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**XTREME PHARMACY MANAGER SYSTEM DOCUMENTATION**

# Created as a thesis and proof of concept for business management information systems in pharmacies and drugstores.

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# OBJECTIVE OF THE PROJECT:

The purpose of this whole program, which I personally consider a monster, an angel of death, is to improve and automate the pharmacy business, and in today's time, when technology is an invariable part of our lives, it can be used wisely and responsibly, but and take some of the weight off the calculations for business decisions like calculating how much of a product is left in the warehouse, how much each worker has received, how much each customer has given, and so on. It may not be calculated all at once and the responsibility may again fall on the shoulders of those who work, but still some of this responsibility may be taken by the program itself which is used and the necessary details given of all that is happened with an order, for example what is its status, the name of the worker who completed it (he/she will still receive the profit), the name, number, email and address of the customer who ordered the relevant drugs and in the data that are saved, there must be a username and password to log into the database and see what is needed depending on the rights, so as to limit the access of users depending on whether they are operators or customers, and so preserve the integrity of the database, and of the information system itself as a whole, as well as the operators themselves not to make mistakes in the calculations. This can be achieved either by complex stored procedures in a small package that run from the database and do the calculations for the operator, with the operator providing the data in the form of a unique identification number of the product or the user, and accordingly the brand, the way of payment, delivery service and so on the database and when adding an order and delivery, these calculations are made before the data itself is entered into the corresponding table, which facilitates the work of the operators, but does not relieve them of responsibility, mainly because they can put own price when ordering if they want to add a markup and put the main price of the product depending on the price that the supplier of the product has set on their site because it is not kept in the database because the suppliers give different sides to all the products as well as brands and suppliers are not only from one country, they may be from and in many countries, but the main price of the products in their table is determined by them, and if they want to change the role of users, this will automatically reset the orders related to them, and they will have to set them again, and each user in the information system that I have created, namely XtremePharmacyManager, can be either an Administrator (not a system administrator, but a database administrator, there is a difference and you will see in the following sentences), either Worker or Customer and this role determines his/her access and how he/she will be selected in the worker and customer catalog and you guessed it, admins and workers are the operators of this information system,and the customers are outsiders and they will not have access to use this system unless a website is built to it to give them access to view everything in the pharmacy and place orders and change their profile details including and your diagnosis, and the diagnosis is recorded in the database to know which medicine to prescribe for which client, for example BCG vaccine should be given for tuberculosis, ACC should be taken for cough, Nurofen or Analgin should be taken for high fever and and in this way it will be possible to give guidance on what can and cannot be given to a given customer from the list of users in the database. As for them, only system administrators, because there is a difference between database administrators who can only change the database and the tables in it, but not the server and the whole system as a whole, for each added user must be created users in the list of the database, not in the tables, but in the list of users of the database itself by taking the username and password from the tables and creating login data to the server for the users themselves and, accordingly, the users to be added to the corresponding role in the database, otherwise those users won't be able to access anything and won't be doing their jobs no matter what they're supposed to be doing. This information system could also give detailed statistics on many things in its reports, but they had to be subsequently removed because they interfered with the proper operation of both the software and the database, and lag or not, it would completely prevent the normal role of the operators. Regarding the products, great attention is paid there, as their brands and suppliers can be added (in the tables of this information system, they are only names so that only the most important can be there, and not have superfluous things to bother), as well as adding a name, description, lot number, registration number and location in the warehouse you use in real life to know the arrangement of all products and who is in what place. This will keep everything organized and be in place for all database operators who work whether they will be in a small or a large company. Such an infrastructure I had seen and taken when I had worked with programs like NeoLogic and inspired me to make my information system and another program before that, which unfortunately I left to my own devices, because in essence I had screwed it up several times, I had made it too complicated interface and the logic I had put into the database, I hadn't tested it and it definitely didn't work unlike the logic I had put into this software I'm writing about right now. Regarding orders and deliveries, they are related and even if they are relatively small in the tables themselves, WHAT IS PUT IN THERE IS IMPORTANT because they contain the data about who ordered the product,in what quantity and at what price and who fulfilled the order, date of creation, date of change, reason for change and for ITS STATUS.**IMPORTANT!!! WHEN THE STATUS OF AN ORDER IS CHANGED, BOTH THE OPERATOR'S SALARY AND THE AMOUNT REMAINING AFTER FULFILLMENT OF THE ORDER ARE CALCULATED AUTOMATICALLY, DEPENDING ON WHETHER IT IS PREPAID/PAID ON DELIVERY/PAID IN PLACE/COMPLETE OR OFF THE AZAN/RETURN AND THE ORDER WILL NOT BE ABLE TO DONE, THIS IS PREVENTED BY THE SYSTEM ITSELF IF THE CUSTOMER USER DOES NOT HAVE SUFFICIENT MONEY IN THEIR DATABASE ACCOUNT ie. HIS ACCOUNT IS LOWER THAN THE PRICE OF THE ORDER WHEN THE PRODUCT IS NOT IN SUFFICIENT QUANTITY, FOR EXAMPLE LESS THAN DESIRED IN THE ORDER OR WHEN THE OPERATOR, WHETHER IT IS A DATABASE ADMINISTRATOR OR A NORMAL WORKER NICK, IT IS NOT SET BUT BY YOU, WHO ARE THE OPERATORS OF THIS SYSTEM, ARE REQUIRED TO APPOINT YOURSELF AS THE ORDER OPERATORS FOR YOUR FINAL SALARY TO BE CALCULATED!**

Setting the status and reason for changing the order at any stage is important to know who last placed the order, who changed it, who fulfilled it and the reason why it was changed. The database of the information system itself puts automatic messages in English on some order statuses in order to inform the operators what operation was carried out, at what time and why it was carried out if, of course, it was carried out successfully. Another important thing in this information system that is calculated automatically is deliveries. Their table is smaller than that of orders, but it contains the numbers of the orders to which they are assigned, the numbers of the delivery services, the numbers for the payment methods, as well as the orders, date of creation, date of change, reason and of course CONDITION!

**IMPORTANT!!!!! WHEN THE DELIVERY STATUS CHANGES IN THIS INFORMATION SYSTEM, THE ORDER TO WHICH IT IS PLACED IS ALSO CHANGED AND ACCORDINGLY THE COSTS OF THE USER CLIENT ARE AUTOMATICALLY CALCULATED AFTER THIS IS AUTOMATICALLY SET AS THE REASON FOR P ORDERS AND ORDER STATUS CHANGE AS WITH BOTH IT REQUIRES WAITING FOR OPERATOR INTERVENTION IN SOME CASES AND IN OTHERS EVERYTHING IS CALCULATED AUTOMATICALLY BEFORE YOUR EYES! CONDITIONS IN WHICH THERE MAY BE AN ERROR IN DELIVERIES ARE: NO ORDER NUMBER ASSIGNED TO DELIVERY, NO DELIVERY SERVICE NUMBER ASSIGNED TO DELIVERY AND NO PAYMENT METHOD NUMBER ASSIGNED TO DELIVERY!!! IF THESE THINGS ARE MISSING, THE DELIVERY IS INVALID AND WILL NOT BE PERFORMED!!!**

This system can more or less take your breath away as it takes some of the load such as calculating the business logic behind orders, deliveries and automatically changes everything when a product or delivery is changed such as price or if a user's role is changed! This system is made to flawlessly calculate the data in it related to businesses such as stores and especially drug and pharmacy stores and for as much security as possible in their calculations as for each order there is one user who is a worker and one who is to be a customer, as well as each product has exactly one brand and one supplier set, and each delivery has one order, one payment method and one delivery service set, that is, the relationships are one-to-one in the tables of this information system as only one case is one-to-many/many-to-many and that's for product images while user profile images are one-to-one in the user data table, per user one profile image and that's it. For this information system, there is no need for web servers such as APACHE/TOMCAT/XAMPP/IIS or the like because the images of users and products are saved and uploaded in binary format to the database, and even if you use a website with ASP.NET and/or PHP you'll need to grab the binary data of the images from the database and upload them, accordingly, in binary format instead of putting them in the web server's file hierarchy unless, of course, you make your website script save those images to the website every time they are downloaded unless they are previously saved, which is complicated in my opinion, and the database of the information system I use allows uploading binary data and even has an "image" type, which I don't use to there may be compatibility with older versions of the same database. Thus, for the images, how they are placed, for each user there is an opportunity to change or for him to change his "profile" picture through the administrative program, and for each uploaded image of a product, the name of the image or the file of the image is put , it can be a description, whatever you want you can do it, the number of the product that the image is to as it is in the database and of course the image itself in binary format so the relationship between each product and the images to it is one to many and many to one or common many to many. This will be discussed more in the database tables section, and here the purpose and working principles of this whole project were briefly explained. Unfortunately, a huge threat to this information system is that there is no encryption either on the columns or on the entire database, and unfortunately if I had more time I would do it as well as make more huge changes to the software part,and I had just made this information system to be able to be improved and expanded by me and other developers who know what they are doing and want to improve it more than what I have sacrificed to make it the way it is now.

# **TECHNOLOGIES USED:**

## **Microsoft SQL Server**

This information system uses Microsoft SQL Server 2022 for the database and is the DBMS that I have learned the best for learning SQL in general and I am glad I used it because it uploads data quickly even though it reloads. This database management system allows the creation of huge databases and tables in them, as well as using XML data, data in binary format and other complex data types such as date and time for example, and can be used to create databases for small video games, as well as MySQL, IBM DB2 and Oracle DB to be used to create huge business data for huge companies, which helps to create information systems bigger than mine, and triggers and stored procedures can be so as complex as you can make them like I made the stored procedures and triggers in my Microsoft SQL Server based database as complex as exactly I wanted to put huge logic into them and make this information system the monster that I wanted. Microsoft SQL Server has a strict hierarchy in both its tables and its server roles and database roles, let me give an example: sysadmin is the server role for system administrators, and through this role anyone logging into the server can change absolutely anything that they also want to change absolutely everything they can in the database and in the server, but in the latest versions there are also roles like ###MS\_LOGINMANAGER### that allow to change for example users in the database and login details in the server without necessarily using the roles sysadmin for system administrators and securityadmin for security administrators. Securityadmin is a role that gives access to change user data and login data and ensure the security of the server as a whole, but it does not have as many rights as the sysadmin role, which, as I said, gives full and inviolable access to everything in the server itself and the database management system itself. In addition, Microsoft SQL Server also provides many ways to login and authenticate to the database, such as Windows/Linux Authenication which is user authentication of the operating system it is installed on, SQL Server Authenication which allows creating a normal user on the database and the server as a whole without the need to log in with a user account from the operating system and accordingly view and make changes on the server depending on the rights that they have been given or that they have given themselves when they created login data and a user to them if they themselves are system administrators. I had learned this by trial and error and LET ME TELL YOU, YOU CANNOT GIVE YOURSELF RIGHTS IF YOU ARE LOGGED IN AND EDIT RIGHTS TO YOUR OWN LOGIN DETAILS AND THAT AS FAR AS I KNOW IS SOLID SECURITY WHEN USING THIS DATABASE MANAGEMENT SYSTEM AND I THINK SHE IS PUT ON SPOT!! I KNOWBECAUSE I EXPERIMENTED THIS TOO WHEN TESTING MY MONSTER OF SOFTWARE AND DATABASE ON DIFFERENT LOGIN AND DATA CHANGE CASES WITH DIFFERENT LOGIN DETAILS AND USERS!!! There is another way, and that is by logging in with data from Azure Data Studio, which is part of Microsoft's Microsoft Azure platform, which I haven't personally used, but I know is used to host large-scale applications and information systems and as it has both a free trial and free plans, as well as paid plans for students and developers from large companies who want to grow their business and create their own information systems for it. With a Microsoft Azure login, you can log in to your server or connect to the information system you've hosted on this platform when it's active and manage it remotely instead of using your computer as both a server and a client, and you are overloading it like I did with my laptop, from which I am currently writing this documentation as well. There are many other virtual server hostings like Amazon AWS, Google Cloud and Heroku and they are also good, but they are not in the scope of the documentation I am currently doing and they are not in the scope of the information system. Microsoft SQL Server also makes it possible to create roles in the database and assign users to these roles, which together with the standard roles, such as dbo, which is for full access to the relevant database and to the schema on which all tables are placed by default in the database, providing a strict and stable hierarchy in the database for the users logged in to manipulate it, and that's exactly what I did in the information system that I spent two months and two weeks in total developing and writing about. This allows anyone who knows how to work with databases in general to create a well-secured data infrastructure in their database along with the constraints they have placed on table logics, stored procedures, and databases. With both queries and system stored procedures, the credentials and roles, whether of database roles and users, or server credentials and server roles. This allows many ways to control the data, change the hierarchy and many other things and not need to use queries in the database, server or table triggers themselves, providing easier work and less error than typing of queries by hand in queries and their execution through stored procedures and functions. Another good thing that is in this database management system is the two types of encryption and the use of many encryption technologies such as SHA128, SHA256, MD5 and many more types as well as two ways of encryption, which are:which is part of Microsoft's Microsoft Azure platform which I haven't used personally but I know it's used to host applications and information systems on a massive scale and both have free trials and free plans as well as paid plans for students and developers from large companies who want to develop their business and create their own information systems for it. With a Microsoft Azure login, you can log in to your server or connect to the information system you've hosted on this platform when it's active and manage it remotely instead of using your computer as both a server and a client, and you are overloading it like I did with my laptop, from which I am currently writing this documentation as well. 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**Always Encrypted: A key or certificate is used to encrypt and protect the data for a certain column of the tables, and there MUST be a certificate and key on both the server and the clients of this information system, otherwise the database data will be presented in a format, which cannot be read and this can create huge errors in both the software and the databases and its stored procedures and triggers that manipulate the tables and automate the operation of the information system. By careful planning and design this can be done, but the certificates and encryption keys must be changed periodically and shipped with the information system software each time they can be installed on the machines that will connect to the information system.**

**Transparent Data Encryption: This technology encrypts the entire database with a certificate or key and requires the connection itself to be encrypted in order to connect and as with the method above, the certificate and key must be on all machines connecting to the database data and certificates to be renewed at a certain period, otherwise it cannot work. Unlike encrypting individual columns, this way allows the entire database to be encrypted with one or more keys and certificates, thus providing really solid protection for the entire database, making it a huge hassle for those who would try to break in whether or not will test for penetration, I mean the so-called "white hackers" and "red hackers" or those who have evil goals or want to benefit by stealing data or demanding a ransom to "fix" the system they crashed, such as "grey hackers", "black hackers" and cyber terrorists in general, and as we know they are very dangerous and the provision of protection, especially of sensitive data in business administrative information systems like mine or in much more complex and corporate information systems such as NeoLogic.**

1. **The downsides I've seen in Microsoft SQL Server, however, are the following: Queries that are nested within each other can cause an error and instability if there are more than 32, and when we're not careful and it loops it can stop the entire previous query regardless from where or the server itself to refuse.**
2. **Server login data can only be changed with requests and procedures, not through the GUI**

In any case, these drawbacks can be fixed with proper use and are made more for system stability than to hinder performance and may be advantages, who knows.

The language of Microsoft SQL Server is called TRANSACT-SQL and in it all queries are created as transactions to and from the database and if a transaction is not completed the server blocks and waits for its execution and this can block the work if it is not completed so if write SQL queries in this database management system so you know what to watch out for :) .

## ADO.Net Entity Model

**The ADO.Net Entity Model is a technology that allows you to create an object-oriented version and hierarchical model of the databases you make, and makes life easier for programmers who use databases for their programs in general. It allows to easily create a Model-View-Component (MVC) type system which is commonly used in ASP.Net and JQuery built sites (I could be wrong about JQuery as I'm not really familiar with this technology but I know that again is used to present large amounts of data in tables in websites in an easy way), and where the components responsible for taking and presenting data are tightly coupled and included with the tables and forms that present them and this is used when you want to generate database connection data dynamically, which is the case in my case, instead of using one database connection always and using the same component with a persistent database connection, or generating a component as much as you use it and then remove from the memory of the computer and the program, of course disconnecting beforehand so as not to create errors and become a DDoS attack on your own server due to improper use of SQL queries and ADO.Net Entity Model and LINQ queries in general, and it happened to me too, i won't lie, overloading the computer or uploading too much data in binary format does this. In addition to Model-View-Component(MVC), Model-View-View-Model(MVVM) can be created through this system, where the windows in which the data is displayed use the provided object-oriented model of the database as a data source instead of include a context type component as part of their components, and the context runs in the background and accepts commands when necessary by placing a data source to ensure communication without necessarily having a database context such as a window component or a program component, and this is more practical because it provides more independence of the individual components in the software infrastructure of the information system and thus ensures a faster operation of the program and more possibility of expansion because the code of the different components will be edited independently of the others and if change something, it will not be necessary to rewrite all the program code, I emphasize on program code, because there is also design code, on the windows for everything to work normally, and anyway everything will be automatically synchronized when the data in the database changes. Another type of infrastructure that ADO.Net Entity Model allows is Model-View-Presenter(MVP) and no, if you are a gamer don't confuse it with Most Valuable Player in video games, these two terms may have the same abbreviation but they have completely different meaning and have nothing to do with each other.**

Thus, Model-View-Presenter(MVP) is an infrastructure that uses an intermediate class that connects on the one hand the database context, in this case the ADO.Net Entity Model, and on the other hand the application components themselves, such as windows for example, and in the intermediate class is all the logic for fetching, changing, inserting and wiping the data, and through it you can concentrate everything in one class instead of changing unless necessary the windows and the database context itself and thus inserting your logic without restrictions in exactly one place, and you can put the data sources before that, but everything will be managed by the intermediate class, in which the main logic will be and which, if necessary, will manage everything else in the software. The speed and ease of code generation, however, depends on the logic, how many and which of the methods you use at once or simultaneously in your program, and how much complex code you make to introduce security on both the database side of your information system and software side, and this is of huge importance if you are making business and/or administrative systems for your company if you don't want to buy off-the-shelf or use open source IC, and mine is open source in general. This technology, Entity Model, can really make it easier for you, and unlike me who last year tried to do something like the information system from scratch, I had done it in 2 months and a few weeks in total, it would have taken you months or years until make it work and I'm telling you this because I've experienced it and it's hard even if it's not as hard as cutting metal and soldering and desoldering circuit boards because it always takes a long time for idiots like me to figure out what code to write and for what even to use the Internet and ChatGPT, and I admit it, I did it! Anyway, this technology really helps and can save you time as the database code with relevant tables, stored procedures and such can be generated for you instead of writing it by hand for days and nights and if you don't believe me , check it out for yourself, I won't convince you :D . However, this technology also has the following disadvantages:

1. **When you do different types of operations, especially asynchronous ones, you have to reload the data from the database itself into the model, and this can take a huge amount of time because the cache is reloaded, and depending on how the data is reloaded and presented in the windows, this can be slow the software, and it works for me, I won't lie and explain later**
2. **If you want to reload data or use dynamic database connection addresses you will need to change the database context with the constructors and the OnModelCreating method to support dynamic connection addresses and associate the different types with the corresponding tables, here is an example with some code as i remember it, if you see the code yourself you can see the mistakes i made here:**

**public Entities () : base(name=”Entities”)**

**{//default constructor that uses app.config data}**

**public Entities (EntityConnectionStringBuilder esb) : base(esb.ConnectionString)**

**{//constructor that uses a dynamic address generator for the database and causes the context to use the resulting address from the address generator to connect to the database.}**

**protected override void OnModelCreating(DbModelBuilder builder)**

**{**

**//parent class function you can call it anywhere you want**

**base.OnModelCreating(builder)**

**//here is the database data type association logic as**

**are in the model with the tables as they are in the database**

**this.Entry<User>().ToTable(“Users”);**

**this.Entry<ProductBrand>().ToTable(“ProductBrands”);**

**....**

**//and so for all the tables and views, there is no need for the stored procedures as they are injected as functions and in a completely different way that I didn't quite understand, but it's good that there is also a designer window to make code generation easier.**

**}**

1. **Lazy load caching and dynamic proxies are usually used, which can prevent data serialization or further slow down the process, and I've left it because I'm slow, but hey, I'm slow, so I've left this flaw, I didn't want what I was doing to be perfect, I wanted it to work for what it was meant to do, no matter how. In my case I had disabled dynamic proxies and this can easily be disabled in the constructors or in the OnModelCreating method if I'm not mistaken.**

In general, the ADO.Net Entity Model technology based on C# and object-oriented programming and database representation can be used to quickly and easily create huge database codes and facilitate the creation of database software that is created and ensuring its proper use and how it will be used by operators, what it will provide and what access to what is provided depending on the access control that is provided in the logic. I've run out of words for this and the other technologies used so I'll stop there.

# DATABASE

The database, as I said, is made on Microsoft SQL Server, and in it is half the logic, as well as all the important data tables and views necessary to properly function, protect, read, change, add and delete data while maintaining and data integrity everywhere. The database itself is called XtremePharmacyDB and the code to create it can be run in SQLCMD by server administrators on the server that will host the database. As I said, this database is not yet protected by encryption, but there are other, simpler ways to protect it, and the use of this information system is not recommended for large companies, but for now only for small companies that are still able to develop the business if it is with pharmacy and to improve and create their own version of both the database and the software that is used to connect to it. This database isn't big, but it's not small either, and here's what it consists of:

* 11 tables with important and highly sensitive data
* 44 stored procedures, 4 for each table, for safe manipulation of the data that is used by the software and ensures the correct modification, calculation and interaction between all the data in the table
* 12 views that are used to drill down and create reports on the various data apart from the logs, both confidential reports for your company and reports to give to customers when preparing an order and/or shipping the relevant order.
* 33 table triggers, 3 for each table except the log one, which control data flow, data manipulation and access, and automate the addition, modification, and deletion of data, and add logs for each data operation performed, and if there is changed data on which other data depends, for example order price from product price or user account after an order is placed, these triggers have logic that automates the data calculation and ensures the data is up-to-date and prevents errors in most but not in any case.
* 3 roles that ensure full user access to data and provide protection against unauthorized access and modification of data by users who should not modify data where they are not authorized.
* A server trigger that grants access ONLY WHEN any user with a server login is written to the user data tables for the database, so turn it off when you do preventative maintenance, but otherwise keep it on as it provides the only solid protection for now as long as there is no encryption anywhere in the database.

All data has a unique identification number that is generated by the database itself and cannot be changed from anywhere, and this is the most secure way to ensure the correct connection between the data and its accurate presentation and manipulation, although there are other fields somewhere that are unique and there is a reason if they are like that.

**Whatever automation features this database may have, it requires that each user recorded in the database's user table have a user created in the database itself and with a login to the server, because this way the information system software connects to the database and integrated security is turned off for role-based access to actually work. This is without exception so BE RESPONSIBLE AND CREATE, DELETE AND CHANGE USER DATA AND DATABASE LOGIN AS AND WHEN NECESSARY!!!**

In the following paragraphs, everything related to tables in the database will be described in as much detail as possible so that you know what is where and how to record it and how it is calculated in the database, from tables to stored procedures, triggers, views and roles , so if your patient enough you will read this to the end and know what to do. There are -1 data in the tables and they are important for the relationships between the tables to be good and valid so DO NOT REMOVE THEM UNLESS YOU WANT THE DATABASE TO BE STRUCTURALLY BROKEN!!!! THEY ARE THERE ON PURPOSE AND THAT'S IT THEIR PURPOSE TO GO TO THE PLACES WHERE THERE IS NO VALID DATA SET!!!!

## TABLES:

All the tables are important, so pay close attention to what is written on each of them, because otherwise you can get it wrong and fail everything, and also do a lot of damage to the information system itself!

