money in the department funds.

1.4 Overview

The next chapter - The overall description section, of this document gives an overview of the product perspective, user characteristics, assumptions, and constraints. Section 3 briefs the specific requirements that the software is expected to deliver. It describes the Functional requirements, Design constraints, and few Performance requirements. Section 4 shows a few possible extensions of the software while section 5 shows User interface screens.

Chapter 2

Overall Description

2.1 Product Perspective

The DDF Management System is an online web-based application that is accessible to authorized users through a secure login. This system allows the user to raise the fund request and track its status, gives the detailed transaction history of the funds to authorized users, and allows users to access public transactions details.The system is hosted on a server and is accessible on any device with an active internet connection. The system is designed to be user-friendly and intuitive, with clear and concise instructions for all actions. It is not dependent on any other software and works on any browser.

2.2 Product Functions

DDF Management System Supports the following Use Cases.

2.2.1 Use Cases of Faculty

Class of Use Case	Description of Use Case
Authentication	User can enter the Account Credentials to login User can request to reset password
Profile	User can view profile details User can change password
Fund Request	User can raise a fund request
Public Fund Request	User can raise a Public Fund Request
Private Fund Request	User can raise a Private Fund Request
Dashboard	User can view their pending fund request's status

View details	User can track the request status
Inbox	User can view their request history
Upload	User can upload the images of the product details
Public Transactions	User can see all the public transactions made by other users

2.2.2 Use Cases of Committee

Class of Use Case	Description of Use Case
Authentication	User can enter the Account Credentials to login User can request to reset password
Profile	User can view profile User can change password
Dashboard	User can view the fund request of faculty
Inbox	User can view their decision history
All Transactions	User can view the overall budget transactions
Add Budget	User can add budget to DDF

2.2.3 Use Cases of HOD

Class of use case	Description of use case
Authentication	User can enter the Account Credentials to login User can request to reset password
Profile	User can view profile User can change password
Dashboard	User can view the response from the committee regarding the user request with the remarks of it.

Inbox	History of committee decisions on faculty requests and add budget requests
All Transactions	User can view the overall budget transactions

2.2.4 User Characteristics

- Any User using the website should know how the DDF Management System works.

- The Faculty should thoroughly check the fund request details before submitting all the mandatory areas to be filled.

- The Committee and HOD should have well-known knowledge about the Department's Fund management.

2.3 Principal Actors

The Principal actors in DDF Management system are Faculty, Committee, and HOD.

2.4 General Constraints

- The system requires active internet connection.

- The software supports only Single Committee and Single HOD.

2.5 Assumptions and Dependencies

- Committee, HOD approval is needed for fund sanction.

- Stable Network Connection is needed for proper working of the DDF Management system.

- The Faculty, Committee and HOD should have access to the internet and should be comfortable with using web-based applications.

- The Faculty, Committee, and HOD should have the necessary permissions and authority to use the system.

Chapter 3

Specific Requirements

3.1 Functional Requirements

3.1.1 General Use Cases

Primary Actors: Faculty,Committee, HOD

3.1.1.1 Create Account

Trigger: The User is trying to create a new account.
Pre Conditions: Internet Connectivity, Email Address
Basic Path:

- The User selects the create new account option.

- System prompts the user to enter the First Name, Last Name, and a valid Email ID.

- In the next step, the user must select a password, and the system registers him to the website.

Alternate Path:

- The Email ID entered by the user is invalid.

- There is already an account created with the given Email Address.

3.1.1.2 Log in to account

Trigger: The User is trying to sign in to an existing account.
Pre Conditions: Internet Connectivity, Email Address, Password
Basic Path:

- The User enters his account credentials (Email ID and Password) and clicks on the login button.

- The User is directed to their home page.

Alternate Path:

- The username entered by the user is invalid.

- The password entered is incorrect.

3.1.1.3 Forgot Password

Trigger: The User is trying to reset the password.
Pre Conditions: Internet Connectivity, Email Address
Basic Path:

- The User clicks on the 'Forgot Password' link.

- The system prompts the user to enter the email address.

- The password is sent to the registered email address.

Alternate Path:

- The email address entered by the user is invalid or unregistered.

