1. LOGIN AND GUI

There has to be multiple user platforms with multiple privileges. Basically, there will be three type of users.

As shown on New Customer page explanation GUI must have in upper right corner the name of the user and current time and date.

2. NEW CUSTOMER SECTION

Search section is made from ID and Customer name. When clicked on customer name it should either have an auto-complete option or we would have an pop-up window where we could see table with all the customers and on the top search and then select customer. The purpose of this is when we have to search some data about the customer and/or modify some details.

Customer ID is a number which we will add manually (it will correspondent with our accounting program).

Everything else are just input fields.

3. NEW PRODUCT

As in the NEW CUSTOMER page, there must be a search option at product section. Principle of working is exactly the same.

“New product ID” is manually added (not auto-generated) because we are using that from accounting program. “Customer name” must be in that way that we can select multiple customers. This is because one product can be used by many customers. “Product name” is the name which we are typing manually. It should be allowed to input 40 characters.

“Similar product” is a button which should when clicked open a pop-up window where we could search for certain product (it should be search field above table and columns: “Customer”, “Product name”). When product is selected all the data regarding that product should filled in our new product. This is helpful when we need a new product with just a slight correction.

“Box inner dimensions”, “Stacked Pallet dimensions”, “Pallet type”, “Number of pieces on pallet”are just regular text fields.

“Product is part of product set” is a check option for products which are part of some bigger set. When this option is checked, “Input data” button is enabled. Here we need a pop-up window to input data regarding “Set name”, “Quantity per set”. “Set name” could be either drop-drown menu or some other search option to select already created product sets in section 4 (“NEW PRODUCT SET”). Table containing data should be flexible about number of rows. We must have columns with link to “Modify” or “Delete” the record.

“Product requires safety stock” is an option that enables text box when clicked. It will be used after to compare whether we are missing some important product or not.

“Attach file” altogether with “Browse” button serves to upload important drawing about print and everything else needed. It will be 99% PDF or JPEG format. It just has to be in a form of link so when clicked we can open that file. There must be a table in order to be able to delete uploaded file.

“Product contains colors” is an option when clicked “Input” opens a pop-up to select already defined colors in section “COLORS”. It must also have “Modify” and “Delete” option.

“Printing plates” are not defined before and we are making product plate IDS. “Die Cuts” are the same principle.

Then we will have options “Type of stretch foil”, “Type of pp strip” and “Type of PET strip” which are regular text fields.

Then we will have an option to input technical/technological process. It must have and option to pop-up. “Order” is a number which will represent which sequence to follow (we can’t glue some boxes without printing and die cutting them). “Process name” is the name of machine or process. Time is calculated “Number of pieces” per minute. We must have an option to input number of employees required. For manual work will put letter “o” so after when putting work order we can decide how many people we want to give so we could reduce time of production. “Modify” and “Delete” is the must have option.

“Bill of material” is a must have option with again table sort of inputting. Maybe we do not need pop-up, we could maybe make it in a table on this page but we must have an option to add multiple rows and expand table.

Every column is this table is manually added except “Supplier” which we choose from SUPPLIER SECTION. Column “Default” is there because we have situations when we order same material from the same supplier but in different quality. This lives us option when making sales order to select a different quality of product.

At the end we must have buttons to “Save new record”, “Save modified” and “Cancel all filled data.

4. **NEW PRODUCT SET**

It must contain “Search” section as every other page.

Then there is data about “ID” and “Product set name”. “Customer name” is a user of product set and there must be link between “Customer name” (Section number 3) so that when we select that one customer is a user of product set then all the products in that set must add that customer in “Customer name” selection in Section number 3.

Check box “Requires external parts” is option that enables specifying external elements that go with product set and also under it we must have an option to “Attach file” regarding product set.

5. **NEW SUPPLIER**

It must contain “Search” section as every other page.

Basic data input for the “Supplier name” and “Supplier ID” which are going to be added manually.

It must contain “Supplier short code”.

Regular Save/Edit buttons

6. **PRODUCT SETS**

This is section in which all product sets are stored. It must have an search option so that when we type name of the set we will see the table of all products in that particular set.

Underneath section for searching, we will have a calculation that will give us a number of products required for desired number of selected set.

7. **COLORS**

This section will consist of three text boxes describing “Color name”, “Color group” and “Customer for that particular color.

It will have a table showing every registered color and columns where edit and delete buttons will be placed. This table must have sort options.