### **Users:**

All user data is entered into this table, and this data should neither be displayed nor accessed, as access to the database depends on this data, as well as the data known about the users and in what position are in relation to your company, so be aware of what you are doing so you don't complain later. Only administrators can change the data in this table, other users can only change their data if they are registered!

**Columns:**

**ID - the unique identification number for each user, is used both in logs to represent data manipulation operations and in views and in setting the user as an operator or customer in a given order or elsewhere and ensures that the user can be quickly found in the system regardless either by query or stored procedure. Each user may have the same other data, but the ID is unique to each user and cannot be changed no matter what you do and how you try, even the stored procedures themselves won't let you do that, so think about it how you work with this database and what you change.**

**UserName – 50-character string that corresponds to the username you log in and access the database with and is unique to all user data for security purposes. There can be many users, but never multiple users with the same name, and this logic is sufficient to ensure the security and correct creation of login and user data in the database against data in this table and the correct modification of their data afterwards or deleting them after they are removed from this table.**

**UserPassword – 100 character string, which is not encrypted yet, but shows the password to enter the database and is unique for everyone, there cannot be one password for several users, so everyone will be able to have their own password when entering data for login to the server itself and to the databases andNEVER, BUT NEVER TELL ANYONE YOUR PASSWORD, KEEP IT AS YOUR EYES, BECAUSE THE USERNAME AND PASSWORD CAN BE CHANGED COMPLETELY NOT EVEN BY THE DATABASE ADMINISTRATORS, BUT BY THE ADMINISTRATORS OF THE SYSTEM TO WHICH IT IS INSTALLED ZI DATABASE!!**

**UserDisplayName – The display name of the user, usually this is the user's real name which appears in both the title of the main software window and reports as the operator and customer name respectively on orders so be careful what you put on as a display name as it will be visible to all other carriers and on the invoice you receive for the orders you place or process and it won't be a problem for anyone but YOU once you've set this to display. It's your responsibility and luckily, you can change it later as there is an option to change your own user data.**

**UserBirthDate - The date of birth of each user. It can be entered once during registration, but if you make a mistake only a system administrator and/or database administrator can change it and this is for security purposes so that the date of birth cannot be changed indiscriminately and then there is a mistake on the one who had a birth date changed it and everything is gone...let's not say that there is no need, but yes, it is dangerous, just like changing the username and password in general.**

**UserPhone – the user's contact phone number, if it's wrong you can change it without a problem, but be careful as this will be shown in both invoices and reports and if you get it wrong they may not be able to contact you when they should or to check your drug delivery details or to answer your query if you have one about different drugs and such. Fortunately, you can change your phone number if you've made a mistake, but submitting the wrong phone numbers is no joke, as a lot can depend on it.**

**UserEmail – The email address if you have one. This is another way for contacts and feedback if you have an inquiry or if you place an order on-site and/or online in this information system and such data is kept confidential and is mainly used to respond to inquiries and feedback between customers and the company or if you have to send an inquiry to one of your colleagues and he doesn't answer his phone, and everyone has had such colleagues in general. If you get it wrong, you can change it, but it's best not to get it wrong if you want them to contact you without problems!**

UserAddress - your contact address and on-site delivery of medicines if you can't get them directly from the pharmacy that uses this information system, this is very important and best not to get it wrong as whether you are a customer or a system operator , it can make the difference between getting the right medication to the right address and saving lives, and making a fatal mistake that can weigh on your conscience later.

**UserProfilePic – the profile picture that you will use or will put on you if you register. By default it is some binary code which is not even a picture and makes an error, but whoever wants to express his creativity and upload a picture will upload it in binary format in this column of the table as there is one picture per user and only you can to replace photos, not to add more than one.**

**UserBalance - this is the amount in the user's account and if it is not enough the order cannot be fulfilled, so this is the amount that the customer has invested and the salary that the operator will receive and the calculation is automatic to reduce the error and make it easier work, so be aware of how much you spend and how much you get and so on.**

**UserDiagnose - this is the diagnosis you have and is taken from the health insurance note, be careful when writing it down as this guides what drugs are recommended to cure those diagnosed and this CAN REALLY BE THE DIFFERENCE BETWEEN TREATMENT OF SOMEONE AND THE TAKING OF HIS/HER LIFE. THIS IS A GAME WITH THE LIVES OF CUSTOMERS AND PATIENTS BECAUSE YOU THINK OF HIM!!!! Anyone who has worked in a pharmacy before will know this and will work conscientiously and if they make a mistake they will correct it or if you are a patient you will have the opportunity to correct it so don't worry and if you don't have access just tell one of the operators they will fix it for you the recorded diagnosis and done!**

**UserDateOfRegister – this is the registration date of each user and it is added automatically by the database and in the way determined by the database it cannot be changed, that is unless some system administrator goes to make an edit request and messes up the dates of registration of all, then I will refrain from saying what will happen, but only one thing I will say:**IT WILL BE VERY BAD. It's best not to touch it if you don't want to mess up yourself and mess up other people's work, but I'm not the one to say that. If you do want to change it's your responsibility, but you will suffer the consequences in the end.

**UserRole – This is a hard-coded number that corresponds to the user role that each user will have in the information system. The smaller the number, the closer the access and the more rights a given user has. Thus, valid role numbers are:**

1. 0 - XPAdmin - Database Administrator
2. 1 - XPEmployee - Simple database operator
3. 2 – XPClient – ​​Client of the information system and the database

It depends not only on what rights you will have as users, but also how you will be selected during the creation and modification of orders in the database,SO DON'T PLAY WITH THIS!!!!!!!!!!!! IF YOU START ABUSING IT IS YOUR RESPONSIBILITY, BUT YOU ARE PLAYING WITH FIRE!

Also, if you have changed a user's role, it will be automatically reset in all the orders it participated in and you will have to manually set it again in each order.

In general, the user table is one of the most important tables in the entire information system, and if you make a mistake, not only you, but many other people will suffer.

### **Product Brands:**

In this table are the lists of the brand names of the products, before entering a product enter its brand in this table so that you can then select it and put the product next to it when you save it. I had done so in order not to get into unnecessary details, but to focus on the important tables and put them there. Brands didn't need anything but their names here and so I put it here. Only administrators can change this table, so keep this in mind when making changes. There is one brand for each product and different products may be from the same brand and so, there is nothing else to say.

**COLUMNS:**

**ID – the unique number of the brand in the table. For both users and brands, the unique number is generated by the database itself and cannot be changed, but is used to properly link this table to other tables and to easily find and select all brands in the table. It's the best way to discover anything and to easily select instead of writing by hand. NO MATTER HOW MUCH YOU WISH YOU CAN'T CHANGE THIS!**

**BrandName – the name of the brand, 200 characters, to which the product belongs. It's just a name that can be grouped by brand and there's nothing else to write, but it shows what brand the product is and if you want to see it on the internet to check if it's from that brand you can you get your bearings and if you haven't done something like people fix it. DO YOU MESS UP SOMETHING IT'S WRITTEN ON YOUR BACK!!!!**

### ProductVendors:

The supplier table and as always it is for grouping products by supply and it is your responsibility to put the base price of the product as it is on the supplier's site and of course IT IS YOUR RESPONSIBILITY IF YOU MAKE A MIX UP IN YOUR ACCOUNTS BECAUSE EVEN BEFORE I DESCRIBED THE TABLES I SAID WHAT IS CALCULATED AND YOU CALCULATE IT YOURSELF!!! Only administrators can change the data in this table!

**COLUMNS:**

**ID - the unique number with which the supplier is recorded in the database, cannot be changed in any way and is automatically set by the database when something new is entered in the corresponding column AND NO WAY TO CHANGE IT, NO WAY TO CHANGE IT, BUT THIS IS THE KEY TO FINDING ACCURATE INFORMATION ALWAYS IN THE DATABASE!!!**

**VendorName - vendor name, 200 characters, shows the name of the vendor and products can be grouped and displayed by vendor, and there is nothing else important to it in this table, except that it can be put on the products and find out which product from which supplier has arrived and each product can have one supplier and one brand so there is nothing else to talk about. There can be many products from the same supplier and putting it doesn't affect anything except how the products are displayed and grouped, and YOU set the base price!**

**Payment Methods:**

This is the table with the payment methods. There you put the name of the payment method and it does nothing but validate the deliveries for the orders and enable them to be fulfilled so that it can be done and calculated and judged with surgical precision how much the customer spent and how much they received the operator as a salary. Add as many payment methods as you want, just put them IN PLACE!!! Only administrators can change the data in this table!

**COLUMNS:**

**ID – the unique number of the payment method that you will use to pay for an order and delivery is determined by the database and cannot be changed, but with it you can quickly select it for delivery and payment of an order and you can add as many methods of payment you want, but if the payment method is not set, the deliveries will be invalid, so there is nothing to argue about it :)**

**MethodName – 200 characters, the name of the payment method, put whatever payment method you think is good and depending on what method you can provide to the customers of your company, whether it will be by credit card and POS terminals, contactless payments, direct payment or cash on delivery, and these are just some of the payment methods. Without a payment method the delivery of the order is invalid so know this.**

### Delivery Services:

This is the table where you put the delivery services and it is much more important than the previous 3 tables because the delivery cost is automatically calculated from the user customer account when calculating the deliveries and as we know delivery services always win no matter what it happens with the delivery, or at least that's how it usually is, and even without a delivery service set to the delivery, the delivery itself becomes invalid, as well as the order for it, so keep that in mind when working with this information system, and with other information systems as well -complicated by her. Only administrators can change the data in this table!

**COLUMNS:**

**ID - this is the unique and automatically database generated delivery service number which is used both to look up and to link the relevant service to the deliveries that use it and for each delivery there is one service and many deliveries can have many services, but this is the most secure way to connect supplies to services and search for services for quick selection when creating orders supplies.**

**ServiceName – this is the name of the relevant delivery service you are adding that you have a deal with to deliver your medication if it needs to be delivered to a location, so you can add it again with a different price if it provides different prices for different services, and not the same price and you can see on the website of the respective company just as the prices of the products can be found on the website of their supplier or their brand.**

**ServicePrice – this is the price of the delivery service that is used for the delivery and in fulfilling the delivery of the order and the same delivery service may have different prices and you can see this on the site of the delivery service itself, so you can orient yourself, and the price itself will be calculated from the customer's account when the delivery is marked with the relevant condition.**

### Products:

This is one of the most important tables and in it all but all the fields are important and if you don't put the product data correctly there it will be misleading both for you and for the customers of your company and for the operators who work in it and with this information system. Pay attention to everything that is written about this table so that you don't regret it later, because not only you can get confused, but also the people around you! Only administrators can change the data in this table!

**COLUMNS:**

**ID - the unique number of the product that is generated and recorded in the database at the time of insertion and which is permanent as long as the product exists and with it the product is selected accurately and easily and placed on the corresponding order without problems, keep track of both the product name and its ID number to know which product to put.**

**ProductName – 100 characters, the name of the product as it is on the site, it is also searched and selected and it is also displayed in the invoices, so be careful what you write for the name of the product so as not to make a mistake in the data if you are blinded as the creator of this system for pharmacy administration, one thing wrong when entering what you offer as products in the database and your reputation can go and I'm not the one to say.**

**BrandID - the unique brand number that groups the product and defines which brand category it is in and how to search by brand, this also goes into company reports so be careful not to mistake the brand of a product but also you get it wrong, with the appropriate rights you will still be able to fix your mistake, so don't worry. Also the number -1 is invalid so you know it's not a brand.**

**VendorID – the unique number of the supplier from which the product was taken, and through it this product can be grouped and searched by the relevant supplier, but for the basic price of the product and the markup, search on the supplier's website yourself, calculate and enter the product with the corresponding price. The responsibility is yours anyway, and not only for how you run the business, but also how you use this information system and how you take care of it. Also the number -1 is invalid so it is not a supplier.**

**ProductDescription - 200 characters, the product description, put as much data as possible about the product description to be as comprehensive as possible so that not only you know it, but also your company's customers know it to they know what to buy and you also know what to recommend for the various diseases they have to cure themselves. Through this you will be able to know which medicine is for which disease and thus judge which one to recommend to whom.**

**ProductQuantity - the amount of goods of a given product in the warehouse that you can find and that you can sell, if there is enough goods you will be able to fulfill an order for a given customer, if not, that customer will be waiting accordingly and you will of course notify them for this by phone or email, depending on what he gave or how he contacted you. Keep track of how many of the products are in the warehouse so you don't make a mistake, and when a new quantity of these products arrives, calculate it and change it against the calculated quantity in the database.**

**ProductPrice - the base price of the product, estimate it and calculate it by first seeing how much it is on the supplier's website and if necessary add a markup, of course, so that you also win in the end, but know that when you change the price of the product, the price of the orders in them will be recalculated and if you put a markup on the orders you will have to put it back in the orders, so be careful when changing it, especially if your pharmacy is involved in the dropshipping business.**

**ProductExpiryDate - the expiry date of the product, keep a close eye on it and make sure you don't sell expired products to your customers because then you might poison them and kill them, you don't want that, do you? Then look at the expiration date and if you're wondering where it is, it should be on the bottom or side of the package of the product in question, where the batch number is.**

**ProductRegNum – the registration number of the product as provided by the NHIF or the company from which it is supplied, I don't know much, but it is on the packaging and do not mix it up, otherwise it will not be valid and put it in the product description so that they know and what customers should look for when they ask you about a product as it is very important to have it.**

**ProductPartNum – the batch number of the product, it is located in the same place on the packaging as the expiration date of the product and without it the product will be invalid when it is recorded in the database or you will simply not be able to find it and navigate , so be careful whether to enter it or not and be very careful not to get it wrong, because then you might be banging your head against the wall if you don't know where to find it and fix your mistake.**

**ProductStorageLocation - the location of the product in your warehouse, this will help you find the product in your actual warehouse and deliver it, so this column does you a favor and if you move the product to another location in the warehouse you know where to find it and you will be able to edit the data in that column of the table as well as a reminder to both you and your colleagues where to look for it.**

THIS TABLE IS VERY IMPORTANT SO ANY CHANGE TO IT IS EXPENSIVE!!!

### ProductImages:

This table stores the images to the products. Although you don't have to put ten thousand images on each product, you can put images in it and set them for the respective product as they are downloaded from and uploaded to the database in binary format, so there is no danger if you have a web server that you put them in the web server and download them from there later if they hack it. Each product can have an unlimited number of images and they can be searched by anything but their binary code so...well you'll see now. Administrators and regular operators can change the data in a table so it is their responsibility.

**COLUMNS:**

**ID – the unique number of the image by which it can be found and easily edited and can be replaced if necessary with a better quality and so on. This number is generated by the database and is unique to all images and cannot be changed, but allows accurate data to be used and searched. This is one way and by unique number it is best to find them.**

**ProductID – the unique number of the product of which the image is. By means of a unique product number and name, it is easy to select and upload a product image to the database, and then to group the images themselves by the product for which they are set and uploaded, and when the product is selected, to select its corresponding images and by this way to show both product details and give an idea of ​​how it looks live or in an ad if pictures are provided for it and number -1 is invalid.**

**ImageName – the name of the image, it can be the name of the file, the name can be whatever you want the image to be, for example if you sell Aspirin put Aspirin\_1, Aspirin\_2 and so on for names so that you can know that it is for aspirin or for another drug you sell, I give an example of a way you can name your images, just be careful not to put the same name as duplicates are not allowed as seen and you can find the image that way too.**

**ImageData - this is the column that stores the image itself in binary format and depending on the image format (bitmaps are uploaded) and what the resolution is and what the potential is of the computer that is used for the database server and the speed of the internet the link may upload slowly or quickly so think before uploading the images you want to upload.**

This table was not as important as the others so use it informatively and as a nice addition to the data about the products you sell in your pharmacy using this information system :) .

### ProductOrders:

This table is critical because it has all the data about the orders and it is super important to approach it with great care because if you make a mistake here whether you are an administrator or a simple operator, it will cost your company dearly and it may be too late to you fix the things you got wrong and do a lot of things in the wrong direction, and when it comes down to it, you and your colleagues may end up bankrupt and fired prematurely. BE CAREFUL WHAT YOU DO AND MONITOR YOUR ORDERS ALL THE TIME AND SEE HOW THEY ARE INSTANTLY AND AUTOMATICALLY CALCULATED AND WHEN THE SYSTEM DEMANDS YOUR ATTENTION GIVE IT SO YOU DON'T STAY AT THE BOTTOM!!!! This table can be modified by administrators and ordinary operators and requires a great deal of responsibility. Administrators and operators can work on it.

**COLUMNS:**

**ID – the unique number of the order in the database, which, as in any previous table, is automatically generated and therefore always remains unchanged and guarantees the exact search and selection of the order, the product, the customer and the operator in it. You can use to find the order by its number and select it to put it on delivery, or just search and find it, the important thing is not to get the other data wrong!**

**ProductID – the unique number of the product to which the order belongs, for each order there can be one product, but for one product there can be many orders so put the product in place and by its number you can easily select it just make sure , that you have chosen the right product and entered it just before so that you don't have a huge failure at the end that really costs you dearly! Without a product set, also, the order will be invalid so you know that and number -1 is invalid!**

**DesiredQuantity - this is the desired ordered quantity of the product and if there is enough of it in the warehouse, the order can be fulfilled, if not, no, so be careful what quantity you put and check if the product itself is in stock, but even if you don't check, the system will check for you as long as you have put the correct quantity of the product as it is in your warehouse. Then the guarantee that everything will be calculated exactly will be 100% and you have nothing to worry about.**

**OrderPrice – this is the price of the order, it is usually automatically calculated by the system based on the base price of the product and the desired quantity in the order, but you can also add a surcharge by increasing the price of the product and it will still be calculated based on the desired quantity of the product, and if you want to calculate everything yourself, no problem, you can put a markup on the product and manually calculate and put the full price and it will be added as the final price of the order. This allows the information system to be used for both online pharmacy and physical pharmacy and drug dropshipping, although dropshipping specifically for these things is unlikely to be recommended, so be careful when pricing because the price determines the profitability of the product.**

**ClientID - this is the unique number of the user who has role 2, or client, and only then can he be selected as a client and his bill can be calculated when the order has certain statuses and about these statuses you will see later here. Whatever calculations happen, they only happen for the newly assigned customer, so be careful when adding customers! Orders in invoices that were made in one day are also grouped by customers, so this also makes it easier. Without a specified customer, the order is invalid, you should know that number -1 is also invalid!!!!**

**EmployeeID - this is the unique number of the user who has the role 0 - administrator or 1 - worker, because users with these roles are information system operators and only the one who last edited and changed the order will be charged the salary from it and usually in this column is your user number in the information system database. The changes and the calculation of salaries are only done to the newly assigned operator, so be careful who you assign so that you don't end up giving your work and you haven't put yourself in and your salary goes! Without an assigned operator, the order is invalid, know that number -1 is invalid !!!!**

**DateAdded – the date of order creation, is set by the database automatically when creating an order and is used to search for an order by date and cannot be changed in the ways normally set in order to protect the data and maintain its integrity and accuracy. This is one way to know which order was created when and group it into the invoices so think about it when you change and mess this up outside of the way the information system works you will see the consequences of that.**

**DateModified – the order modification date, which changes whenever changes are made to the order and is determined by the database, so anyone who tries to change otherwise will get themselves in trouble as this is not done for decoration, but to show when which order has been changed and to give knowledge of what changes there are and when so you will only get yourself into trouble, for by touching something that is not to be touched you will see what will follow for yourself when you see what it was not done as the people, or it was not done at the date it should have been done. For this reason, just so you know, this date is automatically inserted from the database, and yes.**

**OrderStatus - the status of the order and just like the roles, it has the following valid statuses, ensuring that the order is correct and valid and calculating the amount of products in the warehouse, the salary of the operators and the cost of the customer, so be careful when you put these statuses! It has the following valid states:**

0 - awaiting processing

1 - prepaid - paid in advance

2 - paid in the moment of delivery – paid at the moment of delivery

3 - directly paid – paid directly

4 - generating invoice – creating an invoice, you can optionally put if you are creating an invoice

5 - generating report – creating a report, you can optionally put if you are creating a report

6 – processing – in processing, it usually goes into this state if it has been paid in advance or directly

7 - canceled order – can go to this state from any payment state before completing or completing an order

8 - returned order – same as refused, but for returning the product, usually before completion, but may also be after completion of the order

9 – completed – successfully completed order and sold product.

When setting the last three statuses on the order, it cannot be touched anymore in the software, but these statuses are the only valid ones, so REMEMBER THEM WELL!!! Also the quantity of the product and the account of the users set as customers are checked and if they are not enough the order will not be able to be fulfilled regardless of the status you have set!

**OrderReason - the reason an order was created and/or changed and through this you can see and show when you changed and the system in some order states and order calculations will change the reason itself and put a reason in English where to let you know what has happened and to keep you informed. Read carefully to know when what was changed, who last made changes and how they made them :)**

### OrderDeliveries:

This is the order delivery table and it's super important to know which delivery goes to which order because it gives a huge amount of information, especially when creating company confidential reports and invoices to give to customers when we fulfill their orders! of deliveries and orders are automatically fulfilled so be careful when setting the status, payment methods and delivery services as even if everything is calculated as with orders, human error is also a factor as providing wrong information can be fatal and also as with orders, returned, fulfilled and refused deliveries cannot be changed once they have been set.

Administrators and operators can work on it.

**COLUMNS:**

**ID – the unique delivery number in the database, it is created automatically, cannot be changed and is used to search for deliveries and easily find everything related to them. Enough said as the unique number works the same way in all tables!**

**OrderID – the unique number of the order, only by number it can be searched and set, so remember the order number when you set it for delivery so you know it can go bad. Without a valid order number, the delivery is also invalid and cannot be fulfilled, so do the math when using this information system yourself and know that number -1 is invalid!**

**DeliveryServiceID – the unique number of the delivery service, be careful when you put it and make sure it is the service with which the customer requested and is waiting for the product to be delivered, because there can be a big misunderstanding at the end when paying the bill and then you will you pay for the consequences out of your own pocket or the boss will pay for you and it will get nasty, but it also depends on your company policy! Also remember: no valid delivery service, the delivery is invalid and will not be fulfilled no matter what you do to it, so think about it and know that number -1 is invalid! Everyone has reason in their soul and there is something to use it for!**

**PaymentMethodID - the unique number of the payment method, put it depending on the payment method the customer paid for the product and what payment method you offer to the customers, so be aware that there can always be misunderstandings and the burden falls on your shoulders and on that of your colleagues, and since everything is calculated automatically, it is important NOT TO MAKE MISTAKES! Without a payment method the delivery is invalid so always put valid payment methods, those with the number -1 are not valid so be aware!**

**CargoID - this is one of the most important columns in this table because it contains the waybill number provided by the shipping service in the waybill document and a blank field and a field with "TSTCARGO123" are invalid so you know without having bill of lading "number" you will not be able to fulfill orders and deliveries that are received when the delivery is fulfilled, so you know when you manage your business with this information system.**

**TotalPrice - this is the total price of the delivery, calculated automatically from the database and not automatically calculated. The calculations are based on the price of the order and the price of the delivery from the set delivery service and when the price of the order changes you will have to change the delivery because it does not change automatically, but when changed it is recalculated so you know when you change because this is important and you will not be able to pass valid information on either your invoice or the confidential company reports that this information system can make.**

**DateAdded – this is the date the order delivery was added and is determined by the database. It is involved in the grouping of the delivery in the invoices and is made immutable even from the database, so if you change it you will see the result, I warned you!**

**DateModified – this is the delivery modification date and it changes automatically when a delivery modification is executed and if you touch it you can invalidate the data as well as the creation date so there is no this and the last time I warn you , you after reading all your documentation know what to do, especially if you also have previous experience with administrative and information systems in business environments.**

**DeliveryStatus – this is the status of the delivery and calculations based on the status can be performed when the delivery service, order and payment method are valid ie. are not numbered -1 and when the customer of the order reaches his bill to pay for the delivery then the delivery is considered completed and the calculations are performed then, otherwise it gives an error and is not performed, just like with orders. Delivery states cannot be changed and are fixed in the logic, so the following states are valid:**

0 - pending delivery – pending delivery, the initial state

1 - prepaid - prepaid delivery

2 - directly paid – paid directly, if paid on the spot

3 - paid on delivery – paid during delivery, valid only when the bill of lading is valid

4 - generating invoice – when creating an invoice, only set it if you want

5 - generating report – when creating a report, only set it if you want

6 - on the move – on the move, automatically goes when conditions related to payment are set

7 - canceled delivery – denied delivery, the same as for orders, but for deliveries

8 - returned delivery, same as for orders, but for deliveries

9 - delivery completed – delivery completed, same as for orders, but for deliveries

**IMPORTANT: WHEN THE STATUS OF DELIVERIES CHANGES IT ALSO CHANGES AND IS SYNCHRONIZED DUE TO THEIR CLOSE CONNECTION BECAUSE BECAUSE AS WITH ORDERS AND DELIVERIES IF THEY ARE FULFILLED, RETURNED OR REFUSED THEY CANNOT BE FORGOTTEN THE SOFTWARE MEN REACHED THIS STATE ONCE!! !**

**DeliveryReason - The reason this delivery was created or modified. When certain statuses are reached, as with orders, the database creates its own statuses to inform how the delivery has changed, and these are usually in English.**

### Logs:

This is one of the most important tables because it records all changes to the tables and gives important information even if it is cropped and not displayed in full due to the string limit in SQL Server, but the information is important to know both by operators and administrators although software can only read from it and changing them is dangerous. Both administrators and operators have access, because this should be known by everyone in order to take measures in time!!!

