Data Management for Analytics

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PML is a metal company planning to open a new manufacturing plant in India. The company needs a database system to store all its master and transaction data.

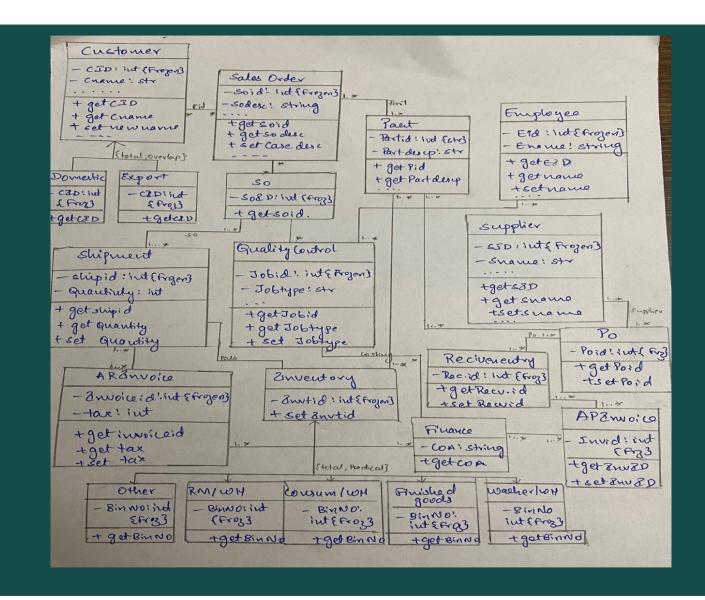
Two business flow of any ERP software are:

1) Procure to pay:

2) Quote to Cash:

EER Diagram CID Cname Credit hold Adress Tax so_id Rate Quantity so_descp EID Ename Eadress EDesgn Bank detail details 0.N 0.M Sales order Customer Employee Partid 1.N PAN no Pdesp J 1.N Part_id Amount Ship date Pay_type POC Ptype Credit day Pclass CID Part Sadress 1.N SID 45Days 30Days 1.N 15Days SOID Poc soid Pnetweight Revision Supplier GST no 0 Pym type Job_id Job type quantity Emp_id Bank Ship date detail Domestic Export 1.N/ Stype Tax Start time Down SID Quality control Partid (End time Quantity Job_status Inspect Mec time Total amt ship id bin Po Quantity 1.N Shipment Rec id 1.N (inspec Amount Inventory pass 1.N Quantity shipped Recive 0.N inspection Total_amt Entry ship_id d Costing recv to invt 1.N inv_status Inv_status recv id AP Invoice id RM / WH Consum/WH Finished Washer/WH invoice 0.N Other goods Finance AR invoice AP invoice tax BIN no BIN no BIN no BIN no BIN no 1.N 1.N total_amt Tax COA Invoice id Total amt customics this ERD: 1. Double-click on any Invoice id text in an entity BS Invoice id STA shape and add/edit

UML Diagram





- 1. Find sales order id, customer id, part id, ship id, invoice id and total amount with sales description whose letter or number start with "1%".
- 2. Find PO ID, Part ID and Quantity using purchase order and describe the duration of quantity that should be completed in one to five days using case when
- 3. Find supplier id, supplier name, payment type and tax whose purchase order rate is less than equal to 500