3.1.1.4 View Profile

Trigger: The user is trying to view his profile details.
Pre Conditions: Internet Connectivity, Account credentials
Basic Path:

- The User clicks on the profile picture or icon.

- The user chooses the profile details option.

- The details of the user, namely First Name, Last Name, and registered email id are displayed.

3.1.1.5 Change Password

Trigger: The User is trying to change his account password.
Pre Conditions: Internet Connectivity, Account credentials.
Basic Path:

- The User clicks on the their account.

- The User chooses the change password option.

- The User is requested to enter the new password and re-confirm it.

- The password of the user for the existing account changes.

Alternate Path:

- Old password cannot be the new password.

- New Password and Confirm New Password do not match.

3.1.1.6 Log out

Trigger: The User is trying to sign out from their account.
Pre Conditions: Internet Connectivity, Account credentials.
Basic Path:

- The User clicks on their account.

- The User chooses the Log out option.

- The User is directed to the login page of the website.

3.1.2 Faculty Use Cases

Primary Actors: Faculty

3.1.2.1 Fund Request

Trigger: Faculty is trying to raise a fund request.
Pre Conditions: Faculty should have a registered account.
Basic Path:

- Faculty clicks on the "Fund Request" option on the home page.

- Faculty views two options: 1. Private Fund and 2. Public Fund.

- Faculty chooses the relevant option.

3.1.2.2 Private Fund Request

Trigger: Faculty is trying to make a Private Fund Request
Pre Conditions: Faculty should have a registered account and have chosen the Fund Request option.
Basic Path:

- Faculty clicks on the "Private Fund Request" option on the fund request page.

- Faculty is then redirected to a new page where faculty fills in the details about the fund request and submits it along with any remarks

- Once the faculty submits the request, this request is sent to the Committee Dashboard for their approval.

Alternate Path:

- Mandatory details are not filled and the request does not proceed.

- The Faculty exits the page without submitting the request and the request does not proceed.

3.1.2.3   Public Fund Request

Trigger: Faculty is trying to make a Public Fund Request
Pre Conditions: Faculty should have a registered account and have chosen the Fund Request option.
Basic Path:

- Faculty clicks on the "Public Fund Request" option on the fund request page.

- Faculty is then redirected to a new page where faculty fills in the details about the fund request, uploads documents/photos about the request and submits it along with any remarks.

- Once the faculty submits the request, this request is sent to the Committee Dashboard for their approval.

Alternate Path:

- Mandatory details are not filled and the request does not proceed.

- The Faculty exits the page without submitting the request and the request does not proceed.

- Uploaded document size cannot be more than five MB.

3.1.2.4   Upload

Trigger: Faculty is trying to upload necessary documents.
Pre Conditions: Faculty should have a registered account and click on the Fund Request.
Basic Path:

- Faculty clicks on the "Public/Private Fund Request" option on the fund request page.

- Faculty clicks on "upload" options and uploads the documents if necessary, before submitting the request.

Alternate Path:

- Uploaded document size cannot be more than five MB.

- The Faculty exits the page without submitting the request and the request does not proceed.

3.1.2.5   Dashboard

Trigger: The Faculty is trying to track their pending requests
Pre Conditions: Faculty should have a registered account.
Basic Path:

- Pending public/private requests raised by the faculty is visible on the dashboard.

- Faculty tracks the pending requests and their status.

- Each pending fund request has an option - "View request details".

3.1.2.6 Inbox

Trigger: Faculty is trying to view whole request history made by them.
Pre Conditions: Faculty should have a registered account.
Basic Path:

- The Faculty clicks the "Inbox" option, which directs the faculty to the inbox page.

- The page shows all the requests(public or private) made by the faculty.

- Each completed fund request has an option - "View request details" along with approval/disapproval status.

3.1.2.7 Public Transactions

Trigger: The Faculty is trying to view all public transactions.
Pre Conditions: Faculty should have a registered account.
Basic Path:

- Faculty clicks on the "Public Transactions" option on the home page.

- Faculty is then directed to a new page where the faculty views all the public requests made by all other faculty.

- Each fund request has an option - "View request details" along with approval/disapproval status.