**COLUMNS:**

**ID – the unique number of the journal, which, as we already know, cannot be changed and is created only by the database. I have nothing more to say and repeat myself!**

**LogDate - the date of the log, it is set by the database and cannot be changed, it shows what happened when and why it happened, there is a lot of data and it is slow to load, but it is worth it in the end**

**LogTitle – the log title, set by the database depending on what happened, usually automatic and created by the triggers, more on these later**

**LogMessage - the message associated with the database event that occurred shows what happened in brief and sets the old number of the field in the database that was changed.**

**AdditionalLogInformation – the huge amount of additional information that can be fit for a given table to understand as much information as possible to clearly see the details and all.**

**ALTERING ANY INFORMATION IN THIS CHART IS STRICTLY FORBIDDEN BECAUSE IT SHOWS WHAT IS GOING ON IN ALL THE OTHERS!!!!**

## STORED PROCEDURES:

The stored procedures in this database have only a part of half the logic related to all the data stored and processed in the tables, and they are very important because they ensure the safe and correct addition, deletion, modification, reading and calculation of the data and although not all of these are included in the software part for obvious reasons, they are important and should be taken care of, but A LOT and in this section I will explain exactly why! If you use them right they will be your best friend when working with this information system with or without the software, but if you get them wrong they will be your worst nightmare and there is no middle ground so BEWARE!!!!

Since I'm writing this at night instead of grouping by tables, I'll be running the procedures as listed in SQL Server Management Studio, so know that.

**Procedures:**

### AddBrand

**Parameters:**

**@brandname – the name of the brand**

**Usage:**

Adds a new brand to the database, only the brand name can be added, so adding is easy and nothing more as seen.

### AddDeliveryService

**Parameters:**

**@servicename – the name of the service**

**@price – the price of the service**

**Usage:**

Adds a new delivery service to the database, requiring the name of the service and the price of that service because they are important in calculating user accounts when fulfilling orders and deliveries and calculating the full price of orders and deliveries

### AddLog

**Parameters:**

**@logdate – the date of the log**

**@logtitle - the title of the log**

**@logmessage – the log message**

**@additionalinformation – additional information in the log**

**Usage:**

This procedure is only used by the triggers and not used anywhere in the software, it's just for the system and the database to keep a log of everything that happens and for us to read from it, so yes if it will be used by the software later on fine , but otherwise not. This procedure is only made to be used by the system and possibly system administrators, so yes.

### AddOrderDelivery

**Parameters:**

**@orderid – the order number as it is in the database**

**@serviceid – the delivery service number as it is in the database**

**@methodid – the number of the payment method as it is in the database**

**@cargoid – Bill of lading number according to the bill of lading document provided by the shipping service.**

**@deliveryreason – The reason for adding this delivery**

**Usage:**

This procedure is used to correctly add supplies to the database by automatically calculating when adding the full price and this is done to reduce human error as not everyone can even think to have a calculator with them and also the work is makes it so easy because with one click, several things can be done through this stored procedure.

### AddPaymentMethod

**Parameters:**

**@methodname – the name of the payment method**

**Usage:**

Through this procedure, a new payment method is added to the system, and just like when adding a brand, only the name of the payment method is needed, nothing else, and the payment method itself is used to validate and authenticate the delivery it is associated with.

### AddProduct

**Parameters:**

**@productname – the name of the product we are adding to the database**

**@brandid – the brand number in the database we want to add it to**

**@vendorid – the number of the vendor in the database we want to add it to**

**@description – the product description, the more comprehensive the better**

**@quantity – the quantity of this product as it is actually in our warehouse**

**@price – the base price of the product, which we determine after seeing the price of the product on the supplier's site, to which we add it to the database**

**@expirydate – the expiration date of the product, we can check it on the packaging and write it down**

**@regnum – the product registration number can still be found on the packaging and is an important part of its sale and enquiry.**

**@partnum – the batch number of the product found by the expiration date, also an important part of selling and inquiring about the product**

**@storagelocation – the location of the product in the warehouse as it is and a reminder of where it is for the future.**

**Usage:**

This stored procedure adds new products to the database with all the details about them and when you add them make sure you look carefully at everything on the packaging and the site they are being shipped from because even a small mistake can mislead both you and and everyone around you and those you sell the product to. BE VERY CAREFUL WHEN USING THIS PROCEDURE!!!!

### **AddProductImage**

**Parameters:**

**@productid – the number of the product this image is for**

**@imagename – the name of the image, you can set your own name or use the file name**

**@imagedata – the image itself in binary format, depending on its size it can be slow or fast to upload**

**Usage:**

This stored procedure adds product images to the database. Images are in binary format and are downloaded and decoded as images by the software, and when uploaded they are encoded in binary format and usually in PNG format so that they can be uploaded and transferred easily between the software and the information system database, but the resolution and all other attributes are a factor anyway, so consider what images to upload and at what quality so you know how much load your server can take while uploading them in binary format to the database.

### AddProductOrder

**Parameters:**

**@productid – the number of the product for which the order will be, without it the order will be invalid**

**@desiredquantity – the desired quantity of the product requested in this order**

**@priceoverride – this is when you put a markup on the price of the product, put a higher price than the product and it will be multiplied by the quantity and voila, product with the markup you want**

**@clientid – the number of the user who is a customer and placed the order, this user must have the role customer, otherwise you will not be able to select him as a customer, and without a customer the order is invalid**

**@employeeid – the number of the user who is an operator in the company and once you have added and/or changed you are the one who processed and will receive the salary in the end. Without a valid operator, this order will be invalid.**

**@orderreason – the reason you added the order so that it can be known and processed in the future if necessary or processed and calculated when its status changes in the database.**

**@overridepriceastotal – a boolean value that is added when you want to calculate the price of the order yourself, set it to 1 and put your own price that you put in the @priceoverride parameter and the system will accept it as the final price if it is greater than the pre-calculated total order price. Use it only if you can count**

**Usage:**

This procedure is used to safely add an order to the database. The date of addition and change is set by the database, and the decision and calculation of prices is done in the following way:1. When the price in @priceoverride multiplied by the desired quantity of the product is lower than the pre-calculated price, the pre-calculated price is set, which is calculated from the base price of the product and the desired quantity in case the product is valid.2. When the price in @priceoverride multiplied by the desired quantity of the product is higher than the previously calculated price, it is taken as the new price of the product and as the final price of the product. 3. When setting @overridepriceastotal to 1 and the value of @priceoverride without multiplying by the desired quantity of the product is greater than the pre-calculated price, it is set as the final price of the order. In this way, there are three ways and the information system can adapt the ways you want to create orders, but it will not accept a price lower than the pre-calculated price, because then you will only lose when you sell your products, and you hardly want that when you start a business. Calculations are automatic, but you can also manually calculate and release your own price as full when adding, but only if it is higher than the price precalculated by the database.

### AddUser

**Parameters:**

**@username – the username of the user you will be inserting into the database**

**@password – the password of the user you will insert into the database**

**@displayname – the name you want the user to appear as in the database to other users**

**@birthdate – the date of birth of the user you want to insert**

**@phone – the phone number where you can contact the user for feedback in case of an inquiry or when sending products to him by courier**

**@email – the email address with which you can contact the user in case of an inquiry or for any other type of feedback**

**@address – the user's address to which you can send medicines if necessary using a courier**

**@profilepic – the user's profile pic, having only one pic, no more pasting, only replaceable, and just like product images, they are saved binary encoded with PNG encoding and then downloaded again and decode**

**@balance – the user's account that he has deposited to pay, or his salary, depending on his role in the database**

**@diagnose – the diagnosis of the user if he is a client, through which it is understood for him what his illness is and what medicine he is prescribed to treat it with**

**@role - the role of the user in the database, on which his access to the data depends, and only 3 roles are valid:0 - XPAdmin - Administrator1 - XPEmployee - Operator/Worker2 - XPClient - Client/Patient**

**Usage:**

Through this procedure, a user is added to the database and their role is set, and their username and password are then manually added to the list of users, not just to the database users table to connect and access the data in it depending on his role, and his corresponding role is set along with this to ensure his correct rights when accessing the system.

### AddVendor

**Parameters:**

**@vendorname – the name of the vendor to add to the database, this is all that is required**

**Usage:**

This stored procedure adds a new supplier to the database so that a product can then be added to it or simply used for later, the name alone is important as the focus of this database is mostly on users, their orders, products and deliveries.

### DeleteBrand

**Parameters:**

**@id – the brand number in the database**

**@brandname - the name of the brand in the database**

**Usage:**

This stored procedure deletes a brand from the database table using all its data, namely its name and its database number, if all parameters are not included it deletes everything from the table, so this function is not included in the software, and can be used to either delete a counter mark or all marks without exception, sort of like a kill button.

### DeleteBrandByID

**Parameters:**

**@id – the brand number in the database**

**Usage:**

This stored procedure deletes the brand by its number in the database and is the safest way to delete it without affecting important things. This only deletes what is needed and will not delete more than what is shown.

### DeleteDeliveryService

**Parameters:**

**@id – the delivery service number in the database**

**@servicename – the name of the delivery service in the database**

**@serviceprice – the price of the delivery service in the database**

**Usage:**

This stored procedure deletes a delivery service by all its parameters, if not it deletes absolutely everything from the tables and it's like a database self-destruct button so it's not used in software.

### DeleteDeliveryServiceByID

**Parameters:**

**@id – the delivery service number in the database**

**Usage:**

This stored procedure deletes a delivery service by its number, therefore deleting only what is needed and not anything else, thus ensuring the safe deletion of data and exactly that data field you want!

### DeleteLog

**Parameters:**

**@id – the log number in the database**

**@logdatefrom – the date to search the log from**

**@logdateto – the date to search the log to**

**@logtitle – the title of the log**

**@logmessage – the log message**

**@additionalinformation – additional information in the log**

**Usage:**

It deletes a log from the log table by specific parameters, or all logs, and this procedure even if it exists should not be used except as a last resort as it actually works from a button to destroy the data.

### DeleteLogByID

**Parameters:**

**@id – the log number in the database**

**Usage:**

It deletes a log exactly by its corresponding number in the table, so it will delete exactly one thing, not all of them, and in a safe way. This procedure, even if it exists, should not be used except in very extreme cases, and for this reason is not included anywhere except in the database.

### DeleteOrderDelivery

**Parameters:**

**@id – order delivery number in the database**

**@orderid – the number of the order to which this delivery belongs in the database**

**@serviceid – the delivery service number for the relevant delivery**

**@methodid – The payment method number for this delivery**

**@cargoid – the bill of lading number for the respective shipment**

**@price – the full price of the relevant delivery**

**@dateaddedfrom – the date added from which to search for the delivery**

**@dateaddedto – the date added to search for the delivery**

**@datemodifiedfrom – the modified date from which to search for the delivery**

**@datemodifiedto – the modified date to look for delivery to**

**@status – the status of the delivery to search for**

**@reason – The reason for this delivery**

**Usage:**

It deletes either one delivery by all its counter parameters or all deliveries at the same time and is intended to be used only in extreme cases as it is a key to destroy the data in the delivery table.

### DeleteOrderDeliveryByID

**Parameters:**

**@id – the target delivery number**

**Usage:**

It is used to delete a delivery from the database's delivery table, and it deletes exactly one thing instead of several things at once, which always ensures a safe deletion from the database.

### DeletePaymentMethod

**Parameters:**

**@id – number of the payment method as recorded in the database**

**@methodname – the name of the payment method as recorded in the database**

**Usage:**

Use to delete either one counter payment method or all payment methods at once as it is not used in the database software and is a dangerous procedure.

### DeletePaymentMethodByID

**Parameters:**

**@id – number of the payment method as recorded in the database**

**Usage:**

It is used to safely delete payment methods from the database, ensuring that exactly one method is always deleted without the risk of losing other data.

### DeleteProduct

**Parameters:**

**@id – the product number in the database**

**@productname – the name of the product in the database**

**@brandid – the brand number of the product in the database**

**@vendorid – the vendor number of the product in the database**

**@description – the description of the product in the database**

**@quantity – the quantity of the product in the database**

**@price – the base price of the product in the database**

**@expirydatefrom – the expiration date from which to search for the product**

**@expirydateto – the expiration date to search for the product**

**@regnum – the product registration number**

**@partnum – the part number of the product**

**@storagelocation – the location of the product in the warehouse**

**Usage:**

It deletes either a specific product or all products from the database without exception, and this procedure is also dangerous, so it should not be used except in extreme cases. If you want a specific product give all the parameters of the product, if not it will delete everything without exception and you will not be able to return anything.

### **DeleteProductByID**

**Parameters:**

**@id – the product number in the database**

**Usage:**

It safely deletes the product from the database and guarantees the deletion of exactly one product you want, not several or all, which is much safer than the procedure of deleting one or all products, which is only used in the most the last case when there is nothing more to do.

### DeleteProductImage

**Parameters:**

**@id – the number with which the corresponding image is recorded in the database**

**@productid – the number of the product for which the image is**

**@imagename – the name of the image it is in the database with**

**Usage:**

Deleting a specific image, or all images, this stored procedure is dangerous and should not be used except in extreme cases where you really need to delete absolutely everything in the tables or something specific that cannot otherwise be found.

### **DeleteProductImageByID**

**Parameters:**

**@id – the number of the image in the database, exactly what should be searched for**

**Usage:**

It deletes exactly one specific image and by its number, suffice it to say, this procedure safely erases everything it is given without erasing anything other than it.

### DeleteProductOrder

**Parameters:**

**@id – the order number in the database**

**@productid - the product number to the order**

**@quantity – the desired quantity of the order**

**@price – the price of the order**

**@clientid – the client number corresponding to this order**

**@employeeid – the number of the operator who last made changes to the order**

**@dateaddedfrom – the date added from which to search the order**

**@dateaddedto – the date added to search for the order**

**@datemodifiedfrom – the modified date from which to search the order**

**@status – the status of the order**

**@reason – the reason for which the relevant order was added and/or changed.**

**Usage:**

It deletes either a specific order if all parameters are set or all orders and this is a killer procedure to be used only in the most extreme cases if it works at all!!!!

### DeleteProductOrderByID

**Parameters:**

**@id – the order number that is in the database.**

**Usage:**

Deletes a specific order by number, safely, without losing more data than should be deleted. Enough said!

### DeleteUser

**Parameters:**

**@id – the user number in the database**

**@username – the username of the user who logs into the database**

**@password – the password with which the user logs into the database**

**@displayname – the name of the user as seen by others**

**@birthdatefrom – the date of birth the user is from**

**@birthdateto – the user's date of birth**

**@phone – the user's contact phone**

**@email – the user's email address for contacts**

**@address – the user's real-life address to which deliveries can be made**

**@balance – the user's account, it could be their salary, it could be the one they spend from**

**@diagnose – the user's diagnosis for which medication is being prescribed**

**@registerdatefrom – the user's registration date from which he is in the database**

**@registerdateto – the user's registration date to which he is in the database**

**@role – the user's role in the database and in the company**

**Usage:**

This procedure deletes users from the database according to criteria, usually a single user, but when its parameters are invalid it will delete everything like a huge hand of doom for the table and its relationships with other tables. Just remember that in addition to the table, you must also manually delete the data for user login and the user itself from the database and server to avoid unauthorized access.

### DeleteUserByID

**Parameters:**

**@id – the user's number in the database**

**Usage:**

The safe way to delete exactly one user from the database table. Remember you also need to delete his login details from the user list and his server login list after that, the system will take care of other things by itself

### DeleteVendor

**Parameters:**

**@id – Vendor number in database table**

**@vendorname – the name of the vendor in the database table**

**Usage:**

As always, a dangerous procedure, it either deletes a specific provider or deletes all provider information in the database table, so be careful when querying with it, because with invalid and empty parameters it deletes everything, otherwise it deletes one and/or more providers according to the relevant parameters.

### DeleteVendorByID

**Parameters:**

**@id – provider number in the database**

**Usage:**

It deletes exactly one vendor by its number in the database table, ensuring safe deletion without losing any other data, so you know what to use and how to use it.

### GetBrand

**Parameters:**

**@id – the brand number in the database**

**@brandname – the brand name in the database table**

**Usage:**

Searches according to the set criteria, if they are valid it shows one or several results in the search engine, and if they are invalid it shows all results without exception and thus one or all brands can be found in two ways

### GetDeliveryService

**Parameters:**

**@id – the delivery service number in the database**

**@servicename – the name of the delivery service in the database**

**@serviceprice – the price of the delivery service in the database**

**Usage:**

Delivery services are searched according to the specified criteria and one or more results are obtained if the parameters are valid, but if they are not valid, all results will be shown without exception. A nice and simple stored procedure design that can do two things at once instead of 1000000 stored procedures that each do one thing is much nicer, Huh?

### GetLog

**Parameters:**

**@id – the log number in the log table**

**@logdatefrom – the date to search the log from**

**@logdateto – the date to search the log to**

**@logtitle – the log title as in the table**

**@logmessage – the log message if any**

**@additionalinformation – additional information in the log if available**

**Usage:**

Simple and easy operation as in other getters so far, it gives one or more search results with all valid criteria, otherwise it shows all the log table results without any exception, so simple and logical and you will understand it by working in the software and in the database data.

### GetOrderDelivery

**Parameters:**

**@id – the delivery number in the database**

**@orderid – the order number for the respective delivery**

**@serviceid – The delivery service number for this delivery**

**@cargoid – Bill of lading number according to the bill of lading document issued for proof of delivery**

**@price – the full price of the relevant delivery**

**@dateaddedfrom – the creation date of the delivery to search from**

**@dateaddedto – the creation date of the delivery to search for**

**@datemodifiedfrom – the delivery modification date to search from**

**@datemodifiedto – the delivery modification date to search for**

**@status – the status of the delivery being searched for**

**@reason – the reason for the delivery to search for**

**Usage:**

As with other getters, either a single supply is found from the supplies table, or all supplies are retrieved without exception, making it fast, easy, and with few database procedures.

### GetPaymentMethod

**Parameters:**

**@id – the number of the payment method as it is in the database**

**@methodname – name of the payment method as in the table**

**Usage:**

Searches for payment methods and shows one specific method for valid parameters and shows all payment methods for invalid parameters, with one stored procedure it is better than with many to do a data search even if it is not always very accurate.

### GetProduct

**Parameters:**

**@id – the product number in the database**

**@productname – the name of the product in the database**

**@brandid – the brand number of the product in the database**

**@vendorid – the vendor number of the product in the database**

**@description – the description of the product in the database**

**@quantity – the quantity of the product in the warehouse as it is in the database**

**@price – the base price of the product in the database**

**@expirydatefrom – the expiration date of the product to search from**

**@expirydateto – the expiration date of the product to search for**

**@regnum – the product registration number in the database**

**@partnum – the part number of the product in the database**

**@storagelocation – the location of the product in the warehouse**

**Usage:**

Searches for a product by specified criteria and parameters, displays only one product when the parameters are valid, otherwise displays all products saved in the database

### GetProductImage

**Parameters:**

**@id – the number of the product image in the database**

**@productid – the number of the product to which the image belongs in the database**

**@imagename – the name of the image as it is in the database**

**Usage:**

Searching for an image by the specified parameters, if they are valid, it will show you the image you are looking for, if they are invalid, it will show you all possible images in the database

### GetProductOrder

**Parameters:**

**@id – the order number in the database**

**@productid – the product number for the relevant order**

**@quantity – the desired quantity of the respective order**

**@price – the price of the relevant order**

**@clientid - the number of the user-client of the relevant order**

**@employeeid – number of the user-operator of the relevant order**

**@dateaddedfrom – the date added from which the order is being sought**

**@dateaddedto – the date added to which the order is being sought**

**@datemodifiedfrom - the modification date from which the order is being searched**

**@datemodifiedto – the modification date to which the order is being sought**

**@status – the status of the requested order**

**@reason – the reason for adding and/or changing the relevant order**

**Usage:**

With this procedure, you search for an order by all its parameters, if you enter valid parameters, it will show you the order you are looking for, and if not, all possible orders, remember, the order number is requested, especially if you have not remembered the product number, but if you know all the parameters then it will work for you!

### GetUser

**Parameters:**

**@id – the user's number in the database**

**@username – the username for the database login**

**@password – the password for the database login**

**@displayname – the name by which users are seen by other users in the database**

**@birthdatefrom – the date of birth from which the user is being searched**

**@birthdateto – the date of birth to which the user is being searched**

**@phone – the user's contact phone number where you can be contacted for feedback**

**@email – the user's feedback email address**

**@address – the address to which you can deliver the drug to the user if necessary**

**@balance – the account of the user, what it will mean depends on his role in the system**

**@diagnose – the treatment diagnosis you are medicating the user on**

**@registerdatefrom – the registration date from which to search for the user**

**@registerdateto – the registration date to search for the user**

**@role - the role of the user in the system, only three roles are valid:0 - XPAdmin - Database administrator1 - XPEmployee - Database operator2 - XPClient - System client**

**Usage:**

Either you set all the parameters to be valid and you get the user you are looking for as a result, or all possible users in the database will appear, the choice is simple and logical and you will orient yourself well.

### GetVendor

**Parameters:**

**@id – the product supplier number in the database**

**@vendorname – the name of the product vendor in the database**

**Usage:**

Searches for user providers by all their criteria, or shows all users if the data is invalid, or one provider, or all providers, and so on.

### UpdateBrandByID

**Parameters:**

**@id – the number of the brand you will change**

**@new\_brand\_name – the new name you will give to the brand**

**Usage:**

With this procedure, you change exactly the brand you want to change, and you only need to change the name, nothing else!

