Documentation Catering Point Of Sale. (POS)

Screenshot mainscreen.

Database structure catering:

```
catering=# \d
              List of relations
 Schema |         Name          | Type  |  Owner
--------+-----------------------+-------+----------
 public | additional            | table | postgres
 public | article_grouplines    | table | postgres
 public | articles              | table | postgres
 public | buttons               | table | postgres
 public | clients               | table | postgres
 public | employees             | table | postgres
 public | groupbuttons          | table | postgres
 public | invoices              | table | postgres
 public | loss                  | table | postgres
 public | order_lines           | table | postgres
 public | params                | table | postgres
 public | payments              | table | postgres
 public | purchase_orderlines   | table | postgres
 public | sales                 | table | postgres
 public | suppliers             | table | postgres
 public | tables_layout         | table | postgres
```

```
catering=# \d additional
                              Table "public.additional"
      Column       |         Type          | Collation | Nullable |        Default
-------------------+-----------------------+-----------+----------+-----------------------
 addID             | integer               |           | not null |
 barcode           | character varying(13) |           |          | ''::character varying
 description       | character varying(13) |           |          | ''::character varying
 item_price        | double precision      |           |          | 0
 number            | double precision      |           |          | 0
 item_unit         | character varying(16) |           |          | ''::character varying
 article_group     | character varying(40) |           |          | ''::character varying
 location_warehouse | character varying(8)  |           |          | ''::character varying
Indexes:
    "additional_pkey" PRIMARY KEY, btree ("addID")
```

```
catering=# \d article_grouplines
                         Table "public.article_grouplines"
    Column     |         Type          | Collation | Nullable |        Default
---------------+-----------------------+-----------+----------+-----------------------
 lineID        | integer               |           | not null | 0
 grouplinetext | character varying(40) |           |          | ''::character varying
Indexes:
    "article_grouplines_pkey" PRIMARY KEY, btree ("lineID")
```

```
catering=# \d articles
                                  Table "public.articles"
       Column        |         Type          | Collation | Nullable |          Default
---------------------+-----------------------+-----------+----------+---------------------------
 barcode             | character varying(13) |           | not null |
 description         | character varying(50) |           |          | ''::character varying
 item_price          | double precision      |           |          | 0
 item_stock          | double precision      |           |          | 0
 item_unit           | character varying(16) |           |          | ''::character varying
 minimum_stock       | double precision      |           |          | 0
 order_size          | double precision      |           |          | 0
 location_warehouse  | character varying(8)  |           |          | ''::character varying
 article_group       | character varying(40) |           |          | ''::character varying
 thumbnail           | character varying(50) |           |          | ''::character varying
 category            | integer               |           |          | 0
 order_balance       | double precision      |           |          | 0
 order_status        | boolean               |           |          | true
 mutation_date       | character varying(10) |           |          | ''::character varying
 annual_consumption_1 | double precision      |           |          | 0
 annual_consumption_2 | double precision      |           |          | 0
 VAT                 | character varying(4)  |           |          | 'high'::character varying
 short_descr         | character varying(15) |           |          | ''::character varying
 selling_price       | double precision      |           |          | 0
 selling_contents    | double precision      |           |          | 0
 additional          | integer               |           |          | 0
 supplierID          | integer               |           |          | 0
 ordering_manual     | integer               |           |          | 0
Indexes:
    "barcode_pkey" PRIMARY KEY, btree (barcode)
    "barcode_idx" btree (barcode)
Referenced by:
    TABLE "loss" CONSTRAINT "barcode_fkey" FOREIGN KEY (barcode) REFERENCES articles(barcode)
```

```
catering=# \d buttons
                                  Table "public.buttons"
   Column   |         Type          | Collation | Nullable |           Default
------------+-----------------------+-----------+----------+-----------------------------
 buttonID   | integer               |           | not null |
 buttontext | character varying(60) |           |          | ''::character varying
 barcode    | character varying(13) |           | not null | ''::character varying
 reference  | character varying(5)  |           |          | ''::character varying
 accent     | integer               |           |          | 0