3.1.3 Committee Use Cases

<u>**Primary Actors:**</u> Committee

3.1.3.1 Dashboard

Trigger: Committee is trying to view all the pending fund requests.
Pre Conditions: Committee should have a registered account.
Basic Path:

- Committee clicks on the "Dashboard" option.

- The Committee views all the pending fund requests made by the Faculty on the dashboard page.

- Each pending fund request has an option - "View request details".

3.1.3.2   View request details

Trigger: Committee is trying to view all the details of a fund request.
Pre Conditions: Committee should have a registered account.
Basic Path:

- Committee clicks on the "View request details" option.

- The Committee views whole details regarding a specific fund request.

- The Committee views two options - "Approve" or "Disapprove" and a section for any "remarks".

3.1.3.3   Approve

Trigger: Committee is trying to approve a fund request.
Pre Conditions: Committee should have a registered account.
Basic Path:

- Committee clicks on the "Approve" option.

- The pending request moves to Committee Inbox and adds to HOD Dashboard.

- The status of the pending request in the Faculty Dashboard updates to "Approved by committee."

3.1.3.4   Inbox

Trigger: Committee is trying to view all the previous completed requests
Pre Conditions: Committee should have a registered account.
Basic Path:

- Committee clicks on the "Inbox" option.

- The Committee views all the completed fund requests made by the Faculty along with approval/disapproval status.

- Each completed fund request has an option - "View request details".

3.1.3.5   Budget Transaction History

Trigger: Committee is trying to view the whole history of budget transactions.
Pre Conditions: Committee should have a registered account.
Basic Path:

- Committee clicks on the "Budget Transaction History" option.

- Committee views the whole summary of previous budget transactions along with the total balance of the department fund.

3.1.3.6   Add Fund

Trigger: Committee is trying to add budget sources to the department fund.
Pre Conditions: Committee should have a registered account.
Basic Path:

- Committee clicks on the "Add Fund" option.

- The System prompts the committee to enter details of the fund sources, and a submit button to submit the details.

- Budget Transaction history of Committee and HOD gets updated with the corresponding details.

3.1.4   HOD Use Cases

<u>**Primary Actors:**</u> HOD

3.1.4.1   Dashboard

Trigger: HOD is trying to view all the approved fund requests made by committee.
Pre Conditions: HOD should have a registered account.
Basic Path:

- HOD clicks on the "Dashboard" option.

- HOD views all the approved fund requests by committee, on the dashboard page.

- Each fund request has an option - "View request details".

3.1.4.2   View request details

Trigger: HOD is trying to view all the details of a fund request.
Pre Conditions: HOD should have a registered account.
Basic Path:

- HOD clicks on the "View request details" option.

- The HOD views whole details regarding a specific fund request.

- The HOD views two options - "Approve" or "Disapprove" and a section for any "remarks".

3.1.4.3 Approve

Trigger: HOD is trying to approve a fund request.
Pre Conditions: HOD should have a registered account.
Basic Path:

- HOD clicks on the "Approve" option.

- The pending request moves to Faculty Inbox and a mail is generated with details of the fund request to CSE Admin.

- The status of the pending request in the Faculty Dashboard updates to "Approved by HOD."

3.1.4.4 Inbox

Trigger: HOD is trying to view all the previous completed requests
Pre Conditions: HOD should have a registered account.
Basic Path:

- HOD clicks on the "Inbox" option.

- The HOD views all the completed fund requests made by the Faculty along with approval/disapproval status.

- Each completed fund request has an option - "View request details".

3.1.4.5 Budget Transaction History

Trigger: HOD is trying to view the whole history of budget transactions.
Pre Conditions: HOD should have a registered account.
Basic Path:

- HOD clicks on the "Budget Transaction History" option.

- HOD views the whole summary of previous budget transactions along with the total balance of the department fund.

3.2 Performance Requirements

- The system should have less response time with an active internet connection.

- The system should be able to handle a relative number of users at a time without experiencing any performance issues.

3.3   Design Constraints

- Faculty should only see information relevant to their own requests.

- Only the Committee and HOD can see all the requests made by the Faculty.

- The database must be protected from unauthorized access and threats.