### UpdateDeliveryServiceByID

**Parameters:**

**@id – the number of the service you will change in the database**

**@new\_service\_name – the new name you will give the target service**

**@new\_service\_price - the new price you will put on the service**

**Usage:**

You change which service you want and exactly the one you want and no other, safely, guaranteed and exactly as you should in a business system!

### UpdateLogByID

**Parameters:**

**@id – the log number in the database**

**@new\_log\_title – the new log title**

**@new\_log\_message – the new log message**

**@new\_add\_info – the new additional information in the log**

**Usage:**

It is not used anywhere but at least it can be used if something is wrong with the logs to fix it which is not recommended as there can be huge abuses and you will guess why so BE CAREFUL when working with this procedure .

### UpdateOrderDeliveryByID

**Parameters:**

**@id – the delivery number you are targeting**

**@new\_order\_id – the number of the new order to the delivery**

**@new\_service\_id – The number of the new delivery service to the delivery**

**@new\_method\_id – the number of the new payment method for the delivery**

**@new\_cargo\_id – the new waybill number for this shipment**

**@new\_status – the new delivery status**

**@new\_reason – the new reason the delivery is being changed**

**Usage: This procedure not only changes the delivery but automatically calculates the new full price and the only way the new price will be calculated is when you perform a delivery change for the order you changed, there is no other way so you know if you changed change the price of an order and the delivery, even if you do not set new values, the new full price will be calculated.**

### **UpdatePaymentMethodByID**

**Parameters:**

**@id – this payment method you will change**

**@new\_method\_id – the name of the payment method you will put**

**Usage: With this stored procedure, you edit exactly what you want among all payment methods and do it in a flash! Short, straight, simple and clear, you change the name of the payment method as there is nothing else to change**

### UpdateProductByID

**Parameters:**

**@id – the number of the product you want to edit**

**@new\_product\_name – the new name you will give the product**

**@new\_brand\_id – the number of the new brand to which you will put the product**

**@new\_vendor\_id – the number of the new vendor to which you will put the product**

**@new\_description – the new description you will put on the product**

**@new\_quantity – the new quantity of the product that you will put**

**@new\_price – the new base price of the product you will put**

**@new\_expiry\_date – the new expiration date you will put on the product**

**@new\_reg\_num – the new product registration number**

**@new\_part\_num – the new part number of the product**

**@new\_storage\_location – the new location of the product in the warehouse**

**Usage:**

With this procedure you edit the products depending on what is happening and it is your responsibility how you edit them, what you do and so, you will be able to change every part of the product details as it has changed and as you see fit. Changing products is important, and this procedure gives you exactly that opportunity.

### UpdateProductImageByID

**Parameters:**

**@id – the number of the target image in the database**

**@new\_product\_id – the number of the new product this image will go to**

**@new\_image\_name – the new name of the image you want to put**

**@new\_image\_data – the new image you upload to the database is saved in binary format and decoded when it is downloaded from the database**

**Usage:**

Have an image that is wrong and want to change it? You can, with this procedure, change the name, the product number and the image itself in binary format with PNG encoding for easy upload and download to and from the database, and so you can change the images you want and put them on the different products.

### UpdateProductOrderByID

**Parameters:**

**@id – the number of the target order to change**

**@new\_product\_id – the number of the new product to the relevant order**

**@new\_desired\_quantity – the new desired quantity of the product in the order**

**@new\_price\_override – the new price you will assign to the order**

**@new\_client\_id – the number of the new user-client for whom the order is**

**@new\_employee\_id – the number of the new user-operator who processed the order. It's usually you!**

**@new\_status – the new status of the order, which you will put when changing it**

**@new\_reason – the new reason you are changing the order**

**Usage:**

You change the orders and be careful because everything is chosen exactly and you can set the price in three ways:1. If you put a higher price than that of the product, it will be multiplied by the desired quantity and will be calculated as a new price2. If you put a higher price than the price of the product calculated in advance by the system, it will be the final price3. When the above conditions are not met, the price calculated in advance by the system is set to prevent undervaluation of the product and other types of human error. BE CAREFUL HOW YOU EDIT THE ORDERS, BECAUSE THE CALCULATIONS IN THIS STORED PROCEDURE ARE ONLY A SMALL PART OF THE CALCULATIONS THAT WILL BE FOLLOWED THAT'S WHY ANY CHANGE IS IMPORTANT TO BOTH ORDERS AND DELIVERIES AND YOU'LL SEE IT SOON!!!!

### **UpdateUserByID**

**Parameters:**

**@id – the number of the target user in the database**

**@new\_user\_name – the new database login username**

**@new\_password – the new database login password**

**@new\_display\_name – the new name by which the user will be seen by other users**

**@new\_birth\_date – the user's new birth date, for security purposes only admins can change it**

**@new\_phone – the new phone number to contact the user**

**@new\_email – the new email address to contact the user**

**@new\_address – the new address to which the medicines will be delivered if the user cannot come to pick them up at the place of ordering**

**@new\_profile\_pic – the user's new profile picture, one profile picture for each user**

**@new\_balance – the user's new account, may mean something different to the role he has in the system.**

**@new\_diagnose – the user's new diagnosis, according to which drugs will be given to cure him.**

**@new\_role – the new role of the user, on which his position in the system depends. Valid roles are only:0 - XPAdmin - Database Administrator1 - XPEmployee - Database Operator2 - XPClient - Database and System Client**

**Usage:**

Through this procedure, you change your user account in the database and only if you are database administrators - the data of other users, but only if you are system administrators you can translate the corresponding data from the table in the server itself and in the list of users and roles of the database itself data so BEWARE!!!

### **UpdateVendorByID**

**Parameters:**

**@id – the number of the product supplier in the database that you want to edit**

**@new\_vendor\_name - the new name you want to give to the product vendor**

**Usage:**

With this procedure you edit the names of any suppliers you have put in the database so you can then select them in the database and select products to be in them too!

**Every stored procedure, table and trigger is executed depending on the rights you have as users and when we get to the roles you will see the hierarchy.**

## TRIGGER:

**THE REST OF HALF OF THE LOGIC OF THIS INFORMATION SYSTEM IS IN THE TRIGGERS!!!! THEY ARE ITS BRAINS AND HEART AND WITHOUT THEM NOTHING CAN HAPPEN SO READ CAREFULLY WHAT EACH TRIGGER DOES TO KNOW WHAT THE ENTIRE DATABASE LOGIC IS IN THE SYSTEM!!! TESTED, POLISHED AND WORKING, THEY ENSURE PROPER DATA HANDLING AND ENSURE CORRECTNESS AND OF COURSE THEY KEEP DATABASE LOGS AND OTHER WAYS TO LET YOU KNOW WHAT IS GOING ON THROUGHOUT THE SYSTEM!!!!**

### Users\_OnAdd

**Execution: after adding a user to the user table in the database**

**Function: Notifies the addition of a user to the database for the SERVER SYSTEM ADMINISTRATORS to add them to the database as a user, create a login for them and put them in a role against the recorded role in the table, providing them with the correct access to the database and the rights to manipulate the data therein. This is very important because database login through admin software can become MANDATORY with server login and integrated security is disabled for admin software to work according to the rights of every database user WITHOUT ANY EXCEPTION like only operators are allowed to enter, but not customers, because operators are responsible for the administration of the system and the company, and customers are outsiders who benefit from its services regardless of whether they are registered in the system and can see what has happened and order online if this system is attached to a website or not. Even if the database can be entered by the customers and only read with the right to only change the user profile and the orders, for example to refuse them if they have made them, this is not safe, because they can be made huge system breaches due to order and system change rights SO DON'T ALLOW CUSTOMERS TO ENTER THE SYSTEM UNLESS THEY ARE JUST TO VIEW PRODUCTS AND ORDERS!!!!! Be accountable to this system and this trigger does half the job by showing you the new registration details to add to the database and the admin role in the information system and the sysadmin role on the server and database are completely different so NEVER MIX THEM UP !!!! ANY ERROR CAN BE FATAL TO THE SYSTEM UNLESS YOU KNOW HOW TO FIX IT YOURSELF AS A SYSTEM ADMINISTRATOR, NOT A DATABASE ADMINISTRATOR!**

### Users\_OnUpdate

**Execution: after changing user data in the user table of the information system**

**Function: Notifies everyone and creates logs of the change of user data and SYSTEM ADMINISTRATORS, not database administrators to change the login data of the respective users and their roles if necessary. Regarding changing roles to preserve data and order integrity, if a user's role is changed as a number in the database table, all orders for which the user was an operator or customer are reset (numbered -1 in the corresponding fields) and operators must re-enter them depending on the role so that no additional errors occur in the system and the orders are fulfilled. Thus, integrity and validity are maintained and there is automation and removal of some of the burden on operators, whether administrators or ordinary operators, leaving them to focus on what matters most, namely monitoring the validity of data and securing the rights of all other users if necessary and are administrators of the server, not only of the data, and if they see mistakes made by someone else, to fix them with an iron death without worrying about consequences if they happened, of course, except if these consequences affect everything on a server basis, then everything will have to be redone and work will be wasted for absolutely everyone. Also, if someone accidentally managed to change the unique number of any user in the database, the new ID is re-assigned in every order that was with the old ID of the corresponding user in the database, thus preserving the integrity of the data of the orders and it prevents errors related to the customer who was previously placed on the relevant order, or the operator who made the last change to it and who will of course get paid at the end, so you don't have to worry unless You yourself did not submit wrong information, then the DBMS itself will return all changes and give you an error, as it should with errors in the integrity of the data, unless the server is made not to look at the errors at all and create an indiscriminate change of data, which depends on the server administrators, not the database, and which creates huge risks. Also, if orders are changed due to any change in user data, there will be a system message in the order change reason that the corresponding order has been changed due to a change in user data, so that operators can see what happened and take measures to fix it in time if it's a reset or see the user ID changes and find it quickly next time.**

### Users\_OnDelete

**Execution: after deleting user data from the user table.**

**Function:**

**This trigger creates a log of the user deletion and prompts system and server administrators, since database administrators cannot do this, to delete the deleted user's data from the corresponding role from the lists of roles and users in the database (not the table, but the lists separately with roles and with users in the database, you can also read about them in the Microsoft SQL Server documentation, they are two different things so REMEMBER!!!) and also resets all orders in which the corresponding user and was set as an operator or as a customer so that it can be shown that the order is invalid and needs to be assigned a new operator and/or customer and, accordingly, the operators to set new customers and take over their work to process the order because which process the order finally he/she gets paid and it's like that in every company and the triggers use the current information to change the data and otherwise they also put the old information in logs so that it can be read. In this case, in the delete logs, you can see the previous information and understand when this was done, and of course, understand what needs to be reset, what to delete from the lists of users and roles in the database, and so the burden is reduced but the responsibility remains and this won't work if you yourself provide the wrong information, then if the database server is working normally it will prevent you from making changes to keep the data integrity as it should. For this reason, the responsibility remains and is for everyone, as well as for the database administrators (we will talk about the roles later), as well as for the administrators of the system itself, of the server itself and of all those who operate the software to they also take care to be correct in giving and taking data from and to the database.**

### ProductBrands\_OnAdd

**Execution: After adding a brand to the product brand table in the database**

**Function:**

**This trigger is simply made and records in the log table when the corresponding brand is added and displays data about it, and as we know brands are just names in this information system and are used to group products by brand both in the database and and to show which brand is which product in reports, more on that later in the views section. Through this trigger, it is possible to understand when a brand was added, as well as the newly entered data related to the measure, such as a unique number and brand name. In this way, everyone can find out on which date which brand was added and see which brands, for example, need to be added and which ones are not, and thus decide how many brands to add and which products to add to them, which do not fit and so. So with these logs created by this trigger one can see what was added when and everything is recorded so tag entries like "This tag is worthless", "Ivan is dumb" or any other nonsense put together as a brand and abuses will not be allowed because everyone will check when they worked on the respective computer even if the username or IP address with which they logged in is not displayed, and who sees the brand in the list of brands because everything is reloaded in the software can remove it if it's an admin or notify if it sees such abuse and the wrongdoer is found out and punished for what he did, for example if there's a whole spam from brands that are bullshit, which is possible, believe me, I tested how it can be done and I know, to see at what time and knowing who worked when and to see, but it is also possible to fix the spam of nonsense in any table and you will see much later how this will be fixed no matter how long. In general, this trigger is made to create logs for the creation of brands, and it will be possible to see on what day what was done, and if something wrong was added, it will be removed immediately, whether it is seen in the database logs, or in the tables themselves and so everyone will know when what has been done since adding marks. It might be impractical by putting the number, but by numbers we can find everything best so yes.**

### ProductBrands\_OnUpdate

**Execution: After changing the brand data in the database**

**Function:**

**Creates and adds logs after the change of any brand already existing and shows the change date, old and new data so we can see in detail how a brand name has changed and the unique number if someone has found a way to change it and then it will be bad if he found it although it will change automatically because of the connections in the database, but anyway if someone has changed it will be known not only from the logs but also in the software because the information, although slowly, will reload anyway and it will be seen so again if someone has done something stupid to change to something fun but without for a given brand it will be understood and the necessary brands will be fixed and this will be possible even if there is spam on changing the names of many brands will still be seen and although it will be understood slowly, the brands will be fixed and whoever is responsible for this will take the consequences as follows, because such things are no joke. By keeping change logs it is possible to understand at any time when and how a mark was changed and to see what to do, as well as to understand how the corresponding mark is displayed on the products that are grouped under it and accordingly to fix it or change it again if there is something wrong with it and you know it too if you were an administrator of a database or an entire server and the logs are not even well done and require knowledge of English to read, they present enough information to know both the old and the new data and to understand what, where, how and why has been changed and if necessary to check and make the necessary changes to restore the information or take other measures if there is anything wrong or to confirm that everything is fine and normal operation can continue. Everything is understood so whoever tries to do bad things will be found out by the date of creation, a thorough review will be done and of course measures will be taken to restore everything to the way it was, and if false or invalid information is submitted and the server itself, when working correctly, will stop the execution of requests and return everything to the place, preserving the integrity of the data for us, but the responsibility lies with everyone who works, regardless of what role they hold in the company.**

### ProductBrands\_OnDelete

**Execution: After deleting a mark from the mark table in the database**

**Function:**

**After deleting any mark, this trigger creates logs showing the old/deleted mark and its details, making it possible to know which mark was deleted when, and if it was deleted by mistake or otherwise, and so it will be seen whether it should have been deleted, when it was deleted, how it was deleted and the data will be restored if necessary and of course those who deleted what they shouldn't have will take the consequences and the necessary will be done to to restore, and if many things have been deleted, the information system, even with logs at a rudimentary level, gives as much data as possible so that it can be restored if it should not have been deleted, and therefore everyone will be able to see at any time time what generally happened to the data and restore it if and when necessary so that the integrity of the data is maintained and everything is in order. It can be seen when a brand has been deleted to assess why it was deleted, whether it needs to be restored again or not, and generally what will happen to the products that were on it, whether they will be able to regroup into another brand after deletion, or they will remain ungrouped and unsearchable altogether. The responsibility is always there and everything will be found out sooner or later and everyone will know who did what in the end whether by reloading the data or keeping logs of everything so that everyone thinks of him when doing such operations and deleting the data. Well, some data being part of the links won't be able to be deleted, for example brands and other -1 entries in the database, but still the sensitivity of this and the importance of logging everything should not be underestimated , what is happening in the database, and to act on the moment according to everything that is happening to be able to recover if something goes wrong as quickly as possible regardless of how long it will take to set it up and thus ensure the operation and proper management of the data in the information system at any time. The responsibility belongs to everyone, regardless of the role in the information system and outside it, so be aware of what you rub and what you don't and work RESPONSIBLY, because you know in business what the consequences can be for any mistake, I won't explain, you know best ok i think.**

### ProductVendors\_OnAdd

**Implementation:**

**After adding a new vendor to the vendor table of the database**

**Function:**

**Every time a product supplier is added, a log is recorded with information about the new data and what date it was added to know when it happened, who did it and how exactly, and for this reason it is possible to understand if something happened whether it is correct or not and along with reloading the software and keeping all the logs, any operator, whether part of the system or a server administrator, what happened and take action if someone made a mistake, for example wrote something like Bai Hoy's Stupid Deliveries, it will be known who did it, when and why, and the consequences for him will be there because dealing with these things and in business in general anyway is serious and especially when it comes to selling drugs, using patient diagnoses, better to be careful what goes where, what providers go and keep track of prices on the providers site to be able to do what, where, how, why to give correct information, because even if logs are kept about what is going on and some work is automated, if the wrong data is given, the information will also be calculated wrongly. Fortunately in this database the suppliers are used as names and the price is determined manually and the products are grouped anyway by both brand and supplier names so the supplier names are for information and grouping and don't make much of a factor except to everything is grouped by them and which product is ungrouped can be seen among the other products and set the supplier, which is added to set the supplier from which it was taken and so on. In this way, the integrity of the data will be preserved and guaranteed to be correct and we will be able to find out which product was taken from which supplier and track its prices on the site separately from the information system and thus change its price in the information system. It is the responsibility of all operators to add and change suppliers and add products to them, so the smart way to do this is to be able to give and receive the right information and run our business well, as we should in principle. Everything is known when it is added in this system, so smart!**

### ProductVendors\_OnUpdate

**Execution: After changing the provider in the database provider list**

**Function:**

**Creates changelogs for each product vendor name so you can see when and how everything changed, assess what's right and what's wrong, and take action if something goes wrong to ensure quick response and when the changes are seen after reloading all the data in the software, both to find out who did something to one or more providers if any abuse happened and to quickly find out and restore the data to what is shown as old and as new data in the logs. Anyone who understands English can easily read this data and make the changes to restore everything that is needed in case of abuse and problem, and so you can always react quickly to any change and the information can be seen everywhere what happened to it and be evaluated and check everything. This is important in order to maintain the integrity of the entire system without any exception and to always know what, when, how and why is happening and to act accordingly in case something has happened successfully or there has been some abuse in these logs are to notify us and find out if a supplier, or rather their name has been changed correctly, or if someone has decided to mess with their name and made some kind of mess and see what happened in the end, which it will be seen and the criminal will get what they deserve so yes this system logs as much information as possible and will be able to expose you no matter what you do so be aware that whether you are a business owner, technician, engineer, server administrator or database administrator, you are responsible for the data, its protection and proper manipulation and this will help you a lot to identify everything that is going on and understand what is happening at any time no matter how simple and rudimentary it is done now. The more information there is, the more it shouldn't be dismissed and neglected because it shows both what the data was before and now and you'll be able to understand what the problem is and fix it in time and at scale to keep your company going to develop and make good profits, and you to give to yourself and others from your craft and livelihood, that depends on you and is carried on your back, so remember that always.**

### ProductVendors\_OnDelete

**Execution: After removing a product vendor from the database table**

**Function:**

**A log is created of what is removed and when to judge whether it was removed well or not. According to the links, it is automatically set to -1 where it is removed in the products and the products are removed from the supplier groups and the suppliers are just names, but when something is removed and it is not properly removed it can be seen and restored and the person responsible for it to find and receive the consequences imposed by the company you work for and its sanctions policy. Everything is recorded, as much information as possible is recorded and made visible to the server and information system operators so that everything is in order and when something happens it can be reacted quickly both when reloading the data and when viewing in the logs to see if something was deleted properly or not and to judge what to do as well as to know what is happening whenever it is running at any given time. In this way, you can always stay up-to-date on all changes and everyone knows what happened and once again, react adequately to what they can do about what happened in the database and in the information system and to do it like people if he knows what to do, and if not, someone else will be found and do it for him, but the responsibility is on everyone in the company, since the company is like a whole family, since everyone fights for for himself as well as for others and regardless of the hierarchy everyone has a role that he fulfills and for which he gets what he deserves and as much as he deserves, or at least that was the case before and it is not known now whether it is still the case, but everyone, from an ordinary worker to administrator and engineer work together and both give and receive and this cannot be denied, and by receiving timely information about all changes, all problems can be solved in time and everything can be recorded no matter how rudimentary and how not and because of this cause these logs are important and it's best to review them whenever possible, especially when changing and/or deleting to recover data in case of loss and/or massive change in time before everything else goes to waste and all the sacrifice you gave for success to be in vain, you to be fired, and the company to collapse to its foundations. Logs and information are held accountable, so BE RESPONSIBLE!!**

### PaymentMethods\_OnAdd

**Execution: After retrieving payment method in database system table**

**Function:**

**After each addition of a payment method, keep logs of what you have added so that you know later whether it was worth it or not, and to be informed when you have added not only you, but also your colleagues, so that to see if something was created whether it was correct or not, and to fix it if it was released incorrectly or similar. Everything is logged in the database and you can always see as much of the data that has been added and if someone has spammed invalid payment methods with crap you will know what date it was done and who did it done will be able to suffer the consequences depending on your company's sanctions policy, so it's best to be correct because if the added data is recorded in audit logs there is no way to lie to ourselves or others about what we are doing except, of course, if we are not system administrators and decide to delete absolutely everything, and as is known, this can destroy everything we have created up to that point, and because of that, it's best not to do what we don't want to do, but to we work as one together with our colleagues in the work family which is called a company. It is the responsibility of all operators whether they are workers, technicians, engineers, computer specialists, database administrators, administrators in this information system, server administrators and/or system administrators, everything is important and even the payment methods themselves are reserved only as names, whose numbers are associated with the deliveries of the orders we make, it is important that it is according to the ways we provide our company, especially if we will want our customers to pay for the goods through them, whether they paid in advance, on the spot or after the delivery of the product we have sold to them. It's the responsibility of everyone in the company as always, so be careful what payment methods you provide and whether your company has the ability to pay through these methods, because it's easy to fit in, but integrate information systems with the payment infrastructure, for example through PayPal , credit cards, POS terminals, contactless or other payments, it's hard and if you know how to do it that's fine, otherwise you'll need a lot more information to research unless someone else in your company knows about it and can do it .**

### PaymentMethods\_OnUpdate

**Implementation: After changing a payment method in the table of the information system or more precisely in the database of the information system**

**Function:**

**After changing the name of each payment method, a log is created in the database with the old and new data to show the change and if something is correct or incorrect to be seen by absolutely all operators. Unlike other things that can cause problems only inside your company, payment methods are visible to customers, and even if a customer saw a brand with the wrong name, it is not fatal, but if they see a payment method with the wrong name, they will goes wrong and the very reputation of your company will go unless you step in quickly no matter what position you are in and fix and restore the data that is wrong and of course sanction whoever did this mess depending on what has done and how much damage it has done to the data in the end. Whatever happens, the logs are made visible to everyone, and the software itself will reload the data no matter how slow or fast and show you up-to-date data, giving you information and if you look at the logs you can see what happened on at any time and in time to take all measures as these diaries are made for this, not only to be seen as decoration and not to be able to understand what is where even if rudimentarily presented, but who wants to develop this information system more will can improve the messages and additional information in the logs and so you will understand everything, but be careful with the names of the payment methods that you can get salty if you get their names wrong and then wonder where it happened, what and you can't you can even have the knowledge of how to fix everything else outside of your company. Knowledge is necessary, but you also need the necessary information to know what to fix if necessary if there is anything to fix so you know, and this information will also be shown to customers when they place orders so you know not to be irresponsible whether you are simple operators, administrators, engineers or whatever you are in the company, it can affect the reputation of your company and affect not only you but also your colleagues because you are all in the pile, not just one or the other , and everyone and in the company everyone works as one, in principle, even if there is competition, there is something to complement each other, so you know.**