8. **MACHINES/PROCESSES**

This section will contain text box to input new process or machine and it will contain table in which we can see all the machines with option to delete one of them

9. **NEW SALES ORDER**

This section must contain following data:

1. “Sales order ID” – auto generated ID
2. “Customer name” – Source section 2.
3. “Product name” – Source section 3.
4. “Different quality” – when this option is checked it leaves us option to choose different quality then standard
5. “Quantity” – quantity desired by customer
6. “Order receive date” – Day of input as default
7. “Date when to finish production” – Date field
8. Priority – number field by which we can see how flexible is “finish production date”
9. Notes – data about some special requests
10. Sales person – auto generated by the user who was logged in

When button “Save” is clicked it will then automatically send data to “Purchase order”.

There must be “Delete order” button in order to cancel sales order. This will automatically delete it from list in purchase orders.

If we are ordering product set then application should automatically put to “New purchase order” every material which is part of that set. This can be collected combining product description and product sets database. Maybe it is better to add one separate text box for ordering sets where, when clicked, it will pop-up window where we could select each material needed for set and which leaves us option to choose it in different quality then default. Also this leaves us option if we want to lower quantity of some product from set.

Date formats must be DD/MM/YYYY.

11. NEW PURCHASE ORDER

This section regards purchasing raw materials from our suppliers and it will collect data from “Sales orders”.

It will be table with following columns:

1. “Sales order ID” – collected from sales order
2. “Customer name” - collected from sales order
3. “Product name” - collected from sales order
4. “Sales order receive date” - collected from sales order
5. “Requested delivery date” - collected from sales order
6. “Priority” - collected from sales order
7. “Ordered quantity” - collected from sales order
8. “Quantity to order” – inputted manually
9. “Note” – some additional text
10. “Supplier” – selection from suppliers list
11. “Current status” – opening a window which will described after
12. “Select to order” – check box to select which product to order
13. “Purchase order ID” – It will be in format “Supplier short code” + ”-“ + ”Purchase order ID”.

This is table where all the orders are gathered and where we decide which products (materials) we want to order. After entering desired quantities we will send a purchase order.

“Current status” will be a link in the table which will lead to a new window showing all the data regarding selected product. So first we will have “Current product” which will represent the product we are looking to purchase materials to. After that we will have a table in which we could check for which supplier we want to see details. Active orders would be all orders that are purchased but not yet produced (we will control that through our next section). Material on stock will be table showing data about how many pieces of select product (material) we have at our supplier stock. “Material quantity at

our stock" will read data from "Our Stock". The same is for "Finished products at our stock". "Total uncompleted orders" will be the sum of all sales orders which are not marked as completed.

Also, underneath all this info in pop-up window we will have information about how many pieces of selected product has been ordered through selected period of time (default period – one month) and what is surface value in m2. And additional feature would be to calculate, when we enter number of pieces, which surface in m2 will that quantity take.

When we know how many pieces we want to order we will then generate purchase order containing data as seen in a purchase order example document that I have sent. Be aware that "Order quantity" and "Quantity to order" will be in pieces of product but when generating purchase order that must be converted to a number of pieces (we will get that from by dividing ordered quantity and "Pieces in sheet" from product specification). "Purchase order ID" is generated after we generate purchase order and that is because we have different products sent altogether on one purchase order.

12. SUPPLIERS PRODUCTION PLAN

This will be data inputted manually for every supplier on a daily basis. We must enter data about which products are on a daily plan. We must have separate section in window for every supplier. We must have following text fields here:

1. Product
2. Quantity
3. Production time

There must be an option to enter planned quality production for whole week.

13. URGENT PRODUCTION

In this section there must be an option to import table ("Purchased but not produced.rtf" document). Our supplier sends us this document almost every day and it regards purchased materials but not yet produced at their plant. From this list (according to their production schedule which is quality oriented) we choose the materials for products which we need in next few days (which are the most urgent for us) and send them a list of these products. Then they try to find a way to produce this materials quicker. In this page we will have a table columns: Product name, Product quality, Quantity to produce, Date of input, Quantity that is urgent and Priority.

Product name is not included in excel file and must be read by combining data about quality and dimensions and purchase orders.

Product quality is read from document.

Quantity to produce is also read from import document. The same is for the Date of input.

Quantity that is urgent and Priority are text fields in table in which we are entering desired values.

There must be option to sort table by selected column.

