

Accounting System

Group ID: 5

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Title: Database for keeping track of all the financial transaction of companies

Scope of Database:

Accounting system is a type of system that gives convenience in daily accounting works. It is simple, easy to use, hassle free, time efficient and cost-effective. It will drastically improve the workflow. It saves business costs on paperwork. Businesses and customers can reduce paper dependency, making transactions and records easily accessible.

It records and processes accounting transactions such as accounts payable, accounts receivable, journal, general ledger, trial balance and daily reports. It prepares various final statements like trading account, profit and loss account and balance sheets. It also rectifies the errors and tests the total and balances the amount of ledger. A company's book and its accounts will only be accessible to someone after proper authentication. However, our system would not be able to calculate Accounting ratios, record transactions regarding purchase returns, sales returns and automatic input of recurring transactions won't be handled by the system. Also, the system won't be able to get a company's information automatically using the GST number. The system won't be able to make GST/TDS payments and filings automatically.

Description/Requirements:

1. There can be multiple companies in an Accounting Database, each company will have its separate books and transactions. Also, each company will have its details like Company Name, GSTIN Number, Contact Number, Address, Pincode, Company Logo. Each Company's books can only be accessed and modified after authorising itself. And Every company will be uniquely identified by its company code.
2. Each company will create its own set of accounts like Rent, Sales, Debtors. And each account will store details like which company it belongs to, Account Name, if it has an opening balance and account type.
3. Each company can have one or more accounts and each account will be associated with one company.
4. Each Account will belong to only one Account Group and one Account Group will have one or more accounts under it.

5. The Account Group specifies the behaviour of the Account like the Header type [that is Debit or Credit Header] and where that account belongs in the final statements, that is Trading a/c, Profit and Loss a/c or Balance Sheet and Account Group Name. Also each Group is uniquely identifiable by its AccountGroupId.
6. There will be built-in Account Groups that covers most of the domains, but if the user wants (s)he can add its custom Account Group by specifying the Account Group Name, Header Type [that is Debit or Credit Header] and in which part of the statement that Group will be shown.
7. Item Group specifies the category of an item like clothing, electronics etc. The Item Group will store details like unique code and GroupName.
8. The company will have to add items with which it deals and each item will have details like Item Name, Price, Barcode and its existing quantity.
9. Each item will belong to one item group and Each item group will have zero or more items.
10. Every monetary transaction made by a company is recorded in a FinancialTransaction table, with the date amount and account id involved in that transaction.
11. Also for each transaction made by a company there will be two entries made in the database as Accounting is a double entry system. With the negative effect recorded as a negative amount.
12. Each company may have one or more financial transactions and each transaction may belong to only one company.
13. Each transaction will belong to only one account and each account will have multiple transactions.
14. Companies can generate Sales Invoice using the system, with the basic details like to which account the sales was made, the total amount, the date of transaction and Invoice-number.
15. Each sale in Sales Invoice will be associated with one account and one account may have multiple occurrences in Sales Invoice.
16. The Details of each item sold in each sales invoice is stored in Sold Items where each item sold is recorded with its quantity and rate.
17. Each item stored in Sold Items will belong to one Sales Invoice and each Sales invoice may include multiple Sold items.
18. Companies can generate Purchase Receipts using the system, with the basic details like to which account the purchase was made, the total amount, date of transaction and Receipt-number.
19. Each purchase in Purchase Invoice will be associated with one account and one account may have multiple occurrences in Purchase Invoice.
20. The Details of each item purchased in each receipt is stored in Purchased Items where each item purchased is recorded with its quantity and rate.
21. Each item stored in Purchased Items will belong to one Purchase Receipt and each Purchase Receipt may include multiple Purchased items.
22. The system is also capable of generating Ledgers of the financial transactions made.
23. It is also capable of generating the Final Books/Statement.

Queries:

1. Given a date each company can retrieve the financial transactions of that particular date.
2. Each company can retrieve all the personal accounts that are associated with it.
3. Create a Sales invoice.
4. Create a Purchase receipt.
5. Retrieve any invoice by their bill number.

6. Retrieve any receipt by their receipt number.
7. Can retrieve details of the purchase made on a particular day.
8. Can retrieve details of the sales made on a particular day.
9. Can retrieve details of the purchases whose amount is between a given range.
10. Can retrieve details of the sales whose amount is between a given range.
11. Can show the position of all the accounts of a given account group of a given company.
Like showing the value of all the assets.
12. List all the Journal Entries of a given Financial Year.
13. Retrieve any given ledger account of a particular company.
14. Display all the Ledger of a company.
15. Calculate the profit or loss of a company of a given year.
16. Find the highest profit made by the company in the given range of years.
17. Prepare the final statement of a given company for a given year.
18. Rank companies based on their Net Profit.
19. Show the complete accounting process from Journal Entry to Balance Sheet.