### PaymentMethods\_OnDelete

**Execution: After deleting a payment method from the table of payment methods**

**Function:**

**Creates logs for all deleted payment methods that you have entered into the system so that you can know when they are deleted and the information related to them and you can react and do what you need to do if something goes wrong regardless of what type of operator you are in the information room system or in your company as a whole. When something has been deleted by mistake, you will use the rudimentary and simple logs of information to restore it, whether they are in English (and in my case they are in English), in Bulgarian, or in whatever language the database of this information system is. When you know the information provided even if the names of the payment methods are made for information only and are selected and added to the deliveries for the orders, if there is something that is deleted incorrectly, these logs will show you when it was deleted and the details of it to you can restore it and return it again if necessary, and if not, you will know why it was deleted and you will have up-to-date information about payment methods both in the database and in the software that provides this information system, and you will be able to to provide reliable information about yourself and others in your company, and about the customers of your company or company or whatever you call it, because in some companies there is a strict hierarchy, in others there is a business partnership and everyone is equal and how they work individually for themselves from a distance or on site, so they give of themselves to the company and get what they deserve, and when everyone is correct with their calculations and changes they even manage to have incorrect ways of achieving more, but they are for short and may do more harm than good in the long run, but whether you are correct as always is your responsibility and for that reason YOU are the judge of how you operate and take responsibility for the consequences that occur when you do different things and if you have made a mistake it will fall on your head and if you know how to fix it you will be able to cope and move forward with a fast march in your work, craft and business as I am currently writing this documentation, so BE RESPONSIBLE!!!**

### DeliveryServices\_OnAdd

**Implementation: After adding a delivery service in the delivery services table in the information system database**

**Function:**

**This trigger is as simple as the previous triggers and adds delivery service add logs to the database and shows accurate information in the raw database logs when and what information was added and why it was added is up to you and so on. When something is added correctly and with correct information fine, but when something is not added you will be able to check on the site of the relevant delivery service and change this according to changes on the site and keep the information up to date for both yourself and your colleagues in the company as well as for your company's customers. About the company name, it will become a matter later and you will be able to change it and give up-to-date information in the deliveries as well, and the information will change somewhat automatically, taking some of the load off your back, and this will be understood by -late and for this reason the responsibility is great and can affect a huge part of your company when your actions are good or bad and especially when the information is updated in the other parts of the information system, so be CAREFUL with what you add and change as delivery service so that you don't let down not only yourself but also others around you when you work. When adding a delivery service with a name and price look to check what is on the delivery service site and add the delivery service against the information there so you don't panic as whatever calculations are in the database and whatever logs are lead in the diary table, if the information provided is wrong and the information received will be wrong and this is known by everyone, even the youngest children, so 2 + 2 is not 5 :D . OK, let's be serious when you add supply information to the database, because it is not only visible to you in your company, but also to the customers who use the services and buy medicines from you, so think about it and be smart about what you do. you do in adding shipping services and setting them in the deliveries to the orders you place and the smart mind we were given to begin with is NOT JUST TO HAVE!!!**

### DeliveryServices\_OnUpdate

**Execution: After changing information about delivery services in the database**

**Function:**

**Not only does it create logs of the change of delivery service information, which is recorded in the database and shown to all operators regardless of their role in the information system or in the company hierarchy. This trigger automatically sets the new full shipping cost to the orders that use the corresponding shipping service, so the burden of your work for this is taken by the information system, and it is your responsibility to change the information correctly and if something goes wrong to fix it in time as you look at the logs and based on your expertise to see what happened and how to fix it, and luckily with this trigger you won't have to do what's wrong in each table one by one, and you can if you set the correct price of the service delivery and this service delivery is set in any order delivery, the information will be automatically set there and the system will put its reason for changing the delivery so that you can notify and know what happened so that you don't you then worry about who did what and whether it was right or wrong. This information system is made to make administration easier for you and the logic of this trigger is made to be able to give you as much coarse information as possible about data changes and when they were made, and to change the data in the tables and maintain the accuracy of the information instead of giving you unnecessary work and unnecessary worries when running your company or just working in it and best to check on the site of the delivery service before changing because as we know when you give right information you get right results from the information system and vice versa , so even with the facilitation of the system, the accounts you make are yours as well as the responsibility and there is no one else to take it but you when you do your actions. Intelligence and responsibility even with the help of facilitating the business administration information system itself is yours and you can always see the fruits of your labor when you give right or wrong information and your colleagues and customers of the company will also see and depending on what you do the reputation your company will rise or fall so think carefully about what you are doing and take responsibility, it makes you free in general!**

### DeliveryServices\_OnDelete

**Execution: After deleting delivery service information from the delivery service table in the database.**

**Function:**

**This trigger had to do more than just deliver deletion logs to delivery services and if something is deleted correctly or not you will be able to find out in time and fix the problem by adding the delivery service again and manually assigning it to the deliveries that were affected by the deletion and thus resolve the issue. This information is visible to all operators, so whatever you do will be understood regardless of how crude and unreadable and in what language the information is presented. Due to the relationship between delivery services and deliveries, however, you will need to manually change the delivery after deleting the relevant delivery service and assign a different delivery service, or else put -1 for the delivery service number, which will set the full price as the order price until you put a new valid delivery service number although the trigger is made to put this automatically but when I tested I saw that the change in the foreign key is set before the trigger is executed and even the change logic to deliveries and notification by setting of a reason to add/change a delivery to have it, it doesn't work because this trigger works after deleting and changing the links between these two tables so it remains for you to even automatically set the delivery service number to the corresponding delivery on -1 to be able to change it as needed, the responsibility for the information is yours and even if the information system helps you as much as it can and as much as is put into the logic of its triggers, the information you give is IMPORTANT to its calculations and to the reputation of both you and your company and the people who work in it, so even if there is an automated system that gives logs with as much information as possible about adding, changing or deleting data, the human factor cannot comes out so take care because what you give is what you get in the end and that is why it is important to know what you are doing as an operator in the company no matter what position, whether database administrator, database administrator, system administrator, data scientist, data engineer or worker, when you know what to do the information obtained from the software and from the logs will be invaluable and help you solve the problem or tell it to those who have the right to fix it!**

### Products\_OnAdd

**Execution: After adding a new product to the product table of the information system database.**

**Function:**

**This trigger creates logs of when a product was added and the FROM TO information about it so that when you add a product or any other product you will always be able to see it in the information system software as well as in the raw logs that are in the database for every change you make, and if something is added incorrectly you will be able to compare it with the added product data and change it in time, remember what is where on the product packaging, as well as monitor the prices of the products on the suppliers' sites, with whom you have made a deal so that you can provide a price for your products sensibly and responsibly, since the price of the products will be known both by you and your colleagues in the company, and by your customers, and if correct information each of you will be able to tell all the information about a product to the customers and be flawless in your calculations and the calculations that the information system will help you with so that you can focus on that part of the job where you can and because this job is always difficult, the combination both the human factor to perform one part of the work and the machine factor to perform another part of the work are important, especially for the products and services you provide and anything that can be calculated for you and those who benefit from your company's services. I may be speaking personally and arrogantly, but this is the case everywhere and you will know it much more than I do if you have seen in real life how things happen and what you can do and what you can't, so will you agree with me, or is not another question, but in general the responsibility for the submitted and calculated information is on the one who uses and administers the information system and his company and on those who work with him/her not only individually but also in general and for this reason the work is harsh, but you will be harsher with surgical precision and your powers, and with the help of mine or other business administration information systems, you will be able to do a lot depending on what you do, so take care about the products and be RESPONSIBLE!!**

### Products\_OnUpdate

**Execution: After changing the data of a product in the product table of the database and the information system!**

**Function:**

**Not only does this trigger make product change logs with as much information as possible about the data change in the relevant product information, it also automatically changes the price of each order for it so that it can be calculated so if you have overcharged the base price price in the order, the price of the order will be recalculated using the base price of the product so that you can redo it with a new markup against changes in the base price of the product and thus in symbiosis between your efforts and responsibly provided product information and calculations for the cost of the order, you will succeed with ease, but still a lot of responsibility to do what you need to be able to provide both the correct information when asked by customers and when everything related to the order being created, validated and calculated does to any product and so the information will always be correct when it is provided truthfully in the first place, so be careful when you put that even the examples I have given when I have tested this whole database and program are nonsense and the information system is far of any kind of ideality (I didn't want it to be perfect myself, I didn't think it was right, I wanted it to work and give you a correct calculation of the data instead of it being "perfect" but not doing anything like it had when I had another information system, in which I had learned from my mistakes, and not only from them!) when you use it and provide correct information, the system will process it and if you change it, such as the base price of the product in the base product table data, it will be changed by the system for you and a reason will be left in the change reason of the relevant order, notifying you of the change as always, but when you provide correct information, both you and your company will be in good standing, and the system will calculate correctly the results of your affairs and with wrong information you will have to fire because with wrong calculations you pay out of pocket and therefore your company will go bankrupt whether you run it on site or remotely so TAKE ACCOUNT AND BE RESPONSIBLE! !!!**

### Products\_OnDelete

**Execution: After deleting a product and its data from the product table in the database**

**Function:**

**This trigger, as well as the delivery services wipe trigger, has more complex logic than just creating logs for deleted product-related information, which of course, as crude as it is, shows everything that has been deleted for everyone from the company who are operators and/or workers of any kind providing data on what was done and when so that if you see an irregularity you can fix it yourself and/or report and find out whose responsibility those who have made this mess, but there is also logic that unfortunately doesn't work because of the relationship between the product table and the orders, and as I had tested, the table relationships change after data is changed and/or deleted before the trigger executes, but here is the corresponding logic: when a product is deleted, the orders that have the corresponding product number in the database are taken and reset and this can be done automatically by the product trigger, or if it is not done due to the product being deleted and that this product no longer exists in the database you will have to correct this yourself but also put on the product with the number -1 it will change when you change so don't worry, the load is also taken by the information system, not only by you so the work it will be easier for you as much as possible and you will be able to work calmly when you make changes to the orders and you can put a new product and use them again, or delete them, on the relevant orders that are invalid without a product, for this you decide, but one way or another the information will be recorded and you will be able to refer to it when necessary and not only you, but also your colleagues at work and so on. It is your responsibility, even if you have a business administration information system, so that what you do is written on your back, and even if it is difficult for those of you who are just starting out in any business, in this case, a pharmaceutical business, because this system is made for it, like the weight of the Earth on the back of the titan Atlas of Greek mythology, You will succeed with or without a special information system and you will improve and take on more and more responsibility and you will do it with SWING AND RESPONSIBILITY! !!**

### ProductImages\_OnAdd

**Execution: After adding an image of a product to the image table in the database**

**Function:**

**Adds image upload logs showing as much data as possible for you to know when and what image was uploaded and for which product so you can understand what's going on, when it was added, how it was added and if you need to change it, and the images are uploaded, encoded and decoded into binary PNG format and prepare huge RAID drives to represent the binary information in the database because you won't need a web server to put the images on and then when it gets hacked the images will are downloaded and also the product information and so become problems for everyone and yes because of this the product images are displayed in binary format to be encoded and decoded from the database and this makes the security better than when it is just as a file, which can be downloaded and uploaded to a web server and the higher the resolution in the images, the more data and therefore the more space needed to store the information in the database and the longer it will take to load from it. Also, if you integrate the information system with a site, whether it is written in PHP, JQuery, ASP. Net, made with Google Sites, Joomla, WordPress or any other content management system, they will appear alongside the product information from the database and customers will see them, but luckily if an image is placed on the wrong a product can be edited and repaired by ordinary operators of the information system, so there is no need to report, and the rights of all users of the information system will be described in the section Roles of the information system, and for this reason you will know what you can do and what NO and so be responsible and do your job PROPERLY!!!! Images can be added and information about them will be added and you will be able to see it, and about the images and how they will be uploaded depends on the internet speed you are on, the resolution and format of the image and the size of the file itself and because of that cause be responsible for what you put, where you put it and HOW YOU PUT IT!!**

### ProductImages\_OnUpdate

**Execution: After changing the product image in the database table of the information system.**

**Function:**

**It creates logs for every changed image in the database and provides details about it so everyone can see which image was changed and how and so you can see what was changed and what wasn't by all operators at any time and if you did something by mistake or someone else who has done this and both you and he/she can do it so you can fix the problem and move on with the job. Images are in binary format, encoded and decoded as binary data and can be replaced and placed on any product to display with it the way you have integrated your information system into the site so when you want to integrate this information system into a site and display images correctly along with product information to customers and be able to provide a visual of what you offer looks like, and for pharmaceuticals this is important for customers to know what to buy, so be careful of which product you put the different images, and how much you will put and what resolution you will decide depending on what kind of internet you have to upload them to the database and how much disk space you have on your server, and diary will be your eternal companion no matter how many how crudely they show the information in them to show you every change what was changed and when it was created so you can know what happened and no matter what position you are in if you are at a computer to fix what happened because the responsibility it is not only up to those above you but also up to you so that you know and judge when you upload images, in what format, at what resolution and thus you will know what to do and when to do it and you will be able to upload as many images as you can in the table, put them on the right products and therefore show your company's customers what it is that you are showing instead of just putting its description when you show creativity and visually present the product your customers have a better chance of understanding it and buying so you'll know what to do at all times!**

### ProductImages\_OnDelete

**Execution: After deleting a product image from the product image table in the database**

**Function:**

**When a product image is not needed or is not inserted or corrupted and had to be deleted or had to due to overflowing the disk where the database itself is written to this image this trigger will save it in the logs so you can see it and to assess if it was worth it and if you need to re-submit the image so that you still have enough images to be able to show customers what you are selling visually as a product and to be in good standing with full transparency both on inquiry and display of images, and since the images will be in binary format in the database, if they are deleted from there they will not be anywhere else unless you have uploaded them separately to a web server, although for the information system I am doing, this is not necessary and again you will be able to decide what image to put in place of the deleted ones and/or whether to re-put the deleted product images so they can be displayed on the site, just know how to get your site to be able to decode images from binary format and encodes back to binary format if necessary, regardless of what technology you use on your site to integrate it with this information system. Logs will always be a companion for you to see the changes and react and fix them and/or report them to be changed as they should be. When you look at what's on the information system software, and when you see the changelogs, and if you know what to do, you'll immediately be able to fix it or report it so that other people can fix it, and therefore the responsibility and the ability to fix it is yours, therefore, even if the information system helps you, the human factor is still important and should not be underestimated, because if you make a mistake and do not correct it in time, the consequences for you can be huge, since you work, others work, the company is built on your shoulders and those with whom you work, just as in Greek mythology the Earth was believed to rest on the shoulders of Atlas, and we now know that this was not the case, but it can be used for the effort anyway us to work and run our businesses and take responsibility even as we write, expand and maintain business information systems or just run our own businesses and grow!!! The responsibility and power is yours whether with my information system, another information system or your own efforts so BE TITANS!!!!**

### ProductOrders\_OnAdd

**Execution: After adding an order to the order table in the database**

**Feature: When adding an order or rather AFTER IT IS ADDED, a log is created with the information about the order created and when it was added so that it can give you as much information as possible and tell you when the order was placed and find out who a user is a customer and which user as an operator made it last, so by comparing the numbers in the database, you will find out who did what, and only up-to-date information is used to make the calculations in the business logic of the orders, so the system will help you with this as well as will provide you with logs and up-to-date information on time even if there is a delay so that you can see, know and confirm the added order and navigate and process it on time before everyone else because whoever processed it last gets the salary and that's it everywhere, and with logs and comparisons between logs and tables, you will be able to navigate and see what is right and what is wrong and see what is happening at any time while using the information system, and the software itself will show you which users can log in to operators and who - to customers so that you don't have to check yourself when you enter orders and waste your time unnecessarily, this IS can take your soul, but it will also help you and facilitate responsible work without taking responsibility from your hands through automation and the way data is presented for picking orders even if it is simple and crude in design and its logs are poor. Whoever can read the logs will be able to judge whether something is right or not and thus be able to see which information is correct, which is wrong, which order requires attention and further processing and which is completed and can quickly and easily do everything, which he has to do. This is the purpose of this information system, to provide an easy way to process information and facilitate the otherwise difficult and responsible work of your business, and especially if you have too many customers there will be no need to change everything in several tables from the database at the same time and you will have less worries and focus on THAT PART OF THE BUSINESS THAT NEEDS!!!**

### ProductOrders\_OnUpdate

**Execution: After changing an order in the database of the information system**

**Function: THIS TRIGGER PERFORMS ONE OF THE MOST IMPORTANT FUNCTIONS IN THE INFORMATION SYSTEM AND WITHOUT IT THE EXISTENCE OF THIS SYSTEM AND THE DATABASE IS COMPLETELY SENSELESS!!!!!! Not only does this trigger log every order change in the database, but it also handles and does all the calculations on user accounts and product quantities so you don't have to play around and create extra headaches while running and running your business! ! Not only will it show you how it has changed, but it will also do the necessary calculations depending on the state of the order and this is a reminder again to be careful what state you can put as more about order states can be found in the ProductOrders section of tables. To add to it, however, orders can go from prepaid, paid on delivery and directly paid to completed, refused or returned or straight to paid, completed or returned as well as from completed to paid or returned and once this is done all calculations for the user-customer account, user-operator and the amount of products in the warehouse will be done automatically and you will be shown all the changes through the logs, as well as the system will show you by putting its own reason explaining what data processing is completed so that both your work can be partially or completely facilitated in this respect at least, and show you the full picture of what has happened so that you can see if something is settled or not, and know, any change of orders will be reflected everywhere in many tables as the system is automated and any change will be reflected if the product number, user-customer number and user-operator number are valid and the amount in the customer's account and the product quantity is as much as/ or more than necessary, and if they are not valid or the necessary things are not there, it will show you an error that they are not, so be RESPONSIBLE AND CAREFUL when processing the ORDERS so that you do not make mistakes neither as administrators nor as database workers/operators and remember, when you process an order PUT YOURSELF AS OPERATOR BECAUSE THE TRIGGER WORKS WITH CURRENT INFORMATION AND ONLY THE LAST OPERATOR WHO PROCESSED THE ORDER IS CALCULATED AND ADDS THE SALARY TO THE ACCOUNT BECAUSE BE RESPONSIBLE!!!**

### ProductOrders\_OnDelete

**Execution: After deleting an order from the order table in the information system database**

**Function:**

**It shows which product orders have been deleted and when exactly and what data was deleted so that it can be restored if necessary and since normally orders should not be deleted although it is not prohibited in the information system unless it is necessary, in the logs will show what has been deleted and what has not, and action will be taken if there is a data breach, sabotage and/or deletion of information for other nefarious purposes. Logs are available to all operators so you can fix the problem of missing data and/or report it to those who have the right to edit the orders, so be careful as especially for the orders and the automation of their processing while they still exist in the database data is of particular importance because everything in it directly affects your company, and if you make incorrect orders, many people can suffer, including you! Only delete orders when you have to and if you turn a deaf ear or delete orders indiscriminately it will show in the logs and you will be penalized depending on where you work or if you are a business boss your business will suffer badly and you will go bankrupt and fired and yourself, and others, and that's why these order logs are useful to show you what has been added, changed and/or deleted so that you can react immediately to changes and if something has gone wrong, fix it! Without logs in the database you wouldn't be able to see what happened to the orders each day and you wouldn't be sure when, how and where the orders changed and you wouldn't have the ability to fix them and/or if you had it would take you more than the right amount of time and you would have to neglect every other part of your job and sink with your company and your colleagues and thus get fired, and if you have no other trade that can be VERY VERY DANGEROUS!!! When working with orders in this information system be careful with the data and what data you give because when you give wrong information all the automated order calculations will give wrong results and that is very BAD!!!**

### OrderDeliveries\_OnAdd

**This trigger creates logs of which delivery was added, for which order and however crudely the logs are displayed they show the information about the delivery added and will help you identify both problems that may arise when you add, change and/or delete deliveries so in the system because both in the orders and the calculation of everything in the deliveries is automatic as well as in the orders in order to help in the work by the system and symbiosis between the human and machine factor and therefore be careful, but both the operators and admins have the right to manipulate the supplies in the system so if you made a mistake you can solve it if you know how so you won't have to worry if you know how and if not you can show you and/or show if you don't know this way too a way to understand and actually do your job well without making such mistakes, especially if you work in the field and like me you can't focus without some factors that if you are on your own help you focus and actually do your job well whether you achieve little and/or much. When you are focused you can do your job better no matter what conditions you work in the field or from home, the important thing when you work is to do it FOCUSED AND WITH PASSION IN YOUR CRAFT with or without the help of this information system, and the delivery of the orders are closely related to them and when the supplies are changed the orders are automatically changed so do your math and figure out how you add, change and delete order supplies as well as orders from the database because the hope of succeeding rests on you and how own your business whether with automated software solutions like mine or similar, or completely by hand with lots of blood, sweat and drive to win! This I can say, and why I say it you will see when I describe the next trigger, and it is one of the most important in the database, because it covers and processes much more than the data in the tables and calls the other triggers by changing its own and other tables, so now you will see, you will see what this self-made software daemon is capable of, just read till the end and I will also explain and show you!!**

### OrderDeliveries\_OnUpdate

**Execution: After changing the delivery of an order in the database of the information system**

**Function:**

**THIS TRIGGER IS ONE OF THE MOST IMPORTANT IN THE DATABASE AND WITHOUT IT, I WOULD HAVE BETTER NOT DONE THIS DATABASE AND THE INFORMATION SYSTEM AS A WHOLE, THAT MY WORK FOR TWO MONTHS AND SEVERAL WEEKS WOULD BE FOR USELESS, AS WELL AS YOUR TIME ME YES READ THIS DOCUMENT I WILL BE DAMNED WHEN I FINISH IT!!! READ CAREFULLY TO FIND OUT! Thus, this trigger about the change of deliveries validates whether there is a valid order for the relevant delivery, whether there is a valid service for the delivery and whether there is a valid payment method for the delivery and whether the account of the user - customer is sufficient for the payment and if so, when changing the delivery states calculate the corresponding account of the customer - a user who takes from the data of the delivery to which it is assigned without exception and in a way that it is calculated against the policies of the delivery services that I have studied in real life so that you can focus on making orders and deliveries in real life while getting accurate information from the information system itself! This shows the symbiosis between man and the information system and how technology can help us in measure if of course we use it properly, because if we give wrong information to the software and the database, we will get wrong information in turn and that's why it's all there logic so that the error factor can be reduced as much as possible and orders and deliveries especially for pharmacies are important to become with surgical precision as we are playing with people's lives and by calculating everything from the system instead of playing on hand to calculate each information separately in each table you will have convenience, and like every trigger so far, the supply change logs will always be created and available with valid information and you will be able to do what is necessary in case of information error and in the very causes of the deliveries and orders to which they refer will have messages from the system that will help you with a successful change, and this information system is especially emphasized on this!!!**

### OrderDeliveries\_OnDelete

**Execution: After deleting a delivery from the delivery table in the information system database**

**Function:**

**It creates logs of all deleted order deliveries and displays as much information as possible for you to read and see if everything is correct or not and to keep up to date with what is happening in the processing of order and delivery data and this is important to learn when and where everything was done and to restore the data if it was deleted wrongly and so pay attention to the logs, even if they are not presented well they show useful information and for this reason it is important to know, especially for the supplies and orders that are made because they are one of the most important things in this information system and they are emphasized when working with it, as well as with the products and users in it. When deliveries get messed up and orders get messed up and everything goes bad so always keep an eye on both the system program and the database logs so you can always know what's going on and know what to do if something bad happens and take action if you know what's going on, or report abuse if something has happened and you don't know and/or can't fix it due to lack of rights. This way you'll always know what to do and how to fix things, but if you're operators and/or administrators you'll be able to do what you need to do to recover order information and delivery when needed and can be work right if there are mistakes and to fix the problems in your business accordingly so that it does not sink, it is your responsibility no matter how this system helps you through all its triggers, including this one. Information should not be lost and that is why these logs are included even if they are written in a crude way, you will be able to find your way when you know how and when you look at the information where it was, so this is an advantage for you and this trigger as well as the rest of you gives it so you know and remember before you forget! THE RESPONSIBILITY FOR EVERYTHING YOU DO WITH THIS INFORMATION SYSTEM IS YOURS AND EVERYONE WHO WORKS WITH YOU SO YOU WORK AS ONE BIG FAMILY AND DRIVE TO SUCCESS BY PROVIDING TRUE INFORMATION FOR THE TRIGGER TO PROCESS AND TO RETURN TRUE INFORMATION!!!**

### XPDB\_OnLogon

**Implementation: Every time you try to login and connect to the database, check it well and turn it on as it is very important for security and you will see why, whether I have it turned on for myself or not**

**Function:**

**It provides solid security by only allowing users recorded in the database user table and gives an error when you give invalid data and gives an important layer of protection against unauthorized access by allowing only those recorded in the database user list and I mean the user table, because without server login data there is no way to even get to this trigger anyway. The login part is not complete as it doesn't disallow words that can cause system breaches like SQL Injection hacks, but it can do with phrases that are disallowed and even if a login is possible, this trigger will throw an error and it will prevent any access and this trigger has several things that make errors and they are: When even there is a logged in user if it is not in the users table it will reject the login with an error to prevent any unauthorized access unless someone put their sysadmin credentials in the users table before firing this trigger so you know this trigger is the wall between proper and unauthorized access and the second way is not complete but this is what it looks like when it is created ban phrases table and integrates and when part of the username or all of the username is in the relevant ban phrases table access will be denied and login will be denied, but this will be completed later if I decide to further developed this information system. In version 1.0.0 this trigger works like this but there are even more things that can be put in and this trigger as I have done it provides good enough protection against unauthorized access so it is good for now and in the software there are also programmed protections against unauthorized access and this will be covered later in the entire documentation.**

So, as you have seen, triggers show half of all the logic of the information system and do an EXTREMELY IMPORTANT PART OF THE WORK, and without them this system would not be what it is now and would not provide everything it does now! Let's continue, however, with the following so that you can see the full picture in no time!