After selecting which materials we want to mark as urgent we send a report like “Urgent production list example.pdf”.

Under the table there must be and option to manually make a list of urgent production with 10 opened text fields with same column/row structure as auto-generated table.

14. PURCHASE ORDER LIST

This section will gather data from purchase orders and here we are waiting

This section will contain table showing the following columns:

1. Product name – collects all active purchases of one product at one row. By active purchases I mean purchases of materials which are ordered but not yet produced. For example if one sales person sells and then orders 5000 pieces of product “P1”, second one 3000 pcs of “P1” and third one 1500 pcs of products “P1” they will order materials every each of them for himself. In purchase order list we will see only “P1” and 9500 pcs in row, not separately. This will be of course done only for the same suppliers, we cannot combine different suppliers.
2. Supplier name – collected from new product section
3. Material width – collected from new product section
4. Material length - collected from new product section
5. Quality of material - collected from new product section
6. Purchased quantity – it will be seen in sheets number of material
7. Produced quantity – this field will be filled in with data imported from “Stock list” excel file or manually inputted
8. Date of production
9. Send to material to stock- check option whether to send produced quality to stock or not.
10. Order is finished – select option to make this order finished by our supplier.
11. Modify or cancel order – If we want to cancel active order or modify active order there must be a link opening a new pop-up with will be in a form of table containing all the data as in purchase order list with additional column to enter new quantity to order (if we enter 0 the supplier would know that we are canceling order). We will then have an option to generate a new document in PDF containing exact same data as purchase order but in header would have “Correction of purchase order (number of purchase order)”. When this is sent purchase order list will be updated.

Button “Send to suppliers stock” when clicked will send checked “Send to material stock” products with quantity inputted in “Produced quantity”. When “Order is finished” is checked this purchase order will be automatically sent in table which is under active orders table on the same page. This table will contain all purchase orders but can only be searched, not edited.

Button “Import quantities from Stock list” will have browse option to open excel file received from our supplier. It will search and compare dimensions and quality with 0 days on stock and update quantity.

15. SUPPLIER STOCK

This section will receive data sent from purchase order list when we press button “Send to supplier stock”. It will contain following columns:

1. Product name – collected from purchase order list that we have sent
2. Pieces on stock – collected and filled from purchase order list
3. Supplier - collected and filled from purchase order list
4. Pieces to load – manually typed number of pieces we want to load
5. Load all from stock – check option to load all pieces
6. Sequence – we will chose in which order will materials be loaded on truck. We are doing this by adding number so when loading plan is generated it will put rows in increasing sequence.
7. Truck – here we select on which truck will this be loaded (drop-down or some other way)
8. Send directly to receive list – this is option left for specific situations when truck could be loaded over phone so we can send to receive list every material from table. First we select truck so it will now in which truck it is loaded.

Every row in stock item must be separately inserted every time we send data from “Purchase order list” even if it is the same product. Or if we could make the option to collect quantity for one specific product (still separated by supplier) but be able to click and expand to see every stock input.

Option to input trucks will serve for calculations of truck loading and also report sending. Calculations will be done combining what we want to load, material quality and truck capacity. I have an excel formulas and I will provide it to you when your reach this point.

Every truck loading plan must be

We must add button “Add material manually” which will leave us option to add some materials which did not go through sales order and purchase process (this happens when we allow our supplier to produce some quantity of material which we do not really need right now but it good for their production process to lower costs).

When button “Send loading plan is clicked” loaded quantities will be automatically subtracted from stock list.

16. OUR MATERIAL STOCK

On the start of this page there has to be loading list which will be collected from section 15. when loading plan of truck is sent. This will allow us when materials arrive to check their quantity and put them to our stock.

We have to have three buttons here. “Confirm received” allow us to send materials to our stock material. “Send rest to stock” serves for situations where we had some value in plan of loading and in the truck is different one. This button then enables us to send materials back to stock so we will have real situation there. “Send all back to stock” will enable us to send whole loading plan to stock because we have situations where we send our loading plan to our supplier but we want to change it until truck is not yet at the place of loading.

When we receive materials they will appear in “Our stock” list with columns “Product”, “Quantity” and “Supplier”.

UNFINISHED

1. There will be option to take material from our stock and make it to final goods (this happens when we have produced final products). We will then have option to fill completed sale order. Also there will be delivery plan so the stock department at our plant knows when to plan transport and pic-ups.
2. We will include some additional reports regarding sales and production.