

## Documentation Pandora ERP system.

### 2. Accounts and access control.

#### Description operation accounts table.

##### Accounts:

accountID	integer		not null	
aanhef	character varying(8)			''::character varying
voornaam	character varying(30)			''::character varying
tussenvoegsel	character varying(10)			''::character varying
achternaam	character varying(50)			''::character varying
postcode	character varying(6)			''::character varying
huisnummer	character varying(5)			
telnr	character varying(10)			
toevoeging	character varying(8)			''::character varying
email	character varying(255)			
password	character varying(255)			
account_created	character varying(10)			
account_count	integer			
geboortedatum	character varying(10)			
p1	character varying(8)			10111100
p2	character varying(8)			'00000000'::character varying
p3	character varying(8)			'00000000'::character varying
p4	character varying(8)			'00000000'::character varying
p5	character varying(8)			'00000000'::character varying
p6	character varying(8)			'00000000'::character varying
p7	character varying(8)			'00000000'::character varying
p8	character varying(8)			'00000000'::character varying
p9	character varying(8)			'00000000'::character varying
p10	character varying(8)			'00000000'::character varying
p11	character varying(8)			'00000000'::character varying
p12	character varying(8)			'00000000'::character varying
p13	character varying(8)			'00000000'::character varying
p14	character varying(8)			'00000000'::character varying
p15	character varying(8)			'00000000'::character varying
p16	character varying(8)			'00000000'::character varying

##### Indexes:

"accounts\_pkey" PRIMARY KEY, btree ("accountID")

##### Referenced by:

TABLE "loonbetalingen" CONSTRAINT "account.accountID\_fkey" FOREIGN KEY ("accountID") REFERENCES accounts("accountID")

TABLE "lev\_accounts" CONSTRAINT "accounts\_accountID" FOREIGN KEY ("accountID") REFERENCES accounts("accountID")

TABLE "klanten" CONSTRAINT "accounts\_accountID\_fkey" FOREIGN KEY ("accountID") REFERENCES accounts("accountID")

TABLE "werknemers" CONSTRAINT "accounts\_accountID\_fkey" FOREIGN KEY ("accountID") REFERENCES accounts("accountID")

TABLE "koper\_accounts" CONSTRAINT "accounts\_accountID\_fkey" FOREIGN KEY ("accountID") REFERENCES accounts("accountID")

#### Above a screenshot of the table with its connections.

We will explain the fields accountID, email, password, postcode, huisnummer, account\_created, account\_count, geboortedatum, and the fields p1 – p16. The rest will be known.

accountID: The primary key off the table and also one possibility to logon. It's also possible to logon with the email adress. The accountID is an 11 check weight number, which begins with a 1 and is 9 positions.

Email: second possibility to logon.

Password: The password is sha256 encrypted with a random public key (salt) and private key password of the user. The password must be at least 8 positions. It would be a small effort to extend this with for instance 2 numbers or special signs and so on.

The postcode and huisnummer is used by the module postcode and the tables postcodes, straat en plaats.

With the postcode 4 numbers and 2 capital letters and the house number the street and residence are looked up. It's the Dutch postcode table.

Account\_created: the date the account is created. The format is yyyy-mm-dd

Account\_count: number of times the account logon the system.

Geboortedatum: date of birth. Format yyyy-mm-dd

The fields p1 – p16 serve to give entrance to certain menus or submenus.

The data consists of 8 positions of zeros or ones.

The thirst position stand for access to mainmenu. 0 = no access, 1 = access.

The mainmenu is disabled for the user if it's 0.

The menuitems are:

p1 up to and including p16:

The indexes 0 for the menus are:

p1[0]-accounts, p2[0]-leveranciers (suppliers), p3[0]-werknemers (employees), p4[0]-inkoop (purchase), p5[0]-verkoop (sales), p6[0]-magazijn (warehouse), p7[0]-werken intern (works internally), p8[0]-werken extern (works externally), p9[0]-calculatie interne werken (calculation works internally), p10[0]-calculatie externe werken (calculation works externally), p11[0]-loonadministratie (payrol administration), p12[0]-boekhouding (accountancy), p13[0]-voorraadmanagement (inventory management), p14[0]-management informatie (management information), p15[0]-onderhoud (maintenance), p16[0]- herprinten van formulieren (reprint forms).

The indexes of the data positions 1 towards 7 stands for:

This positions are only accessable then the thirst position has been activated (menuitem).

p(x)x[1] = special access (sensitive information or strictly personal)

p(x)x[2] = ordering (purchase or sales)

p(x)x[3] = input new item

p(x)x[4] = change item

p(x)x[5] = print items

p(x)x[6] = request / query

p(x)x[7] = future reservation

where (x)x stands for 1 - 16

With the last menuitem reprint forms, only the menu is enabled / disabled

The possibility to print forms are linked via the other main menus.

If the mainmenu is accessible for the user but the submenu item is not, the user gets a notification that the submenuitem is not accessable.

The permissions to menus and submenus can be set, by an authorized person in the menu onderhoud (maintenance) – bevoegdheden muteren (adjusting access).

Default permissions are set when creating an account.

These permissions are:

Input account, change account, ordering online products, request your (own) order overviews,

printing (own) invoices.

The accounts can be linked to werknemers (employees), sales (the employees of the sale company) or

Purchase (the employees of the purchasing company). This accounts can only access there own company data.

Default the account is linked to klanten. Specific for information about payments.

When calling the program modules from het mainmenu one or more parameters are included. The main parameter is the emailadres of the user who is logged on. The purpose of this parameter is to remain accesscontrol by returning to the mainmenu with this parameter, so the authorisations can be set, without logging in again. Thurdere more several parameters are set by calling certain modules for next purposes:

1. Starting same modules with a routing parameter for different work departments, so the modules acts different.

Example menu sales view online orders (Webverkooporders opvragen in Dutch) The buttons print packing slip and print invoice are disabled with this entrance. By menu warehouse (Magazijn) is button print backing slip enabled and by menu accounting (Boekhouding Dutch) is button print invoices enabled.

2. Starting a module with parameters and returning for executing the module with functions which changed values are held by the system. A good example here is data transaction hours (Uurverbruik muteren Dutch) by menus Internal works (Werken intern in Dutch) and external works (Werken extern in Dutch)

Here the last changed worknumber and accountnumber is held by the system. Also the state of the button Transaction (Mutenen in Dutch) is colored red if a transaction fail and colored green if a transaction is succesfull.

3. Starting a module with a parameter for writing and reading in different database tables by different menu entries.

Example here is item call (Artikelafroep Dutch) by menus Internal works (Werken intern in Dutch) and external works (Werken extern in Dutch).