## LOOKS:

In this database, instead of 10 thousand ways to see everything through stored procedures, there are 11-12 simple views that show enough information to generate reports that are confidential in the company you work for, and for invoices to give to customers so that you can be correct in your company and they are important and they could give a lot more work but I couldn't do them well and they made the system unstable and they were related to very useful statistics and it's a shame that I couldn't put them in in this version of the information system to work but for now things even cropped are at least displayed correctly and you if you are going to develop you will be able to make a better way of displaying views and statistics than I can and they are important because through them and other factors can show all the data made for a given report and almost all tables except 2 have reports to them so you will see for yourself and even with a brief description you will know what refers to what so rest assured it is not very, very little left but the information will be useful anyway and can help you with generating reports and how it goes so be careful when and where you report using these views and who you show them to as most of the views are for strictly confidential information inside the company AND MUST NOT BE SHOWN ABSOLUTELY ANYWHERE!!!! By describing the views, you'll know which are public and which are inside company information, and you'll know what to keep private and what to show clients when they ask, because the responsibility for viewing views is important and only yours SO MAKE YOUR OWN CONCLUSIONS AFTER READING BELOW AND YOU WILL UNDERSTAND WHAT EVERYWHERE IS ABOUT!!! The views are not made for beauty, but to show accurate and reliable information by collecting several tables at once so that they can provide the information connected and well enough for you and your colleagues to present it quickly and reliably and to navigate , and the customers of the company what is where and how is it when asked and I say again, these views could really give you a lot of useful statistics, but I was not able to make them like the people, so yes, they remained. Let's begin!

### **ClientView**

This is the view that only shows the data for users who are customers, that is, with role 2 (see more in the Tables section)

**Columns:ID – the user number in the database table**

**UserName – the username that this client will log into the database with if allowed to log in**

**UserPassword – the user password that this client will use to log in to the database if allowed to log in**

**UserDisplayName – the name by which this client will be visible to other users, whether operators or clients**

**UserBirthDate – the customer's date of birth**

**UserPhone – the phone for contacts, with which other operators will search for the customer if he needs to be searched**

**UserEmail – the customer's email address that operators can contact for inquiries and/or feedback**

**UserAddress – the customer's address to which the ordered products will be sent if they cannot be picked up directly**

**UserProfilePic – the profile picture of the customer that will be visible to operators if they have the right to edit the user data**

**UserBalance – the account that customers have entered to place orders in the information system**

**UserDiagnose – the customer's diagnosis according to which the drugs should be prescribed**

**UserDateOfRegister – the date these customers were registered**

**UserRole - the role of the user, in this case a client, in the database**

In this view you can see detailed data about each customer and create reports about it inside the company and this data is made for strictly confidential reports in the company and should not be shown absolutely anywhere because it will violate the rights of users, who use the computer system and may sue you if this happens. Where everything is strictly confidential and you will know and for that reason do not show anything from this view to outsiders, but NOTHING!!!

### EmployeeView

This is the view that shows only the operator users and its description is the same as that of the customer view, but there are certain differences, and its information will be enough to see all the data about the operator whether he is an administrator or a regular database worker

**COLUMNS:**

**ID – the number of the user in the database table**

**UserName – the user name with which this operator will log in to the database if allowed to log in**

**UserPassword – the user password that this operator will use to log in to the database if allowed to log in**

**UserDisplayName – the name by which this operator will be visible to other users, whether operators or customers**

**UserBirthDate – the operator's date of birth**

**UserPhone – the contact phone with which other customers will search for the operator if they need to be searched**

**UserEmail – the operator's email address that customers can contact for inquiries and/or feedback**

**UserAddress – the address of the operator, it is not known what it will be used for, usually this field is for customer addresses**

**UserProfilePic – the profile picture of the operator that will be visible to other operators if they have the right to edit user data**

**UserBalance - the account that shows the salary of the operators**

**UserDiagnose - this field is usually for customers, but also if operators need drugs and pay out of pocket and sign in with another registration as customers, otherwise it can't**

**UserDateOfRegister – the date these operators were registered**

**UserRole - the role of the user, in this case an administrator or operator, in the database**

This view shows detailed data about the user-operators in the database and this information, as well as the customer information, is STRICTLY CONFIDENTIAL AND SHOULD NOT BE SHOWN ANYWHERE EXCEPT WITHIN THE COMPANY!!! If someone shows this outside there are consequences to bear and they are a court of violation of human rights and there will be huge consequences.

### ExtendedOrderDeliveriesView

This view shows all the data about the deliveries, including the data about the orders to them, the information of which will show everything about the deliveries and orders from to and with which you will be able to make both an invoice for the delivery and the order, as well as confidential reports for the company. you are required to put the correct report where it belongs!

**COLUMNS:**

**ID – the delivery number in the database**

**ProductName – the name of the ordered product**

**BrandName – the brand name of the ordered product**

**VendorName – the name of the supplier of the ordered product**

**ProductDescription – the description of the ordered product**

**ProductExpiryDate – the expiration date of the ordered product**

**DesiredQuantity – the desired quantity of the ordered product**

**OrderPrice – the product order price**

**ClientName – the name of the client who placed the order**

**ClientPhone – the phone number of the client who placed the order**

**ClientEmail – the email of the customer who placed the order**

**ClientAddress – the address of the client who placed the order**

**EmployeeName – the name of the operator who last processed the order**

**ServiceName – the name of the service the product will run on**

**DeliveryPrice – the price of product delivery**

**MethodName – the order payment and delivery method**

**CargoID – the bill of lading number according to the bill of lading document provided by the service**

**TotalPrice – the total price the customer will pay in the end**

**DateAdded – date the delivery was added**

**DateModified – date of delivery modification**

**DeliveryStatus – The delivery status number**

**DeliveryReason – the reason for adding and/or changing the delivery**

As you can see there is enough information to present both invoice and confidential information in a report and the information system reports are separate reports created for full information and invoice report to submit to clients so SMART!!

### **ExtendedProductOrdersView**

This view shows everything about orders from to, but it doesn't show as much as the delivery view does, but it's for generating invoices and generating reports with confidential information anyway, so be careful what you give

**COLUMNS:**

**ID – the delivery number in the database**

**ProductName – the name of the ordered product**

**BrandName – the brand name of the ordered product**

**VendorName – the name of the supplier of the ordered product**

**ProductDescription – the description of the ordered product**

**ProductExpiryDate – the expiration date of the ordered product**

**DesiredQuantity – the desired quantity of the ordered product**

**OrderPrice – the product order price**

**ClientName – the name of the client who placed the order**

**ClientPhone – the phone number of the client who placed the order**

**ClientEmail – the email of the customer who placed the order**

**ClientAddress – the address of the client who placed the order**

**EmployeeName – the name of the operator who last processed the order**

**DateAdded – date the delivery was added**

**DateModified – date of delivery modification**

**OrderStatus – the order status number**

**OrderReason – the reason for adding and/or changing the order**

As you can see, the information about the orders is comprehensive and you can always make a detailed confidential report about them as well as an invoice and the report files in the software are made for this so KNOW!!!!

### **ExtendedBrandsView**

This view is made to show the small amount of brand data that is kept in the database, but as little information as there is, it is still worth keeping confidential, as it will be sufficient for internal company information

**COLUMNS:**

**ID – the brand number in the database**

**BrandName – the name of the brand in the database**

**THIS VIEW IS FOR STRICTLY CONFIDENTIAL REPORTS SO NO ONE WILL RELEAS THE INFORMATION TO OUTSIDE PARTIES NO MATTER HOW SMALL IT IS FOR AN IN-COMPANY REPORT!!**

### ExtendedVendorsView

This low-data view, like the brand view, is made for confidential information and shows everything recorded in the database about the suppliers of the products you use

**COLUMNS:**

**ID – the number of the supplier of the products**

**VendorName – the name of the supplier of the products**

**THIS VIEW SHOWS STRICTLY CONFIDENTIAL INFORMATION AND SHOULD NOT BE SHOWN ANYWHERE OUTSIDE THE COMPANY NO MATTER HOW LITTLE INFORMATION IS IN THE DATABASE ITSELF!!! WHOEVER SHOWS IT WILL HAVE HUGE CONSEQUENCES!!!**

### ExtendedPaymentMethodsView

Shows all payment method details to see what you need however little information is saved and to be used as payment method information rather than details but should not be displayed except in the company

**COLUMNS:**

**ID – the number of the payment method in the database**

**MethodName – the name of the payment method in the database**

**REPORT INFORMATION FROM THIS VIEW IS STRICTLY CONFIDENTIAL NO MATTER HOW SMALL IT IS AND ANYONE DISCLOSED TO OUTSIDE PERSONS WILL BEAR THE CONSEQUENCES AS IT SHOULD NOT BE SHOWN ANYWHERE EXCEPT AMONG COLLEAGUES IN YOUR COMPANY!!!**

### ExtendedDeliveryServicesView

This view shows all the data about delivery services and like most of the views it could show a lot more if it was made to actually work properly and not disrupt the other parts of the database, but the data in it is confidential and allowed to reports are generated only in your company about them.

**COLUMNS:**

**ID – the delivery service number in the database**

**ServiceName – the name of the delivery service in the database**

**ServicePrice – the price of the terms of delivery as it was on the site and as recorded in the database**

**THIS IS CONFIDENTIAL INFORMATION AND SHOULD NOT BE SHOWN ANYWHERE OTHER THAN WITHIN THE COMPANY AS DISCLOSURE COULD LEAD TO SERIOUS PROBLEMS INSIDE AND/OR OUTSIDE YOUR COMPANY!!!!**

### ExtendedProductView

Like all views except for deliveries and orders, this view contains information about the product from to and should not be displayed anywhere except as a company confidential report, so be careful what you do with the information from the views and what you don't

**COLUMNS:**

**ID – the product number in the database**

**ProductName – the name of the product**

**BrandName – the brand name of the product**

**VendorName – the name of the product supplier**

**ProductDescription – the description of the product**

**ProductQuantity – the quantity of the product in the warehouse**

**ProductPrice – the base price of the product**

**ProductExpiryDate – the expiration date of the product**

**ProductRegNum – the product registration number**

**ProductPartNum – the product part number**

**ProductStorageLocation – the location of the product in the warehouse**

**BECAUSE IT SHOWS DETAILED INFORMATION ABOUT THE PRODUCT IT SHOULD NOT BE SHOWN OUTSIDE THE FIELD OF THE WORKPLACE AS THIS COULD CAUSE PROBLEMS!!!**

So as you can see most of the views are private and should not be shown publicly unless it's important and they could show a lot more useful information but I didn't manage and so most of them are thumbnails but with more development time this would have been easily fixed anyway if I had been smarter or found a way in time but yes those reports that show the most information will make you do a lot more work than the others and are made to be able to to be used for invoices to be given to users who are customers so that only the necessary information can be provided when and where it is needed. These report views are important and it's how you use them to see how the information works and whether it's displayed correctly or not, and to see it in more detail and in place instead of using thousands of stored procedures and getting headaches , and as we know, the more things in a program, the more things to do, and for this reason, most views are confidential, and from them you can find what information is required and with more effort, and add important statistics as well , something I personally tried to do but failed because I hadn't done it right. Now that you know about outlook you will know who goes where and how to use it and stick to your own responsibility BECAUSE WHAT YOU DO DEPENDS ON WHETHER YOU WILL SUCCEED OR NOT WHETHER YOU USE THIS INFORMATION SYSTEM, ANOTHER INFORMATION SYSTEM OR NO INFORMATION SYSTEM!!!

## **ROLES:**

If stored procedures are the muscles and nervous system of the information system I've created, and triggers are its heart and brain, then roles are its skeleton, allowing solid protection and hierarchy in its operation and essential in controlling access to anyone who uses the information system, and as you already know if you have come this far you will know that entering the database from the software side is closely related to the user data that is recorded in the information system table and changes when there are orders everywhere and that it cannot be changed because the structure and data are closely related to ensure their proper use, change and validity every time you run your business or do your work, and so you need a solid hierarchy to define exactly who to where in tables and stored procedures can be accessed and not be indiscriminately manipulating the data and touching where you shouldn't have rights that your role normally gives, this is hard coded in the database roles and also in the software part and provides a skeleton , which cannot be changed, but there is a simple and effective way to change everything to the way it should be instead of breaking everything and the information that is given becomes wrong and cannot be fixed later, leading to doom for everything you've fought for all your life and everything you've sacrificed to get to the bottom, and as you know, the bottom is hard to get out of even when you know what to do, and that's why these roles protect the system and give you rights to you do what is required so that you don't make mistakes, just like the "anti-fool system" in Chernobyl was supposed to protect the reactor from the evil experiment that led to many casualties (as far as I've heard it was literally called the "anti-fool system" ) while it was on because those who did this experiment that destroyed the reactor and made a symphony of destruction to entire cities in Ukraine, then part of Soviet Russia, decided to turn it off and do what they wanted and they took not only their lives but the lives of many people as well as the economy of their country by taking the economy off the nuclear power they had then. The roles in the information system are three and they are there precisely so that they do not become such symphonies of destruction in your business and in your work in general and do not create unnecessary problems for you or those you work with, showing once again the symbiosis between the man and the system he uses to help him and the responsibility and sacrifices required in using such monsters and angels of death created to help with the work when it gets too big for one person and/or group of even people!

### XPAdmin

This is the administrator role in the database schema and gives full rights to all tables and stored procedures in it. Administrators have full rights as operators in all tables and stored procedures described so far and are required to use them responsibly as database administrators. They can change everything in the information system database and have the same or similar rights as the standard db\_owner role, but with their own role they differ from system administrators who have full rights to the operating system and to the database management system itself data on which the database of this information system and all its logic is hosted. With these rights, whatever changes and mistakes there are in the tables and stored procedures will be able to have them corrected if someone accidentally changed them by making a mistake in their logic or if they found bugs that need to be fixed, or if they can much better logic is used to create, modify, read and/or delete the data in order to preserve its structure and validity. This role is the most important because it provides full access and full responsibility over the care of the stored procedures, including triggers, and the structure of the tables, but cannot change the login data and create users in the database and this is done in order to secure the data and the entire information system as a whole. Users and logins in the database itself are taken care of by users with server roles such as SYSADMIN, SECURITYADMIN and ###MS\_LOGINMANAGER### so that everything is correct in securing access because when testing even the triggers, things, which had required the rights of server administrators such as automatically creating logins, changing roles and rights and creating anything else on the server could not be obtained and this created security problems and made the entire information system unstable and due to this reason I had to remove them, leaving the responsibility for this to the database system administrators instead of the database administrators themselves, so that there can be good security and prevent the creation of login backdoors by exploiting the creation automation and /or the ability to manually create malicious logins for both the information system and the database management system and for the company using any information system in general. In the table for users of this information system, this role number is 0, indicating that it is closest to the database and has the most rights of all the native roles of the information system in the database.

### XPEmployee

This is the role of job workers and database operators. It provides limited rights related to changing your own user profile (you will need help from system administrators for this), registering in the system if there is a site attached to the information system (currently there is none), deleting your own user profile (you will need help from system administrators admins for this), reading the tables of users, product brands, products, payment methods, and shipping and handling services ONLY on the tables of PRODUCT IMAGES, PRODUCT ORDERS, and DELIVERY OF PRODUCT ORDERS!!! This ensures the correct change of data in the hierarchy of both this information system and the work you have undertaken and for which you use it, and the correct use of data and its successful calculation can make the change in any work and to grow small and medium-sized businesses into huge corporations, factories, conglomerates, labor unions and cartels that dominate the economy of both their own country and the rest of the countries they trade with and both build bridges and burn bridges, but still offer the necessary products, in this case pharmaceutical products and drugs that will help our health in any case, and if the drugs do not help, then alternative medicine can also help if it is authorized by the health fund and can be sold through this information system. The workers or I also call them the operators because they also manipulate the database and the site and view and work on what they need to have limited rights to know what to focus and work on and work on their rights can be further improved in subsequent versions of this information system depending on what can be added, changed and/or deleted in its infrastructure to improve everything described so far, including these roles, and this role is the SECOND MOST IMPORTANT IN THIS INFORMATION SYSTEM and should not be overlooked because the access it provides and the similar controls and restrictions it provides is hard-coded into the software itself, and the software is currently much more development-sensitive and crash-prone than the database itself, and you will see why. The number of this role in the database is 1, indicating medium proximity and also important to the database

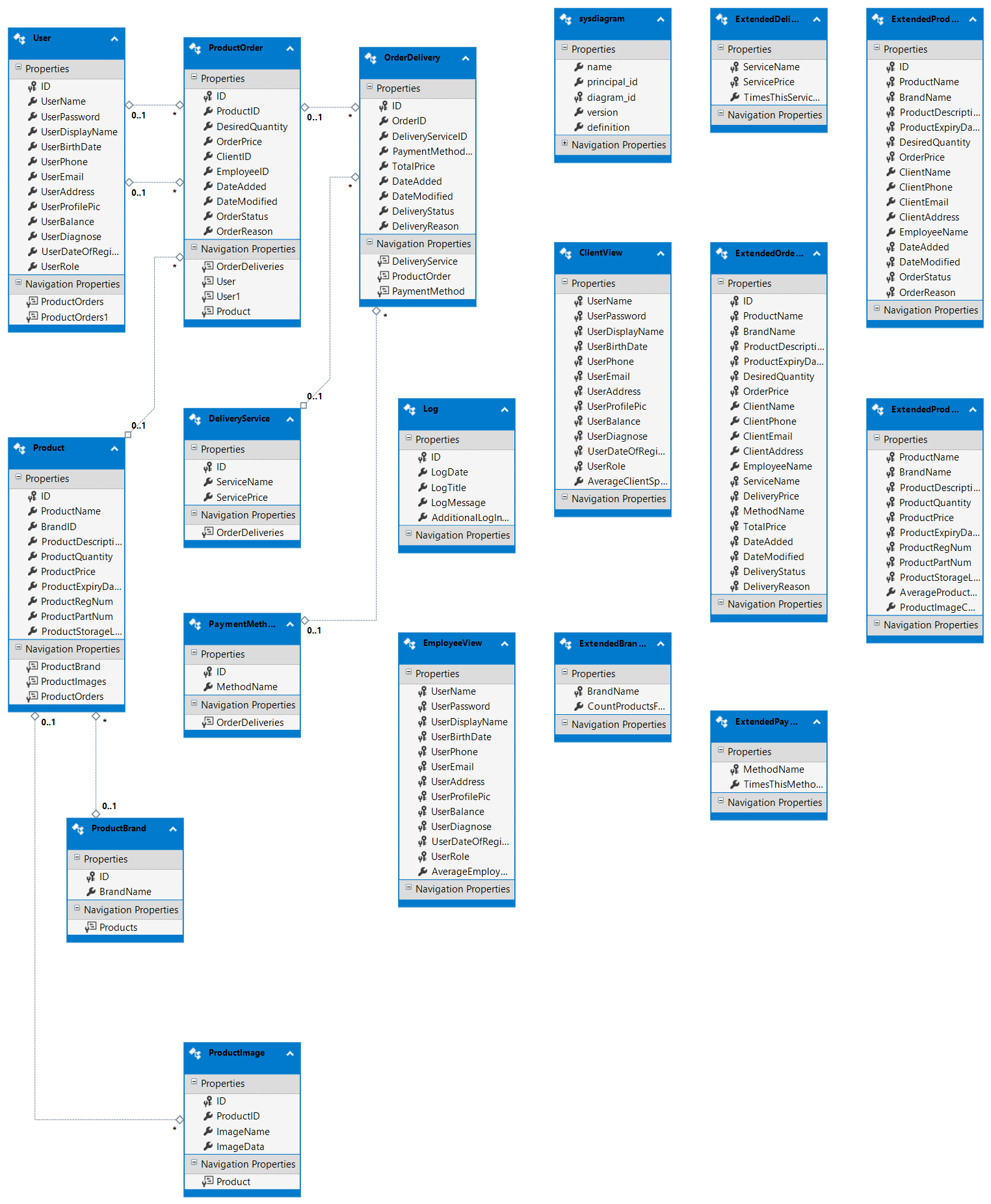
### XPClient

This role is for customers, she can also like operators change her own user profile, add and change orders with more restrictions than operators, however, but not delete them in general, and most things if given with access from a site can only be viewed on the site by users with this role and only selected when automatically creating orders and deliveries for your company's products, but changing your own user profile will require system administrators, not those administrators who are on the scheme of the database to help and confirm the change of login data and user rights, no matter what the role is, but in the software part of the information system, customers cannot and should not log in due to tightening the security so that this cannot be seen, which should not leak information due to unauthorized access of anything in the database because this can always be dangerous because of the privacy of both the customers themselves and the operators and all company data which is strictly confidential and access to them is otherwise prohibited in order to ensure proper customer access. Customers are there to request the services of the company, not to participate in it, so that this is known and there is absolutely no unauthorized access anywhere, and for this reason customers have the least rights as a role and can mostly read, and the manipulation is very little since, after all, they are outsiders to the company and that is their right to information in it. When their access is secured in another way, and not through the administrative software, everything will be accurate and transparent, and the data will be protected enough to keep everything in order. This role is not the most important, but it is not less important than the other roles in the database, and without it the skeleton and hierarchical structure of access would not exist, but there would be only one huge chaos of access and processing all information, leakage of anything and a complete symphony of devastation as happened not only in Chernobyl, but also in Fukushima in Japan, where there was a tsunami, so customers have very little access and it is not through the administrative system and this ensures the security of the data and the need for every operator whether a system administrator, database administrator or a simple worker to provide feedback to every customer and improve the system as much as possible if they know how, and this will be discussed shortly, you just wait and see! This role is number 2 in the database, indicating that it is the furthest away and has the least rights, but is still important to the operation of the system.

