CLIENT:
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INTRODUCTION:
A system for managing the sales of the firm, Arkayson - Jaipur, is required. Arkayson is a firm that deals in clothing items which broadly includes two categories - Kurtis and Palazzos. The Invoices of several parties are to be generated which would contain the necessary details of the shipping party, the receiving party and the products which are to be shipped. Product details and Party details are to be maintained separately. There has to be a way to manage the Stocks - showing the number of products manufactured, quantity of products which is sold and stock left. The Payment details for respective parties and invoices are also to be stored. Details about settling corresponding invoices should also be maintained. The client should be able to filter and sort the data easily based on a variety of constraints on individual invoices and party details.

DATABASE REQUIREMENTS:
Each **Party** should contain a firm name, the address, contact number(s), e-mail(s) and the unique GSTIN number with which the party is registered. Each party should also contain an agent name, through which the party is contacted. In the case of no agents, "Direct" needs to be written. The address should be a four-line address, with the first two lines containing details like flat number, house number, street name and a landmark (if any). The third line of the address should include the city name and the PIN code, and the last line should contain the state name and the country name. In case of Indian states, the state name should be accompanied by the unique state code, also called the TIN of the state.

The **Products** are divided into two broad categories - Kurtis and Palazzos. The product should contain a unique product ID (to be assigned by the client himself), the product name, the category (Kurti or Palazzo), description, the cost price, sizes available, and colors available. The description of the product is an optional field, and it just contains any special details about a product. Each **Category** has a unique HSN code which is to be mentioned in the

invoice. All the products under a category have the same HSN code. The product ID is ten characters long string - the first four containing the HSN code, and the rest containing alphanumeric characters assigned by the client to each product. The sizes can contain multiple values and its domain is restricted to six sizes which are - S, M, L, XL, 2XL, and 3XL. The product is sold as a complete set of the specified sizes and the sizes once specified for a particular product will remain the same afterwards also.

The **Colors** field should contain a list of colors which are available for the product. The color of the product should contain a color code (a five character long string containing alphabets), an RGB value, and a color name. The color code is assigned by the client himself.

The **Stocks** of each product is to be maintained. The stocks should contain details about the quantity of the manufactured products and the date of manufacture. The client should be able to view the total quantity of manufacture, the total quantity which is sold out and the stock left for each product. The date-wise manufacture of the products should also store instead of the total quantity. Each manufactured product entry should contain a unique ID which is to be auto-generated.

The **Invoices** have to be carefully designed, should mandatorily contain certain details, and should adhere to the standard format. The invoice must contain an invoice number and the date of issuing. The number should be auto-generated and should be unique for each invoice. The invoice should contain the complete details of both the shipping firm (i.e. the details of the client) and the receiving firms (the party). The details must include the firm name, the GSTIN number, the complete address (including house details, city name, PIN code, state name and the state code), contact number (at least one), email address, and the country name. The E-Way bill number should be mentioned if the total amount of the invoice is greater than or equal to 50,000 INR. The E-Way bill number is given by the client and need not be auto-generated. The transportation details like the company name (through), vehicle details, and lorry receipt number may also be included.

The invoice should contain the detailed **Product List** which is bought by the party. The product list in the invoice should mention the product name and the category, the HSN number of the category, the quantity bought, the rate at which the product is sold, and the net amount per product. The invoice

should also contain freight charges or discounts, if applicable. It is mandatory to mention the net taxable value. The taxes applied should be mentioned appropriately. It is mandatory to mention the rates along with the name of the tax. For example, IGST @ 5%. The grand total should be mentioned which is derived by applying the taxes on the "net taxable value". The grand total should be rounded off to an integral value appropriately. The rounded total should also be mentioned in words in the invoice. Each invoice must also contain a "cleared" field representing whether or not the payment for the invoice is made.

The system should maintain the **Payment** details of the parties for the respective invoices. Each payment should maintain the total amount paid, the party, the date of payment and method of payment. The payment should have a unique ID which is to be auto-generated. The payment should be related to the invoices settled by it. The mode of payment should be either cash or an online transaction. One payment can settle many pending invoices completely. An invoice is settled completely by a single payment, i.e. it is not partially paid. There is never an advance payment or a balance left for a particular payment. That means the payment is done only after generation of an invoice and payments are done to completely clear the invoices.

WEBSITE REQUIREMENTS:
The portal needs to have an authentication system, the credentials of which should be known only to the client. There should be a facility of changing the password.

The client should be able to filter products based on categories, sizes and colors. He should be able to get the products based by simply searching for the product ID, name and description. There should be a facility to view party details based on specific cities and states. He should be able to view the products' stock details which include the quantity manufactures, quantity sold and the stock left.

The payments to the firm are done either offline (by cash) or via an online transaction. The only details to be saved are the total amount paid, the party, the date of payment and the method of payment (cash or an online transaction). The actual payment will be handled by the client himself and he will manually create records for payments. Each payment should be completely and appropriately bifurcated to show the invoices it settles. The

details about pending invoices should also be shown. Pending invoice should be displayed prior to the settled ones, with invoices with longer due time to be shown prior to the latest ones. The cleared invoices to be shown in the "latest-first" ordering scheme.

The site should contain various other filters in order to filter the invoices based on the invoice date, the amount of the invoice, the products sold, and the parties for which the invoice is generated. The profits on particular invoices should also be displayed. The profits should be based on the cost price provided for the product. The client should be able to view the total of various attributes based on the filters applied. The total feature should be applied to fields like the taxable value, grand total, the quantity, and the profits.

The invoices that are generated should be of a tabular format and should be containing all the mandatory fields to be considered valid. The mandatory fields include issuing date, the unique invoice number, the shipping firm's and receiving firm's address, product details including quantity, rate and HSN values, the total quantity, the subtotal, discounts and freight charges (if applicable), the taxable value, taxes with specifies rates, grand total and rounded total. There should be two copies that are generated for the same invoice - an original copy for the recipient, and a duplicate copy for reference purposes.