- Data should not be corrupted under any event of hardware failure or system crash.

- The system should be designed to be user-friendly and easy to navigate for all the users.

- The system should be designed to be secure, with appropriate access controls and authorization limited to Committee and HOD.

- The system should be compatible with different browsers and operating systems.

3.4   External Interface Requirements

- The system should be able to generate transaction history details and export data in different formats, such as PDF or Excel.

- The system should be able to generate and send an email in specific use cases.

Chapter 4

Future Extensions

- A new feature - "minutes of meeting" can be added in faculty portal and after the approval of the "minutes of meeting" by HOD these points will be appeared in Faculty portal.

- Multiple Committees can use the software with separate logins credentials which is currently limited to only one Committee.

- A feature in which faculty can view the analysis of their expenditure as a pie chart.

- A Use Case in which faculty can send a remainder to the Committee.

- A feature in which system notifies the faculty whenever a fund request is approved/disapproved.

Chapter 5

Appendix

5.1   General Appendix

5.1.1   Login Page

5.1.2 View Profile

DASHBOARD	INBOX	PUBLIC TRANSACTIONS	NEW REQUEST	

Fund Request to buy furniture — view details
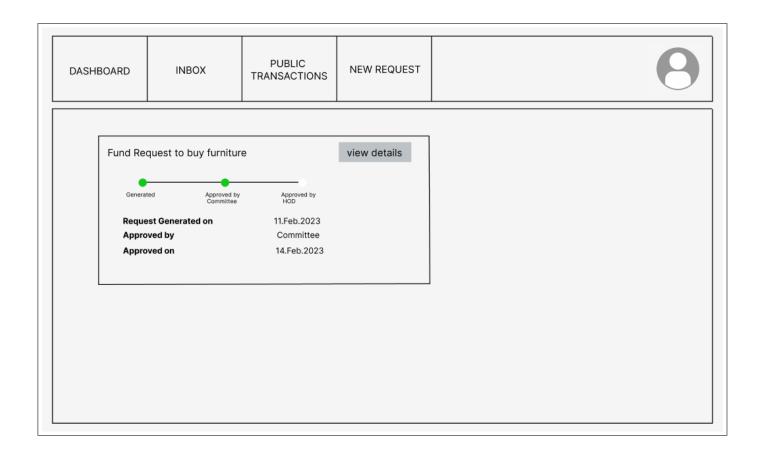
View Profile
Change Password
Log Out

5.2   Faculty Appendix

5.2.1   Faculty Home Page

5.2.2   Faculty View details Page

5.2.3 Faculty Request Page

5.2.4   Faculty Public Request Page
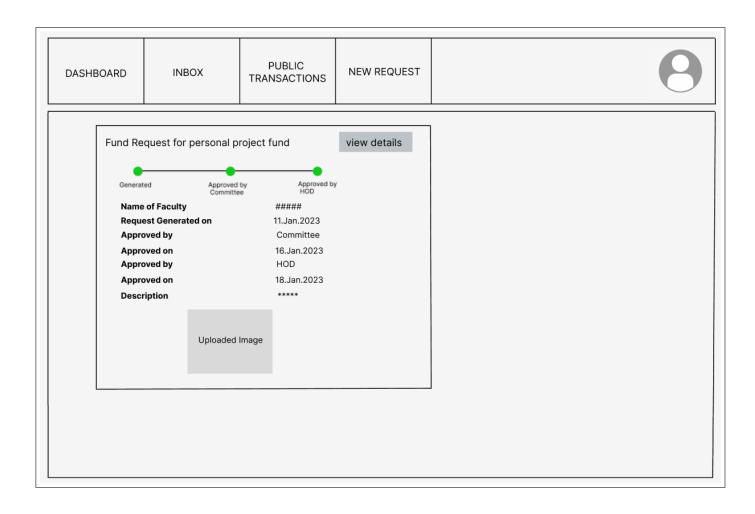
5.2.5   Faculty Private Request Page

5.2.6   Faculty Inbox

5.2.7 Faculty Public Transactions

5.3   Committee Appendix

5.3.1   Committee Home Page

5.3.2 Committee ADD Budget

5.4   HOD Appendix

5.4.1   HOD Home Page