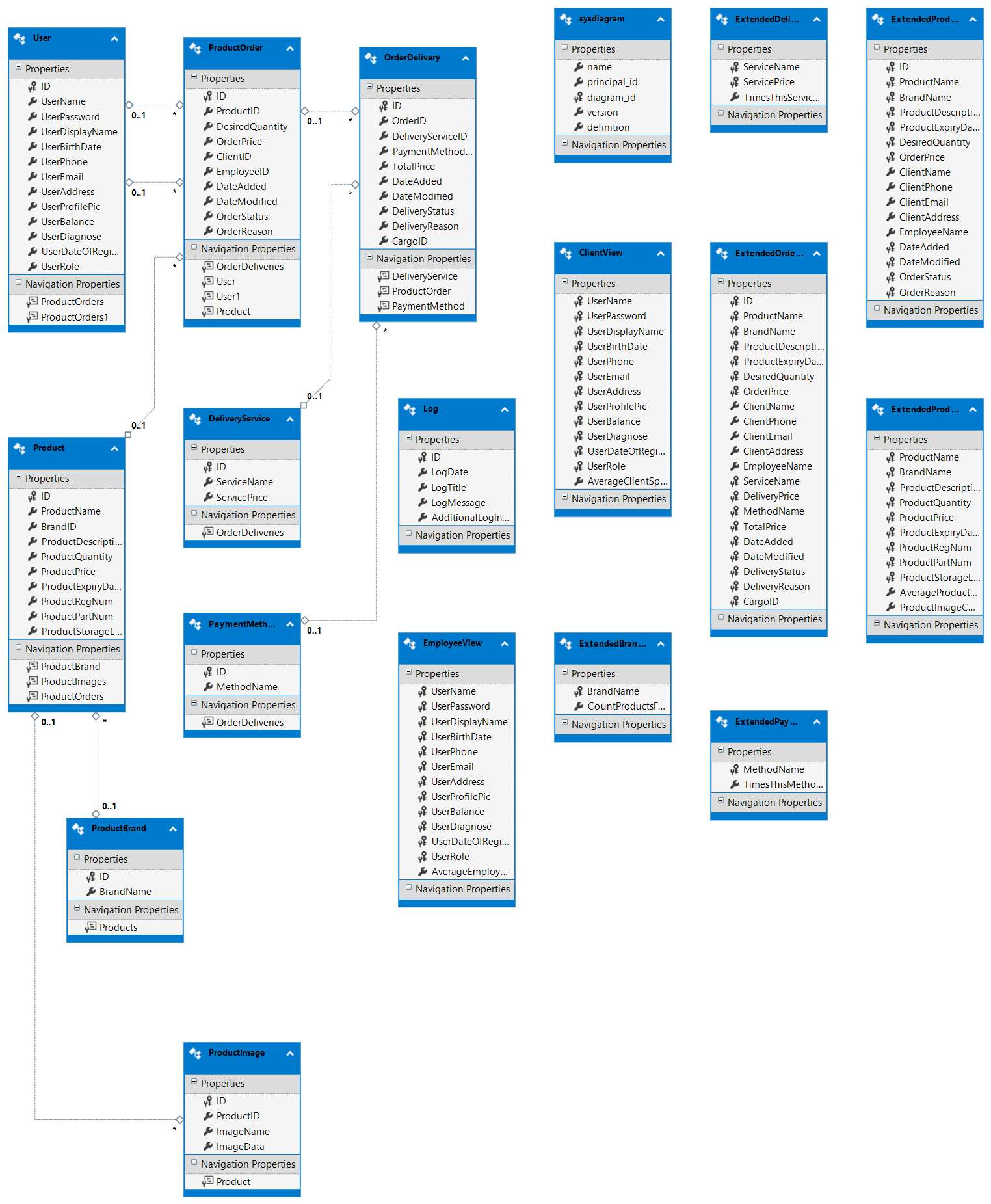
## DATABASE EVOLUTION AND DEEVOLUTION:

After all, this information system until it became what it is now has had many highs and lows both on the database side and on the software side, and even if I didn't keep a chart of the evolution of the software here I will memorize a chart of the evolution and the de-evolution of the database to see how many things of my soul I have sold, where I have succeeded and where I have failed in development, and judge when and what grade you will give me. Even if this information system database is a monster, it can always become bigger and more monstrous than this little monster that it is now, and that described what it does on the database side, and can always be improved on the design side, too. both in terms of functionality and to put a lot more stuff than these little things into the whole documentation and for that reason I'm going to show you as much as I can of the highs and lows of everything I've done. As I said, the views and tables in particular could have a lot more material and actually do the job they were actually created for, not just copy the tables to create reports in a safe way, but unfortunately I couldn't create that, but hey I've built other things on the software side and you'll see them soon. The database performs half of the logic, the software has the other logic and therefore you will see for yourself when the time comes, and the time will come soon because the clock is ticking and time flies even if we don't want it to. This information system won't seem as big as the information systems I was inspired to create, but it's simple, crude design and focused more on functionality and working under the hood than beauty, huge and megalomaniacal design and things like previous information systems . When you see evolution and devolution and you'll laugh and cry and laugh at me, but I don't care, that's my database work and you'll soon see my software work when I describe it, so what's more to be displayed and after I complete this page and show you as many pictures of the diagrams as possible you will see the full picture about the database and what it consisted of all along even if I did not write it myself, but the Internet is also used, and artificial intelligence so that I can actually learn to write it and waste your time with it instead of letting you do your work as you need to and as you really should, time is precious and after these texts I will not waste it, and I will show the evolution and fall of my work and you will judge for yourself whether it was worth it for you or not!

### FIRST DIAGRAM – April 8, 2024

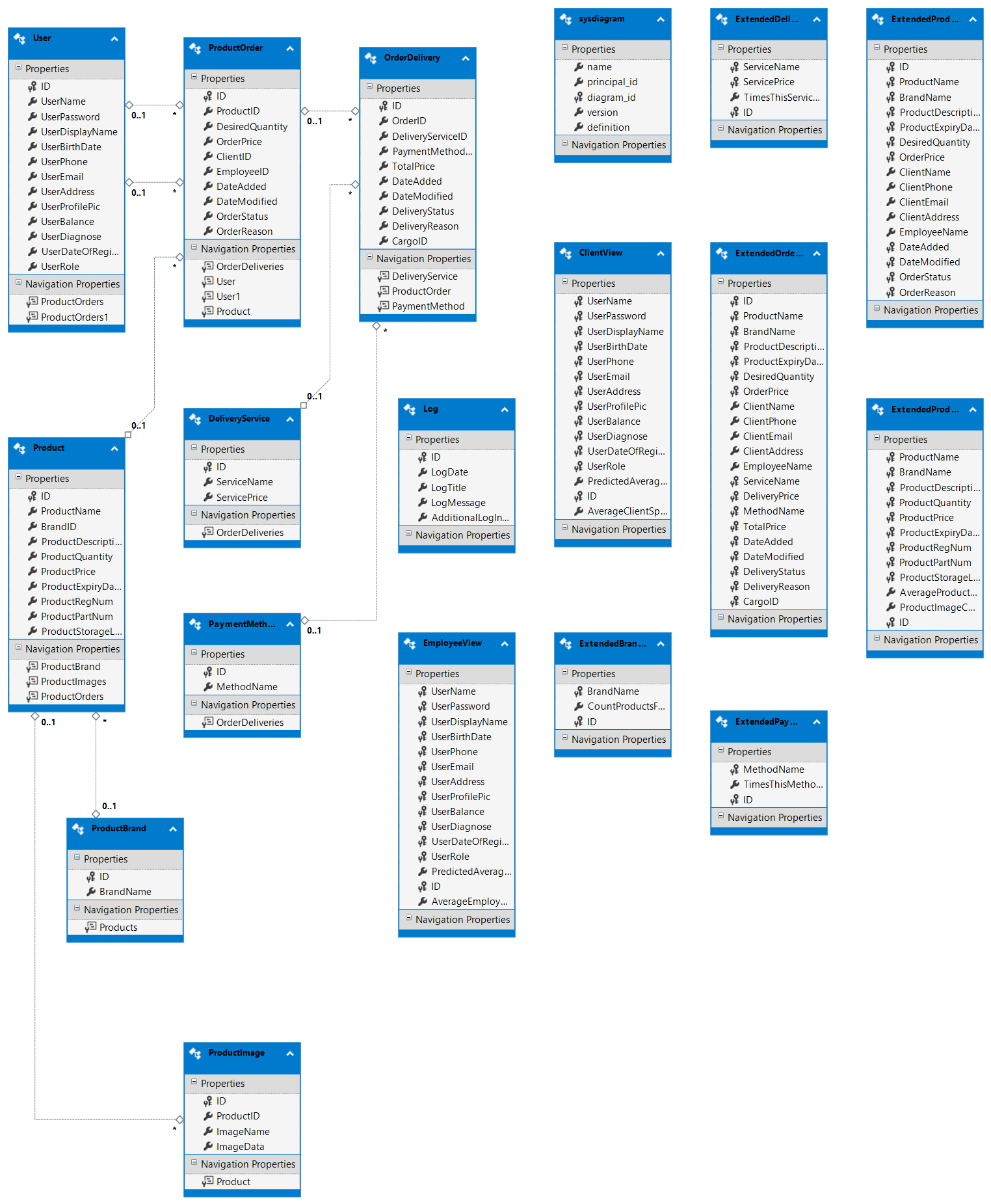


### SECOND DIAGRAM – April 16, 2024

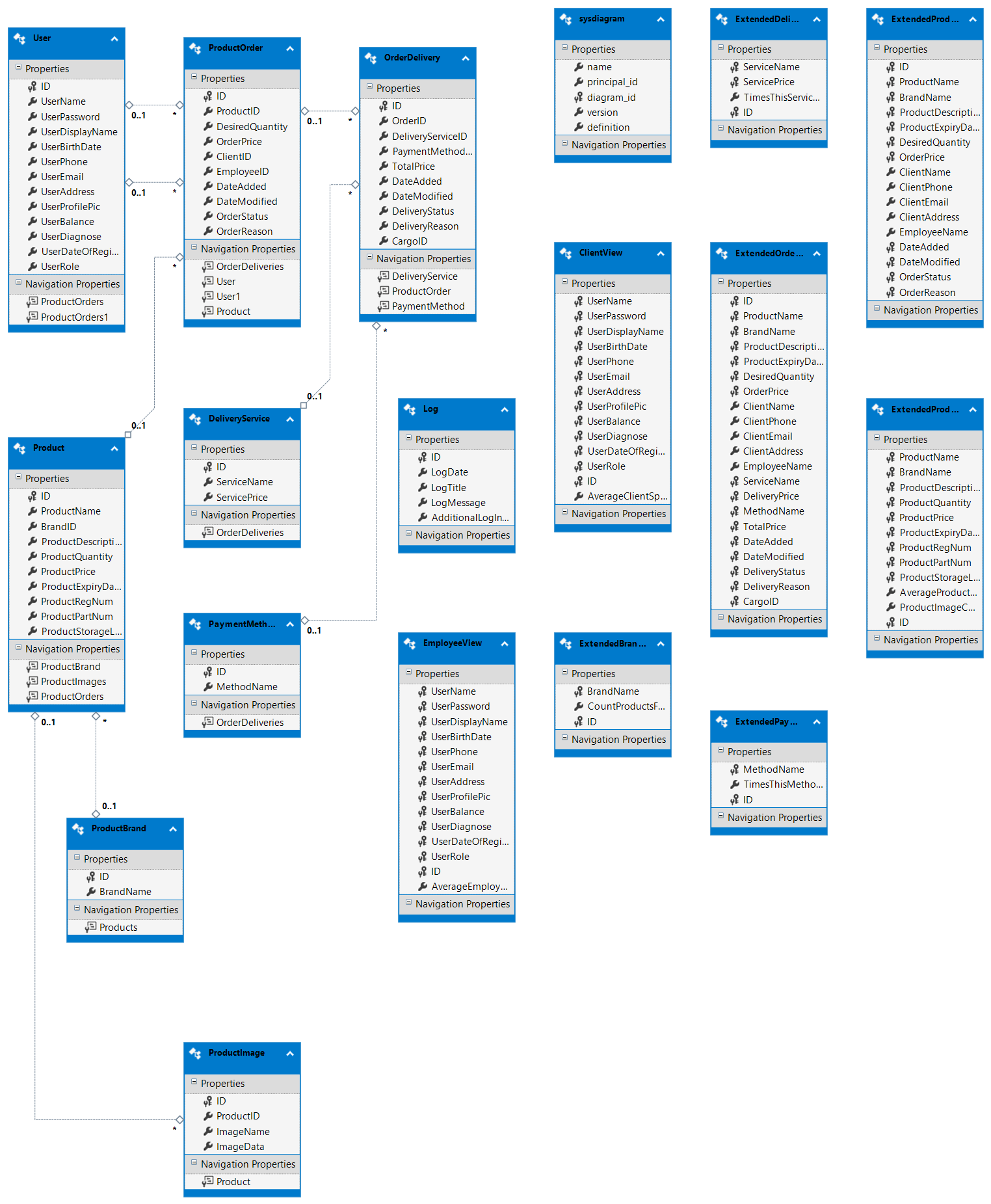


### THIRD DIAGRAM – April 22, 2024

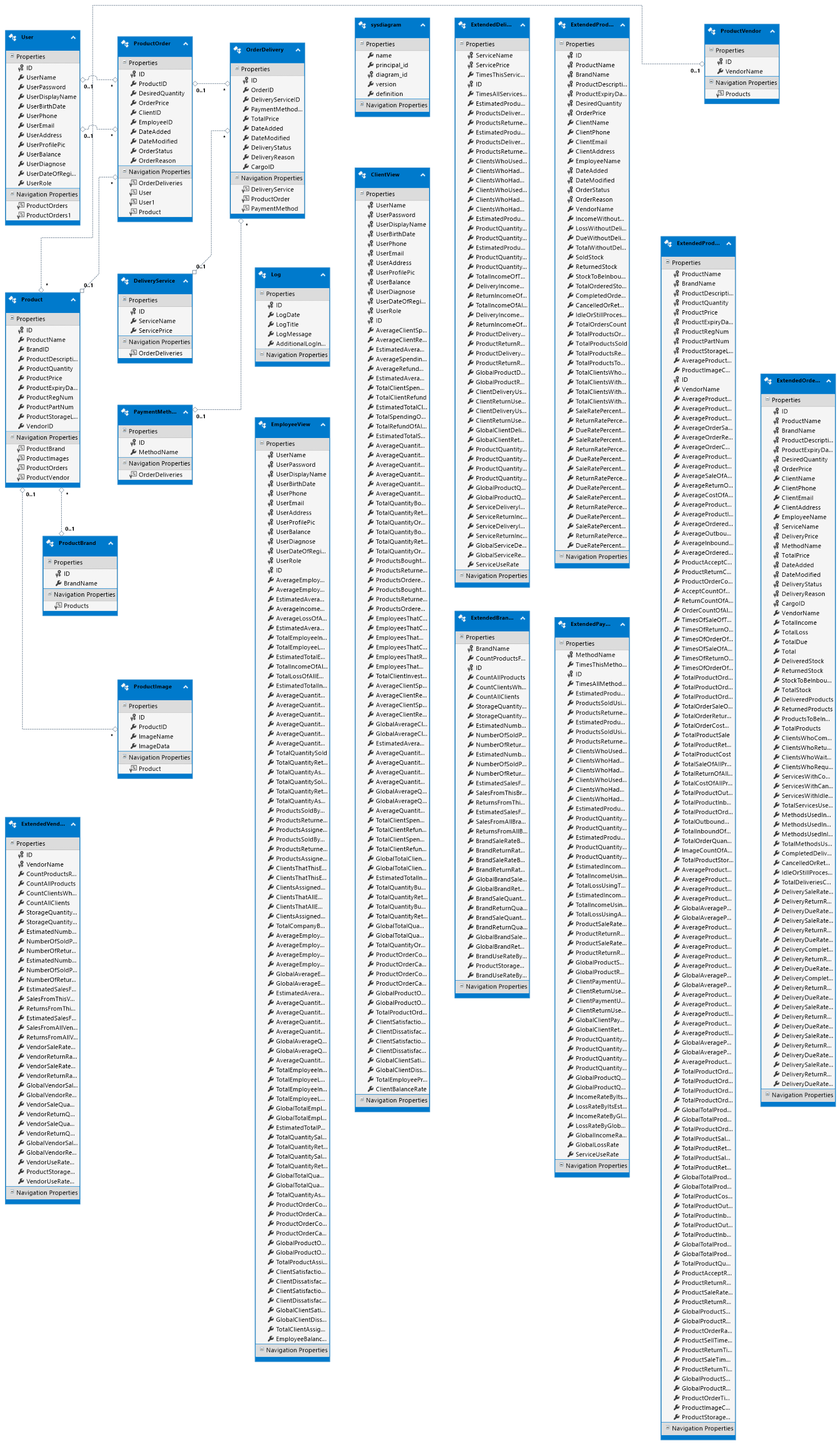
### FOURTH DIAGRAM – May 7, 2024



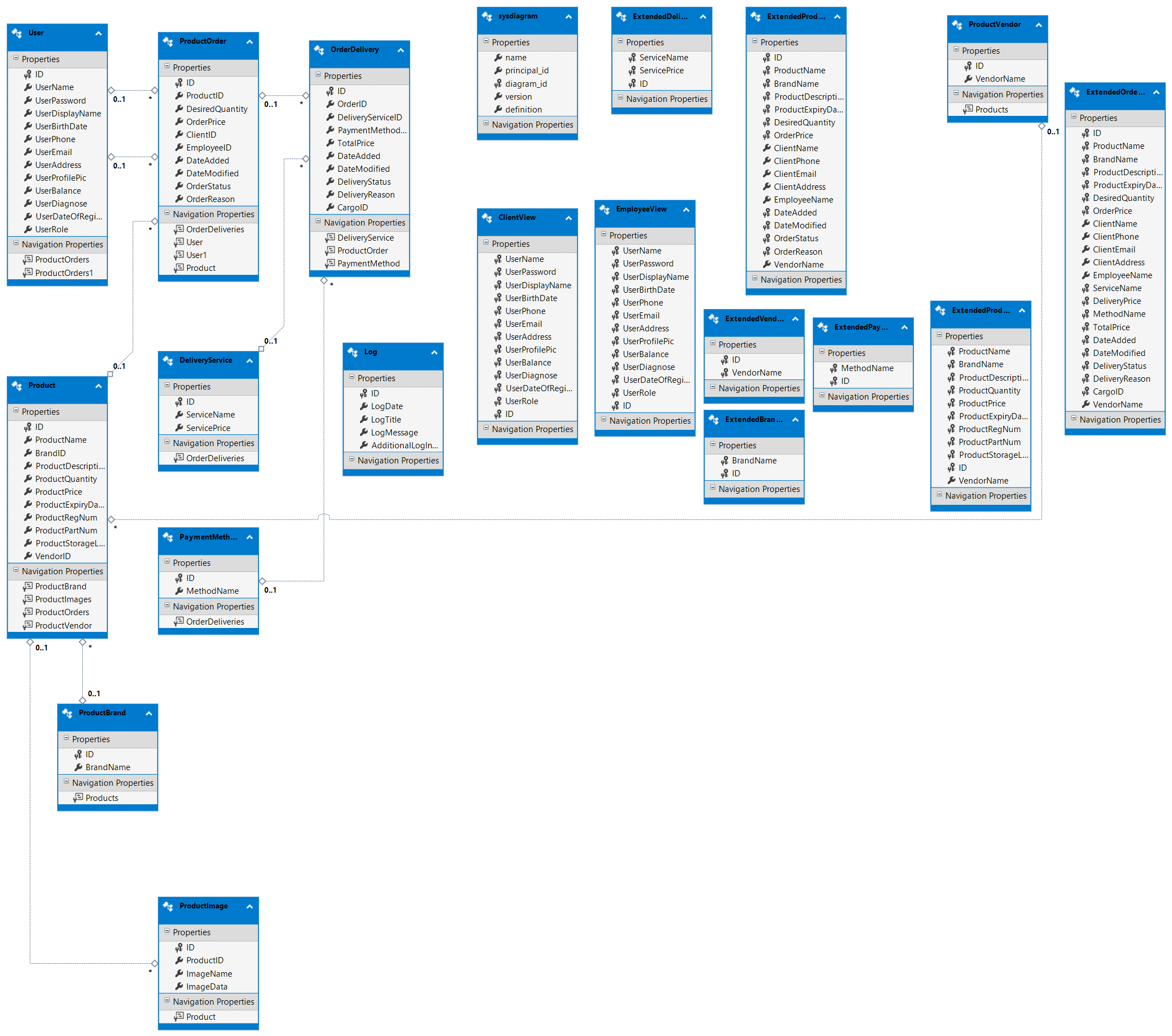
### FIFTH DIAGRAM – May 7, 2024

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### SIXTH DIAGRAM – May 17, 2024



### LAST CHART – May 23, 2024

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### CONCLUSION:

Now you have seen the black shame of my labor and my successes and my failures, and you will understand more, for this is not the end. The software took longer than the database to build and get to functionality rather than a nice and eye-catching design, and there is still work to be done on it, so there will be a lot more to read after this page, but on the diagrams of database you will see what I mean the database itself could really provide and process more information than it does now and certainly in the future if you decide to develop it yourself as I have made it open source you will be able to extend it to much more functionality if that's not enough for you!

# SOFTWARE:

The software of this information system is simple and crude in design just like my mind and it took more time to develop than the database, but it is not made to be perfect but to function AS IT SHOULD!!!

It has many features that can be used and adapts to the users role, and when it connects to the database it uses the user data and has huge settings to customize it and set it up to connect to the database. For now this program and the information system itself does not have an installer due to my focus on making this software actually work as it should and do what it was designed to do along with the database, so installation instructions will be provided as well as system requirements with full details and instructions on the do's and don'ts of using it and how it can be created and modified if you want to continue its development, so read carefully so you don't have any questions later on about what it is and how it is, and if you have, you know where to find me as I will leave contact information. You won't be impressed with the software and its design, but this is what I'm going to show you and THIS IS WHAT I'VE DONE FOR MYSELF AND YOU!!! If you want to read, if you don't want to don't, but this database and software daemon is of my own design, not even entirely my own code, and I've tested it and it works, as you'll see! There are many features that can help you and user roles are made to have similar access control as in the database and the control is much stricter than in the database to ensure everything is needed for proper access and manipulation of the data when and where needed to work with the information system and everything related to them is hard coded and you won't be able to change it unless you recompile the program and because the hard coded strings that match for everything you see on the windows and for the tooltips for everything that is part of the fields of each window, so don't open in the design window as I haven't put them as datalinks and everything will be completely empty in the design! There is still work to be done in the next versions of the information system software, and now the version is 1.0.0 and you will find out what it does later when I describe everything, but this program is your connection to the database and will show you depending on rights what can you do and even if you try to hack it with something like CheatEngine or some other memory injection program the database queries will show you what rights errors you have and you won't succeed unless you try to hack in the database BECAUSE YOU MIND!!!