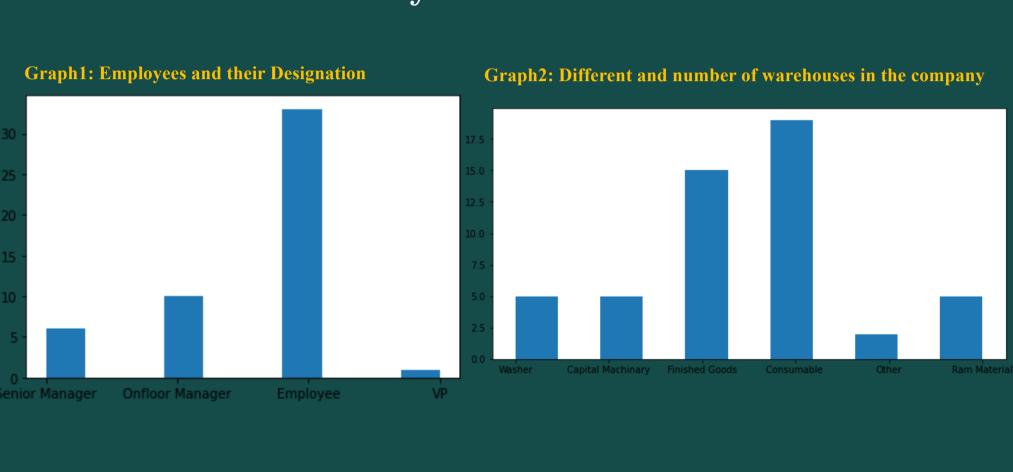
NOSQL Implementation

Find customer those tax is 28 and ship id is 4

Find customers with total amount more than 50000

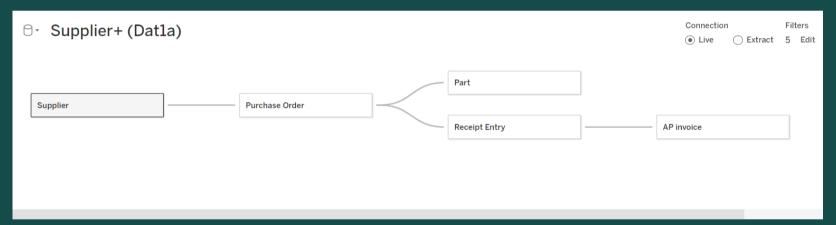
Using Aggregate function find the invoice and total amount which is sorted by total amount = 1.

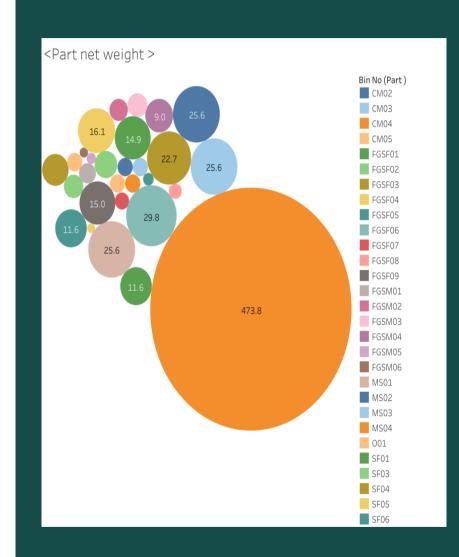
Database access Via Python

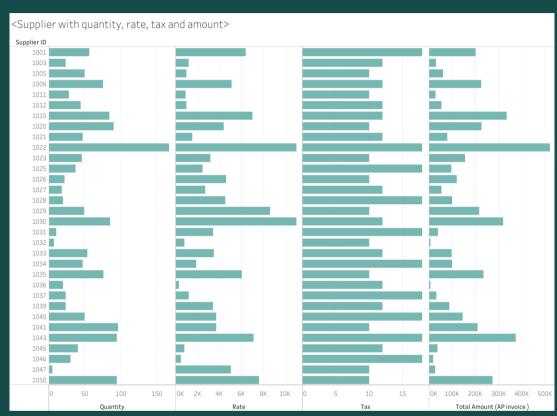


Tableau

Connected procure to pay that is Supplier to AP invoice.







Recommendation



The focus was on a metal company but it's a good ERP software for all the manufacture company, who are planning to start a new manufacturing plant.



Adding finance module to the software which is currently not mapped but are designed in the eer and uml mode will bring a light to the software. Specially mapping the accounting system like chart of account, balance sheet, GL control and profit and loss statements etc. will enrich this ERP software can be used by any manufacturing