 bg_color   | character varying(7)  |           |          | '#FFFFF0'::character varying
Indexes:
    "buttonID_pkey" PRIMARY KEY, btree ("buttonID")
```

```
catering=# \d clients
                        Table "public.clients"
  Column  |         Type          | Collation | Nullable |       Default
----------+-----------------------+-----------+----------+----------------------
 clientID | integer               |           | not null |
 employee | character varying(20) |           |          | ''::character varying
 barcode  | character varying(8)  |           |          | ''::character varying
Indexes:
    "clients_pkey" PRIMARY KEY, btree ("clientID")
Referenced by:
    TABLE "order_lines" CONSTRAINT "clientID_fkey" FOREIGN KEY ("clientID") REFERENCES clients("clientID")
```

```
catering=# \d employees
                             Table "public.employees"
  Column   |         Type          | Collation | Nullable |        Default
-----------+-----------------------+-----------+----------+-----------------------
 barcodeID | character varying(8)  |           | not null |
 firstname | character varying(20) |           |          | ''::character varying
 lastname  | character varying(30) |           |          | ''::character varying
 access    | integer               |           |          | 1
 callname  | character varying(20) |           |          | ''::character varying
Indexes:
    "barcodeID_pkey" PRIMARY KEY, btree ("barcodeID")
```

```
catering=# \d groupbuttons
                                Table "public.groupbuttons"
     Column      |         Type          | Collation | Nullable |           Default
-----------------+-----------------------+-----------+----------+-----------------------------
 groupID         | integer               |           | not null | 0
 reference       | character varying(2)  |           |          | ''::character varying
 buttongrouptext | character varying(60) |           |          | ''::character varying
 bg_color        | character varying(7)  |           |          | '#FFFFF0'::character varying
Indexes:
    "groupbuttons_pkey" PRIMARY KEY, btree ("groupID")
```

```
catering=# \d invoices
                            Table "public.invoices"
   Column    |         Type          | Collation | Nullable |        Default
-------------+-----------------------+-----------+----------+-----------------------
 invoiceID   | integer               |           | not null |
 barcode     | character varying(13) |           |          | ''::character varying
 description | character varying(50) |           |          | ''::character varying
 delivery    | double precision      |           |          | 0
 item_price  | double precision      |           |          | 0
 supplierID  | integer               |           |          | 0
 orderlineID | integer               |           |          | 0
 paydate     | character varying(10) |           |          | ''::character varying
 bookdate    | character varying(10) |           |          | ''::character varying
 item_unit   | character varying(16) |           |          | ''::character varying
Indexes:
    "invoices_pkey" PRIMARY KEY, btree ("invoiceID")
```

```
catering=# \d loss
                          Table "public.loss"
  Column  |         Type          | Collation | Nullable |        Default
----------+-----------------------+-----------+----------+-----------------------
 lossID   | integer               |           | not null |
 number   | double precision      |           |          | 0
 category | character varying(22) |           |          | ''::character varying
 bookdate | character varying(10) |           |          |
 barcode  | character varying(13) |           |          |
Indexes:
    "lossID_pkey" PRIMARY KEY, btree ("lossID")
    "fki_barcode_fkey" btree (barcode)
Foreign-key constraints:
    "barcode_fkey" FOREIGN KEY (barcode) REFERENCES articles(barcode)
```

```
catering=# \d order_lines
                          Table "public.order_lines"
    Column     |         Type          | Collation | Nullable |        Default
---------------+-----------------------+-----------+----------+-----------------------
 ID            | integer               |           | not null |
 barcode       | character varying(13) |           |          | ''::character varying
 description   | character varying(40) |           |          | ''::character varying
 short_descr   | character varying(15) |           |          | ''::character varying
 number        | double precision      |           |          | 0
 item_price    | double precision      |           |          | 0
 sub_total     | double precision      |           |          | 0
 sub_vat       | double precision      |           |          | 0
 mutation_date | character varying(10) |           |          | ''::character varying
 callname      | character varying(20) |           |          | ''::character varying
 clientID      | integer               |           |          | 0
Indexes:
    "tables_accounts_pkey" PRIMARY KEY, btree ("ID")
    "clientID_fkey" btree ("clientID")
```

```
catering=# \d params
                          Table "public.params"
 Column  |         Type          | Collation | Nullable |        Default
---------+-----------------------+-----------+----------+-----------------------
 paramID | integer               |           | not null |
 item    | character varying(20) |           |          | ''::character varying
 value   | double precision      |           |          | 0
Indexes:
