**Introduction**:

A financial system or management system is a system which role is to organize all company/shop day to day actions and maintain it for further retrieval and review.

Structure of financial systems:

**A financial system consists of some Basic elements:**

1. **Accounting tree**
   1. Accounting tree contains all system accounts and key nodes of cash flow, an account is like a wallet , a safe , sales account, customer , supplier or bank account
   2. Accounting tree could be built dynamic based on user needs to get low level details about cash flow in the company
2. **Daily Transactions**
   1. The actual day to day transaction from one account to another in the system , i.e. a customer buy an item , so a transaction from the sales to the customer account should be issued
3. **Helper records**
   1. Helper records represent non cash data like customer information or project description data
4. **Reports**
   1. All reports and formatted data to be requested by the user
5. **Extras**
   1. Any extra features like , file uploading or notifications

**Helper Record list:**

1. Customers
2. Suppliers
3. Invoices
4. Stock
5. Stock Transactions
6. Employee
7. Payroll
8. Installments
9. Projects
10. Units
11. Contracts

**Extras Records:**

1. Notifications
2. Messages
3. System users

Transaction List and effect:  
All transactions in the system with associated effect in accounting and Helper records.

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| **Create Supplier** | |
| **Financial** | 1. Create a new account for the supplier under the suppliers node in the accounting tree |
| **Helper** | 1. Create a new supplier in the supplier table |

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| **Edit supplier** | |
| **Financial** | 1. Update supplier node in the accounting tree with the new supplier name using the supplier ACCNumber field |
| **Helper** | 1. Update supplier data in the helper table |

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| **Supplier invoice (stock items)** | |
| **Financial** | 1. New entry from purchase with invoice total with note as purchase goods from Supplier 1 in date Date1 2. New entry for each supplier line with line total in account of the product with detail of purchase from Supplier1 in Date1 3. New entry for the supplier Debit with the invoice total |
| **Helper** | 1. Update item stock and increase it with the new amount for each line 2. Add a transaction for each line with the new amount 3. All stock transaction should use the stock ID assigned in the invoice |

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| **Remove invoice** | |
| **Financial** | 1. Remove from journal by DocID column |
| **Helper** | 1. For each line reverse the amount in the stock table by the location id 2. Remove from stock transaction by DocID |

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| **Edit Invoice** | |
| **Financial** | Delete invoice and create it again |
| **Helper** |  |

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| **Remove Tree Node** | |
| **Financial** | 1. Update all journal entry to its parent node 2. Delete node |
| **Helper** |  |

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| **Journal Transaction / edit or remove** | |
| **Financial** | 1. Direct transaction no back effect |
| **Helper** |  |

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| **Create Project** | |
| **Financial** | 1. Create node under pending projects |
| **Helper** | 1. Create project in project records 2. For each product , create a new stock entry for the project with qty 0 |

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| **Create Category** | |
| **Financial** | Create a node under stock |
| **Helper** | Create it in category helper |

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| **Create Item** | |
| **Financial** | 1. Create a node under category in the account tree |
| **Helper** | 1. Create it in product helper 2. Create a record in the stock for each project with 0 Qty |

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| **Edit project** | |
| **Financial** | Edit the project name in the tree using AccID in the project object |
| **Helper** |  |

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| **Work order** | |
| **Financial** | 1. Add a record for the project or unit or any node with the line total for each line |
| **Helper** | 1. Update stock qty for each line with the amount in the lint 2. Add a stock transaction for the location with the qty for each line |

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| **Edit Item** | |
| **Financial** | Change its name on the accounting tree |
| **Helper** |  |

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| **Edit Category** | |
| **Financial** | Change its name on the accounting tree |
| **Helper** |  |

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| **Delete Item** | |
| **Financial** | Close the account in the accounting tree |
| **Helper** | Delete it |

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| **Delete Category** | |
| **Financial** | Close the account in the accounting tree |
| **Helper** | Delete it |

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| **Customer Invoice** | |
| **Financial** | 1. New entry from sales with the invoice total 2. new entry for the customer account with the amount |
| **Helper** | 1. for each line create a new stock transaction with the value out 2. for each line loop on the stock and lower the Qty by the sold item in the invoice location |

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| **Delete Customer Invoice** | |
| **Financial** | 1. delete from transactions with the invoice number |
| **Helper** | 1. delete from stock with the invoice number |

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| **Edit Customer Invoice** | |
| **Financial** | Delete and recreate |
| **Helper** |  |

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| **Create Customer** | |
| **Financial** | Create a node in the accounting tree under dynamic assets |
| **Helper** | Create customer object |

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| **Edit Customer** | |
| **Financial** | Update name in the accounting tree |
| **Helper** |  |

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| **Delete Customer** | |
| **Financial** | Close account in the tree |
| **Helper** | Delete |

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| **Create Employee** | |
| **Financial** | Create a node in the accounting tree under employee  Create a node in the accounting tree under Imprestes |
| **Helper** |  |

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| **Delete Employee** | |
| **Financial** | Close employee both accounts in accounting tree |
| **Helper** | -delete employee |

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| **Edit Employee** | |
| **Financial** | Update both nodes in the accounting tree |
| **Helper** |  |

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| **Create penalty** | |
| **Financial** |  |
| **Helper** | Create entry in the payroll table |

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| **Create Benefit** | |
| **Financial** |  |
| **Helper** | Create entry in the payroll table |

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| **Add Imprest** | |
| **Financial** | -add a transaction from pay account  -add transaction from the imprest account |
| **Helper** |  |

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| **Reset Imprest** | |
| **Financial** | Add a transaction to the impreset to make its balance = 0  Add a transaction to the receivable account with the amount |
| **Helper** |  |

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| **Calculate salaries** | |
| **Financial** | -for each employee calculate current period salaries based on his payment period  -get payroll transaction sum in this period  -calculate exact salary and add it for the employee account |
| **Helper** |  |

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| **Pay salary salaries** | |
| **Financial** | Create a transaction from payment account to the employee account with the salary |
| **Helper** |  |

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| **Delete from payroll** | |
| **Financial** | - |
| **Helper** | -delete from the payroll only if the employee salaries of the period dose not paid |

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| **Create contract** | |
| **Financial** | -create due amount on the main customer account of the hole price  -create a deposit amount from the customer for the front payment  -create a sales amount of the hole price  -create a case amount of the front payment  -create amount on the unit as sold |
| **Helper** | -create a new installment for each installment  -create contract  -mark unit as sold |

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| **Delete contract** | |
| **Financial** | Delete from transaction by contract ID and type |
| **Helper** | Delete from installment by contract id  Set unit as free |

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| **Edit contract** | |
| **Financial** | Delete and re create |
| **Helper** |  |

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| **Pay Installment** | |
| **Financial** | Create amount for the customer  Create amount to the receivable account |
| **Helper** | Update the installment status and payment date |

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| **Edit installment** | |
| **Financial** | -update contract total amount in the transaction  -if the amount increased add transaction or vise verse |
| **Helper** | -can not edit paid installments  -update the installment  -update the contract totals |

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| **Delete installment** | |
| **Financial** | -update contract total amount in the transaction  -if the amount increased add transaction or vise verse |
| **Helper** | -can not edit paid installments  -update the installment  -update the contract totals |

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Add Any Transaction in the system:

1. create the transaction
2. update the node balance
3. update the parent balance using recurjant function