

## Software Documentation

### System Overview

The application enables engineers to request funds for purchasing equipment when necessary. It includes workflows for manager approval, cashier payment, and accounts team verification, with status tracking and reporting. The application will integrate with payment gateways like Razorpay or Paytm for secure payments.

### Key Features

#### Fund Request and Approval Process

Engineers can submit fund requests for equipment purchases directly from the Engineer App.

#### Approval Workflow

Upon submission, the fund request is forwarded to a manager for review.

#### Payment Processing

After manager approval, the engineer can initiate a 'Pay Now' action.

#### Invoice and Bill Management

Engineers upload invoices and bills as proof of purchase.

#### Accounts Team Verification

The accounts team reviews uploaded invoices and bills.

#### Status and Tracking

Engineers can track all their requests and see current statuses.

#### Reporting and Summary

The portal generates comprehensive reports, including summaries of all fund requests.

#### Payment Gateway Integration

The system integrates with Razorpay or Paytm, providing a secure and efficient payment experience.

### User Roles and Permissions

1. Engineer: Request funds, view request status, upload invoices and bills.
2. Manager: Approve or adjust requested amounts, view all requests within their purview.
3. Cashier: Complete payment upon approval, update payment status.

4. Accounts Team: Verify invoices, approve expenses, and clear outstanding amounts.
5. Admin (optional): Oversee all activities and generate system-wide reports.

## Workflow Overview

1. Fund Request Submission (Engineer to Manager): Engineer submits a fund request with equipment details and amount.
2. Approval by Manager (Manager to Cashier): Manager reviews and approves the request.
3. Payment Processing (Cashier to Engineer): Engineer clicks 'Pay Now', triggering UPI payment to cashier.
4. Invoice Submission (Engineer to Accounts): Engineer uploads invoice as purchase proof.
5. Verification by Accounts Team: Accounts team verifies, marking request as cleared.
6. Reporting: System generates reports summarizing fund requests, approvals, and outstanding amounts.

## Technology Stack

- Frontend: Engineer App and Portal UI built using ReactJS (or any chosen framework).
- Backend: Node.js/Express server with MySQL for data storage.
- Payment Integration: Razorpay/Paytm Gateway for UPI payments.

## Status Codes

- Pending: Awaiting manager approval.
- Approved: Approved by the manager, pending payment.
- Payment in Process: Awaiting cashier payment.
- Payment Successful: Payment completed by cashier.
- Under Review: Uploaded invoice pending accounts team verification.
- Cleared: Approved by accounts, with outstanding amounts settled.