    "paramID_pkey" PRIMARY KEY, btree ("paramID")
```

```
catering=# \d payments
                          Table "public.payments"
    Column     |         Type          | Collation | Nullable |        Default
---------------+-----------------------+-----------+----------+-----------------------
 payID         | integer               |           | not null |
 kind          | character varying(25) |           |          | ''::character varying
 amount        | double precision      |           |          | 0
 bookdate      | character varying(10) |           |          | ''::character varying
 paydate       | character varying(10) |           |          | ''::character varying
 instance      | character varying(25) |           |          | ''::character varying
 accountnumber | character varying(25) |           |          | ''::character varying
 ovorderID     | integer               |           |          | 0
 basis         | double precision      |           |          | 0
Indexes:
    "payID_pkey" PRIMARY KEY, btree ("payID")
```

```
catering=# \d purchase_orderlines
                       Table "public.purchase_orderlines"
     Column      |         Type          | Collation | Nullable |        Default
-----------------+-----------------------+-----------+----------+-----------------------
 orderlineID     | integer               |           | not null |
 barcode         | character varying(13) |           |          | ''::character varying
 description     | character varying(50) |           |          | ''::character varying
 item_price      | double precision      |           |          | 0
 item_unit       | character varying(16) |           |          | ''::character varying
 item_stock      | double precision      |           |          | 0
 minimum_stock   | double precision      |           |          | 0
 order_size      | double precision      |           |          | 0
 ordering_manual | integer               |           |          | 0
 supplierID      | integer               |           |          | 0
 bookdate        | character varying(10) |           |          | ''::character varying
 ordered         | double precision      |           |          | 0
 order_date      | character varying(10) |           |          | ''::character varying
 delivery        | double precision      |           |          | 0
 delivery_date   | character varying(10) |           |          | ''::character varying
Indexes:
    "purchase_orderlines_pkey" PRIMARY KEY, btree ("orderlineID")
```

```
catering=# \d sales
                              Table "public.sales"
    Column     |         Type          | Collation | Nullable |        Default
---------------+-----------------------+-----------+----------+-----------------------
 salesID       | integer               |           | not null |
 receiptnumber | integer               |           |          | 0
 barcode       | character varying(13) |           |          | ''::character varying
 description   | character varying(40) |           |          | ''::character varying
 number        | double precision      |           |          | 0
 item_price    | double precision      |           |          | 0
 sub_total     | double precision      |           |          | 0
 sub_vat       | double precision      |           |          | 0
 callname      | character varying(20) |           |          | ''::character varying
 mutation_date | character varying(10) |           |          | ''::character varying
 short_descr   | character varying(15) |           |          | ''::character varying
 clientID      | integer               |           |          | 0
Indexes:
    "ID_pkey" PRIMARY KEY, btree ("salesID")
```

```
catering=# \d suppliers
                            Table "public.suppliers"
    Column    |          Type           | Collation | Nullable |        Default
--------------+-------------------------+-----------+----------+-----------------------
 supplierID   | integer                 |           | not null | 0
 company_name | character varying(40)   |           |          | ''::character varying
 street       | character varying(40)   |           |          | ''::character varying
 housenumber  | character varying(14)   |           |          | ''::character varying
 residence    | character varying(40)   |           |          | ''::character varying
 telephone    | character varying(13)   |           |          | ''::character varying
 email        | character varying(200)  |           |          | ''::character varying
 addition     | character varying(1000) |           |          | ''::character varying
 zipcode      | character varying(7)    |           |          | ''::character varying
Indexes:
    "suppliers_pkey" PRIMARY KEY, btree ("supplierID")
```

```
catering=# \d tables_layout
                         Table "public.tables_layout"
   Column   |         Type          | Collation | Nullable |        Default
------------+-----------------------+-----------+----------+-----------------------
 ID         | integer               |           | not null |
 occupied   | integer               |           |          | 0
 table_seat | character varying(4)  |           |          | ''::character varying
 clientID   | integer               |           |          | 0
 callname   | character varying(20) |           |          | ''::character varying
Indexes:
    "tables_layout_pkey" PRIMARY KEY, btree ("ID")
    "fki_clientID_fkey" btree ("clientID")
```

Point of Sale Catering

Custom operations

The system detects if a logon barcode or a product barcode is scanned.
When no logon is established processing is blocked.

The red sign in the notification bar above the display is showed.
By valid logon the notification bar shows a green sign.
The logon is invisible with scanning.

With the logon from barcode accesslevel 2 the “Administration” button is activated. With this button and submenu accounts it is possible to generate other barcodes for logon purposes.
The barcodefield will be generated as 5 random digits by the program. (The first 2 digits starts with 24 the 8th digit is a check number). The program will check and correct for duplicates. Access is default set on level 1, change if desired. If accesslevel is set to 0 processing is blocked for the employee.
The barcodelabel is saved in folder . /Barcodes/Employees/ after inserting a new employee, a barcode can be printed for logon.
The first name, last name and callname of the employee must be inserted.
The callname field will be printed on the saleslip, it’s also saved in the sales table.

When the login employee logs the barcode a second time, the employee is logged out.
When another employee logs his barcode, the logon is switched towards this employee.

The normal operation starts with logon by barcode.
When customers arrive, the employee push the button “Open Table/Change Tables/Seats”
The table management screen is displayed:

Each button on the screen represents a seat. The green buttons represents tables paired with two seats. The brown buttons represents tables with 4 seats. In total 100 seats are available.
By clicking the buttons the seats are checked as occupied. For groups every combination of tables and seats is possible. For conformation chose “Open new table” and push button “Apply Seats”.

With applying a popup is showed, asking for printing a client barcode. This serves the purpose to switch fast between clients with the printed barcode.
During the stay, it's possible to add or to free up tables or seats by leaving or arriving members of the group. When no costs are made it it's possible to remove all seats.
This is established with "Change table client <number> , with the number of the client who booked the arrangement. Only customers linked by the concerned employee are showed in the choice fields. When costs are made the last seat cannot be removed in this screen. It will be removed if the payment is done in the mainscreen.
On the buttons for the seats the table and seatnumber, clientnumber and serving employee is showed.
The buttons with there belongings and states are visible for every employee, but only operable for the employee who established the linking. With the "Switch Employee" button it is possible to transfer the service to another employee by end of working time or interim absence.
A notification bar is visible below for displaying messages.

If al buttons for the seats are pushed, push the refresh button for refreshing of the screen, and push "Close" button to leave the tablemanagement screen. Next push the "Select Client" button to select the customers to serve, or for fast selecting or switching between client use the barcode for the concerning client. Here only the linked clients for the concerning employee can be chosen.

After this steps has been accomplished, it it possible to choose products with the buttons, or scan products. Default a number of 1 is chosen. If more of the same products is required, use the little spinbox to change the number (1 towards 99) before scanning of pushing a button. After scanning of each product or pushing a product button the number of the spinbox is reset to 1.
For return bookings a little button before the number is provided. Push this checkable button before operating and the numbers will be operable from -1 towards -99. After each operation the spinbox will been reset to it's oriniginal state, to avoid wrong bookings.

The product buttons are organized as follows:
The 10 maingroups with the double arrows are accessable by pushing the arrowbuttons up or down. Here a picture of the maingroup is presented between the arrowbuttons. With the button above the logo 5 subgroups of each maingroup can be chosen. Next a productbutton can be pushed, possibly preceded with the right number if more then 1 product required. The consumptions and their prices are showed in the little display. Also the total amount of the consumptions are showed. For a clearer total overview push the button "Big Display"
After serving the client, the next client can be chosen, with the barcode, or by the button.
Fast switching between employees is possible by scanning the employee barcode and next the concerning client code scan.

If a client will pay the bill, then chose the concerning client, prints the receipt if desired, with the "Printing" button, and by cash paying use the modest calculator on the screen to fill in the cash payed by the customer in the CASH field and push the "REFUND" button. The change will be calculated and showed in the CHANGE field, taking into account the rounding, which is set in advance. The customer also can pay by a pin transaction.
After payment is done press the "TRANSFER PAYED" button to make the necessary bookings and free the tables / seats for this customer. If no costs are made, it's also possible to make a "null" booking to free tables and seats here.

The operation for the backend of the program for administration, button texts, importing, employees, articles, purchases deliveries, booking loss, viewing gross and so on will follow.