### SYSTEM REQUIREMENTS:

**SOFTWARE NAME: XTreme Pharmacy Manager**

**VERSION: 1.0.0**

**Description: A program for business administration of a pharmaceutical company, part of the information system of the same name, it allows access to the database, has both ordinary operations and asynchronous operations, is made as optimized as possible, with simple, ugly and nasty like my soul devil design and many features that can help you and again, control over who enters and who uses it against the role in the database and complement. With many settings you can customize it and after you put resource files in different languages ​​to it and compile you can add more languages ​​in the language settings file and extend it and you can also customize your database user account like of course you have that option, but for some things you need help from system administrators and database administrators.**

**Resolution: minimum 1366x768, less than that is not possible as windows are targeted at this resolution**

**.NET Framework version: 4.7.2 or greater, this program is built on this version and you will need all the features it provides and if you don't have it this program will not work**

**Operating System: Windows 7 or above, I checked the system requirements of .NET Framework version 4.7.2 and the minimum requirements are Windows 7, but if not, please try this program on Windows 10 or above because it is developed to work on a Windows 10 PC in general**

**SQL Server version: SQL Server 2022(MSSQLSERVER16) or higher, because the queries use as much of the server's features as possible, so you know!**

**Minimum hard drive space: 15 to 20 gigabytes or more because of all the files there are. There may be less, I don't know, but I would recommend that**

**Minimum amount of operating memory (RAM memory) - according to the requirements, preferably from 2 gigabytes upwards, as I saw that during testing, 300 or more megabytes of data were written to the memory, regardless of what optimizations I tried to put**

**CPU Cores: Most of 1 because of one thing this program has, so to run you may need to use as many cores as possible to avoid waiting!**

### INSTALLATION INSTRUCTIONS:

Anything that is downloaded from the GitHub page as a release you download and first open SQL Server Management Studio on the server computer and run the XtremePharmacyDB.sql file so that it can run and create the database from start to finish and be able to log in, then so put in the Users table your login details like username or password and other things you want to put in your user details and put the role as 0 or admin and then add your login details to the XPAdmin role in the database and REMEMBER THESE STEPS BECAUSE THIS IS HOW YOU WILL ADD EACH USER WHEN IT IS ADDED TO THE DATABASE TABLE FROM NOW ON. Make sure to open the port to and from SQL Server and test the connection to the database from another computer using SQLCMD and/or SQL Server Management Studio to make sure everything is ok and if everything is ok go to the program and app.config and see keys that say dbuser and dbpassword they have no default value so put your database login and for domain put your server ip address and i mean your public ip address as seen in the global network. IF YOU ARE NOT SURE YOU CAN CHECK YOUR SERVER COMPUTER ADDRESS AT[**www.whatismyip.org**](http://www.whatismyip.org/)**AND/OR C**[**www.speedtest.net**](http://www.speedtest.net/)**AND THIS WAY YOU WILL KNOW HOW TO SET UP THIS PROGRAM ON ALL THE COMPUTERS THAT ARE PART OF THE NETWORK SYSTEM. Also, if the address is internal and you are connected on a local connection rather than on a domain, you can use commands like ipconfig or ifconfig to see the local IP address of the server computer and record it as a value in the domain key of app.config of the program if you're on Linux and running this program with Wine, which I haven't tested since this program is made to run mostly on Windows, not cross-platform, but it might in the future and/or someone to make your program based on it cross-platform, then in the company\_name key replace "Your Company Name" with your company name so it can be seen in your reports. If you have done everything correctly you will be able to connect from any computer in the company network successfully and the information system will be ready to use so you can start working and use it for your business purposes and start your work successfully and build your company.**

### PROGRAM FEATURES:

This program provides everything you need to control user data in the information system, about products, data about payment methods, orders and deliveries in the information system. It is how you create, modify, search and delete orders and uses your table login credentials in your information system to give you access to the database using both its stored procedures and custom queries to search and manipulate data. , and its security systems are stronger than that of the database, so BE WARNED!!!

**COMMON OPERATIONS: Search, add, modify and/or delete data via stored procedures and LINQ queries and a persistent connection to the database while the program runs with a constant reload of the database data (and unfortunately because of this reload delay of about 10- 15 seconds at best) to provide up-to-date information at all times and ensure that there is no discrepancy between the data in the program and that in the database. Whether you will be able to do them or not depends on your RIGHTS**

**ASYNCHRONOUS CONCURRENT OPERATIONS: Done your own way with own classes and made to be extendable and create new operations for as many tables as you can add so you can simultaneously add, modify, delete and/or execute your jobs to put in, and they run asynchronously so there's no data deadlock if normal operations slow down. There are three levels of execution of asynchronous tasks, and even though asynchronous tasks can run on single-core and single-processor computers, they can run very slowly and become difficult when you want to perform operations on many jobs at the same time in the database. When developing and supplementing the program you will see this well.**

**SAVING LOGIN DATA: Every time you log in with a new database user it is saved by serialization to binary files (BIN) and when you run the program next time it will load you and you can add but not remove (except temporarily from list in memory) the login details you used to log in before.**

**REPORT CREATION: Creates reports for all tables that require reporting and/or invoices, showing as much information as possible in them and most are CONFIDENTIAL.**

**LOCALIZATION: For now, everything is translated via resource files from the design, to the messages, and the program is in English, but later I'll make the program pull everything from data files (DAT) instead of always having to compile after adding of the resource files in the project, and to achieve this function as it is now was full AD and the program is unstable because of it for now. Language data is stored in XML and will be discussed later, and reports will only work if there are translated report files with [report name].[language code].rdlc, such as ProductReport.en-US.rdlc for product report in english and so. This program is only available in English at the moment.**

**APPLICATION SETTINGS: Lots of settings from server connection, login details, report names and the folder they are in, so if you change the folder you will need to move all the report files into it for the reports to be generated. This is important so that everything can be created correctly and everything can work. Also changing the folder for the saved logins as it changes the files should also be moved.**

**USER PROFILE SETTINGS: The user profile can be partially changed, but to do it all, system administrators and server administrators themselves need to change your database login details, so be careful when, how and what you change as user details with this feature that BE CAREFUL!!!**

### COMMON/BASIC OPERATIONS:

The simple or rather basic operations are for adding, changing, deleting and viewing data. In each window for basic operations it is checked for the user role of the one who is logged in and then it is decided whether to execute or show an error message and basically if you are not of a certain role the program itself will kick you out, but if you are with the allowed roles it will give you and/or not give you access to the corresponding windows in the menus and/or if it gives you it will constantly remind you every time you switch from and to a window what rights you have according to your role and what you don't and this is to ensure correct and solid access to the information, as well as solid protection against unauthorized changes to it! Everything is done to ensure hierarchy and proper access, so anyone who wants a more forgiving information system to work with better go and get it from the paid ones, I can do that much with an open source program that doesn't i win nothing, at least for now.

**Users – for adding and/or editing users, there is a dialog for editing and applying changes upon confirmation and/or rejection, and searching for users in the user search panel and their data can be searched in the following ways: by one criteria , all other criteria are excluded, and search by one criteria, with LINQ queries, by many criteria, search by many criteria, will display the results that match one or the other criteria from the specified criteria, with LINQ queries, search by all criteria, displays one or more results with a stored procedure and displays exactly what you want, and search by no criteria, uses a stored procedure and displays all results without exception, and all by selecting a search mode from SEARCH MODE and clicking the SEARCH button, the buttons for data manipulation are ADD/EDIT and DELETE, and for generating reports is through the GENERATE REPORT button. Addition, editing and/or deletion of data is allowed and/or prohibited depending on the operator's role and especially the data with number -1 in the database can never be operated because it is exemplary and valid in the relationships between the tables. The lookup window also allows you to create reports depending on the table so you know. Changes to this table can only be made by administrators!!!**

**ProductBrands - for adding and/or editing the product brands, there is an edit dialog and apply the changes on confirmation and/or rejection, and the product brand search in the product brand search panel and their data can be searched by the following ways: by one criterion, all other criteria are excluded, and search by one criterion, with LINQ queries, by many criteria, search by many criteria, will display the results that meet one or another criterion from the set criteria, with LINQ queries, search by all criteria, show one or more results with a stored procedure and show exactly what you want, and search by no criteria, use a stored procedure and show all results without exception, and all by selecting a search mode from SEARCH MODE and clicking the SEARCH button, the buttons for data manipulation are ADD/EDIT and DELETE, and for generating reports is through the GENERATE REPORT button. Addition, editing and/or deletion of data is allowed and/or prohibited depending on the operator's role and especially the data with number -1 in the database can never be operated because it is exemplary and valid in the relationships between the tables. The lookup window also allows you to create reports depending on the table so you know. Changes to this table can only be made by administrators!!!**

**ProductVendors - for adding and/or editing the product vendors, there is a dialog box to edit and apply the changes upon confirmation and/or rejection, and the search for the product vendors in the product vendor search panel and their details can be searched by the following ways: by one criterion, all other criteria are excluded, and search by one criterion, with LINQ queries, by many criteria, search by many criteria, will display the results that meet one or another criterion from the set criteria, with LINQ queries, search by all criteria, show one or more results with a stored procedure and show exactly what you want, and search by no criteria, use a stored procedure and show all results without exceptions, and all by selecting a search mode from SEARCH MODE and clicking the SEARCH button, the buttons for data manipulation are ADD/EDIT and DELETE, and for generating reports is through the GENERATE REPORT button. Addition, editing and/or deletion of data is allowed and/or prohibited depending on the operator's role and especially the data with number -1 in the database can never be operated because it is exemplary and valid in the relationships between the tables. The lookup window also allows you to create reports depending on the table so you know. Changes to this table can only be made by administrators!!!**

**PaymentMethods - for adding and/or editing payment methods, there is a dialog box for editing and applying changes upon confirmation and/or rejection, and searching for payment methods in the payment method search panel and their details can be searched by the following ways: by one criterion, all other criteria are excluded, and search by one criterion, with LINQ queries, by many criteria, search by many criteria, will display the results that meet one or another criterion from the set criteria, with LINQ queries, search by all criteria, show one or more results with a stored procedure and show exactly what you want, and search by no criteria, use a stored procedure and show all results without exception, and all by selecting a search mode from SEARCH MODE and clicking the SEARCH button, the buttons for data manipulation are ADD/EDIT and DELETE, and for generating reports is through the GENERATE REPORT button. Addition, editing and/or deletion of data is allowed and/or prohibited depending on the operator's role and especially the data with number -1 in the database can never be operated because it is exemplary and valid in the relationships between the tables. The lookup window also allows you to create reports depending on the table so you know. Changes to this table can only be made by administrators!!!**

**DeliveryServices - for adding and/or editing delivery services, there is a dialog for editing and applying the changes upon confirmation and/or rejection, and the search for delivery services in the search panel for delivery services and their details can be searched by the following ways: by one criterion, all other criteria are excluded, and search by one criterion, with LINQ queries, by many criteria, search by many criteria, will display the results that meet one or another criterion from the set criteria, with LINQ queries, search by all criteria, show one or more results with a stored procedure and show exactly what you want, and search by no criteria, use a stored procedure and show all results without exception, and all by selecting a search mode from SEARCH MODE and clicking the SEARCH button, the buttons for data manipulation are ADD/EDIT and DELETE, and for generating reports is through the GENERATE REPORT button. Addition, editing and/or deletion of data is allowed and/or prohibited depending on the operator's role and especially the data with number -1 in the database can never be operated because it is exemplary and valid in the relationships between the tables. The lookup window also allows you to create reports depending on the table so you know. Changes to this table can only be made by administrators!!!**

**Products and ProductImages - for adding and/or editing products and product images there is an edit dialog and applying changes upon confirmation and/or rejection and everything is presented differently and edited separately, and searching for products and product images in the general search panel for products and product images and their data can be searched in the following ways: by one criterion, all other criteria are excluded, and searched by one criterion, with LINQ queries, by many criteria, search by many criteria, will display the results that match one or other of the specified criteria with LINQ queries, search by all criteria, display one or more results with a stored procedure, and display exactly what you want, and search by no criteria, use a stored procedure, and shows all results without exception and when searching for products the images are also searched but when searching for images they are searched one by one by the products and everything is done by selecting the search mode from SEARCH MODE and clicking on the SEARCH button, the data manipulation buttons are ADD/EDIT and DELETE, and to generate reports is through the GENERATE REPORT button. Addition, editing and/or deletion of data is allowed and/or prohibited depending on the operator's role and especially the data with number -1 in the database can never be operated because it is exemplary and valid in the relationships between the tables. The lookup window also allows you to create reports depending on the table so you know. Changes to the product table can only be made by administrators, while changes to images can be made by both administrators and regular information system operators.**

**ProductOrders - for adding and/or editing orders, there is a dialog for editing and applying changes upon confirmation and/or rejection, and searching for orders in the order search panel and their data can be searched in the following ways: by one criteria , all other criteria are excluded, and search by one criteria, with LINQ queries, by many criteria, search by many criteria, will display the results that match one or the other criteria from the specified criteria, with LINQ queries, search by all criteria, displays one or more results with a stored procedure and displays exactly what you want, and search by no criteria, uses a stored procedure and displays all results without exception, and all by selecting a search mode from SEARCH MODE and clicking the SEARCH button, the buttons for data manipulation are ADD/EDIT and DELETE, and for generating reports is through the GENERATE REPORT button. Addition, editing and/or deletion of data is allowed and/or prohibited depending on the operator's role and especially the data with number -1 in the database can never be operated because it is exemplary and valid in the relationships between the tables. The lookup window also allows you to create reports depending on the table so you know. Changes to this table can be made by both administrators and regular operators, and that's how it should be.**

**OrderDeliveries - for adding and/or editing deliveries, there is a dialog for editing and applying the changes upon confirmation and/or rejection, and the search for deliveries in the search panel for deliveries and their details can be searched in the following ways: by one criteria , all other criteria are excluded, and search by one criteria, with LINQ queries, by many criteria, search by many criteria, will display the results that match one or the other criteria from the specified criteria, with LINQ queries, search by all criteria, displays one or more results with a stored procedure and displays exactly what you want, and search by no criteria, uses a stored procedure and displays all results without exception, and all by selecting a search mode from SEARCH MODE and clicking the SEARCH button, the buttons for data manipulation are ADD/EDIT and DELETE, and for generating reports is through the GENERATE REPORT button. Addition, editing and/or deletion of data is allowed and/or prohibited depending on the operator's role and especially the data with number -1 in the database can never be operated because it is exemplary and valid in the relationships between the tables. The lookup window also allows you to create reports depending on the table so you know. Changes to this table can be made by both administrators and regular operators, and that's how it should be.**

**Logs - Database logs are only readable and searchable, no one can edit them, and as with other tables, searching for database logs in the database log search panel and their data can be search in the following ways: by one criterion, all other criteria are excluded, and search by one criterion, with LINQ queries, by many criteria, search by many criteria, will show the results that match one or the other criteria from the specified criteria , with LINQ queries, search by all criteria, show one or more results with a stored procedure and show exactly what you want, and search by no criteria, use a stored procedure and show all results without exceptions, and all by choosing a search mode from SEARCH MODE and clicking the SEARCH button. BOTH ADMINISTRATORS AND ORDINARY OPERATORS HAVE ACCESS TO THE LOGS BECAUSE THIS IS IMPORTANT FOR EVERYONE WORKING WITH THE SYSTEM TO KNOW!!!**

### SIMULTANEOUS ASYNCHRONOUS OPERATIONS:

Concurrent asynchronous operations do not use SQLBulk, which is the technology of Microsoft SQL Server, but instead are made with their own class, from which the other classes are made, and you can extend it if you decide by further developing the software of your head, since this information system is open source. There are 5 types of concurrent operations: DEFAULT – INVALID OPERATIONCREATE – OPERATION TO CREATE DATA AND INSERT IT INTO THE DATABASEUPDATE – OPERATION TO CHANGE EXISTING DATA IN THE DATABASEDELETE – OPERATION TO DELETE EXISTING DATA FROM THE DATABASE – OPERATION IN WHICH YOU PUT OWN TASK AND YOU PERFORM IT SEPARATELY FROM THE TASKS FOR CREATE, UPDATE AND DELETE OPERATIONS!!!

**These can be found from the Bulk Operations menu on the main window's Window menu.**  
Each of these types of operations perform what is implied in the asynchronous task, and it depends on the type of the target object to adapt everything to different data types without a problem. List of tasks for each type of concurrent asynchronous operations:DEFAULT - NO TASK!CREATE - CreateTask - returns a boolean value fulfilled or notUPDATE - UpdateTask - returns a boolean value fulfilled or notDELETE - DeleteTask - returns a boolean value fulfilled or notCUSTOM - Custom Task - returns boolean value done or notEach of these tasks is set with sample data in the base class and overridden in the child classes, as CUSTOM operations can only work with CustomTask to work, otherwise they will do nothing, so if you are developing to know this. Also the data is made with template class to accept any type and the manager of these operations manages and displays full details of errors and messages on the execution/failure of an operation, can modify the data in the target object of an operation (on modification and creation a deep object is created to prevent the reference and modification of the original object and have no related objects), change in the object data of all operations, add an operation, remove an operation, and execute the operations asynchronously and non-blocking, and they are executed as as fast as the number of cores your computer's CPU has, or as many CPUs as your computer has if it's a multi-processor supercomputer like ENIAC and TITAN for example. Operations can be silent and show everything in them as logs, or show everything as messages so you can be bombarded with their errors if something goes wrong and see it if the operation logs aren't being read to you. Run and post-run logs contain everything from run success and/or error messages to run start time and/or run time, as well as overall run time to see the full picture. They, like regular operations, depend on the rights of the information system operator and can throw unauthorized access errors if necessary because managers and operations within them hold a reference to the current user and cannot be spoofed, and if you succeed, the base data will correct you. This also applies to windows and their access menus, so there are ways to get stopped if you try to do something wrong as the program adapts to the role. The buttons in the panels to work with simultaneous operations are: ADD OPERATION - to create an operation REMOVE OPERATION - to delete an operation EXECUTE OPERATIONS - to execute all operations in the list APPLY CHANGES TO CURRENT TARGET - to apply changes to the target object of the currently selected operation APPLY CHANGES TO ALL TARGETS - to apply changes to the target objects of all operations in the list What is important to know and watch in the panels is:BULK OPERATIONS – shows the list of current simultaneous operations that remain until they are executed or while the program is running, and when they are executed and/or the program is closed, they are deleted. close the program.OPERATION RESULTS – shows the results of the operations as number of completed, number of failed and execution time.

**Users: Create, change, delete and perform a simultaneous asynchronous operation related to user data and their complete addition, change and/or deletion. Only administrators can run them!**

**ProductBrands: Create, modify, delete, and execute a concurrent asynchronous operation related to product brand data and their complete addition, modification, and/or deletion. Only administrators can run them!**

**ProductVendors: Create, modify, delete, and execute a concurrent asynchronous operation related to product vendor data and their complete addition, modification, and/or deletion. Only administrators can run them!**

**PaymentMethods: Create, modify, delete, and perform concurrent asynchronous operation on payment method data and fully add, modify, and/or delete them. Only administrators can run them!**

**DeliveryServices: Create, modify, delete, and execute a concurrent asynchronous operation related to delivery service data and its complete addition, modification, and/or deletion. Only administrators can run them!**

**Products: Create, modify, delete, and execute a concurrent asynchronous operation related to product data and its complete addition, modification, and/or deletion. Only administrators can run them!**

**ProductImages: Create, modify, delete, and perform a concurrent asynchronous operation on product image data and its complete addition, modification, and/or deletion. Administrators and operators can use these operations.**

**ProductOrders: Create, modify, delete, and execute a concurrent asynchronous operation related to order data and its complete addition, modification, and/or deletion. Administrators and operators can use these operations.**

**OrderDeliveries: Create, modify, delete, and execute a simultaneous asynchronous operation related to delivery data and its complete addition, modification, and/or deletion. Administrators and operators can use these operations.**

These are all asynchronous operations that can be performed and for which tables and with which rights. With them, you can do a lot of work on different tables, making huge changes in as fast a time as the technique and equipment you have allows, and in this way, if you don't have enough time to manipulate the data one by one, you can save for later and manipulate them later at the same time and scale as is the purpose of these operations without your other work getting blocked because of waiting for one and/or another operation. That way you'll be able to catch up if you're running late and quickly get a huge amount of manipulation of any type into the system and you'll be able to cope with the huge amount of work you'll always have in management, and as you know, no matter how high up you go , in the more places and for the more people you will be responsible for, and as if someone is slow, the delay can be compensated by the simultaneous operations so that for each table one by one many operations can be performed at the same time and so the information behaves up-to-date for everyone to see, and that's why these operations are just as important as regular operations that run one at a time, block, and only get to one field at a time, and that's why the huge reload of data every time after performing any operation, whether a simple or concurrent asynchronous operation, the operations will be able to be performed as they are done and according to your rights and you will be able to facilitate your work and the work of others, and whether you will use them or not is your decision and YOUR RESPONSIBILITY!!!

### CREATE REPORTS:

The program reports are generated from the main operation panels by clicking the GENERATE REPORT button of the software and depending on the language of the software and whether the report files themselves are in its correct folder as you can change the location of the folder and have to move the files and the report file naming convention should be [Report name as written in the corresponding value in the application's app.config].[language code as written in the "current\_culture" value in the application's app.config ].rdlc will otherwise give you a huge error and won't work no matter how hard you try. Keeping this in mind is critical because database views are the only way to create reports that show as much important information as possible. If you wonder why the reports are so ugly, it is because I made them with my ugly hands and my ugly soul and they are my design, but the beauty is not the most important thing, what is important is the information they show in some tables of the information system has the ability to display two types of reports and you will see this by using the program and reading more about this program in the documentation. Reports are important whether they will be confidential within the company or for external use such as invoices to be given to clients and for this reason do not forget to create reports whenever necessary and not even when necessary but in principle always to keep records of data changes over the years and find your way if you can't read the data in the software or in the database logs, so you'll have an even better way to keep your company's information safe and find your way when you need it get so you can see what changes there have been in your company over the years for everything and so you can keep reports, statistics and whatever (I wanted to put statistics in all views too, but the system was becoming unstable due to the incorrect my deployment of these stats and had to remove them as seen in the database charts at the end) and be able to see the full picture of everything going on. Reports are another way to stay on top of things, so DON'T FORGET THEM!!!

**Users:**

**Report Name: The two reports are EmployeeReport for any information system operator and ClientReport for each client enrolled in the information system.**

**Function: Generates the complete data for each user in the database and displays the information much better than it is in the tables in the database and is STRICTLY CONFIDENTIAL and suitable for use inside the company, not for public display due to company laws and laws for GDPR privacy!**

**Product Brands:**

**Report Name: ProductBrandReport**

**Function: Generates the full data for each brand of product in the database and displays as much as possible from the already small amount of data in the information system database to see which brand is for where and as always this report is STRICTLY CONFIDENTIAL and not it should not be displayed anywhere in order not to leak information that is needed by the company and not to disturb its confidentiality and policy.**

**ProductVendors:**

**Report Name: ProductVendorReport**

**Function: Generates the complete data for each supplier of a product in the database and displays as much information as possible from the scant information that there is at all about the suppliers in this information system, but it is no less important than the other reports because it displays information that you may need it in the future and as always this report is STRICTLY CONFIDENTIAL and should not be shown anywhere outside the company because the leak of such information can endanger your company and bring you down BECAUSE YOU'RE DRAWING YOUR OWN CONCLUSIONS!!!**

**PaymentMethods:**

**Report Name: PaymentMethodReport**

**Function: Generates the complete data of each payment method recorded in the database of an information system, however sparse the information about them in it, they provide a good view of the data of the payment methods even if much more data and statistics could be present, but there's no one to blame but me no matter how much Internet and AI help I got. THIS REPORT IS STRICTLY CONFIDENTIAL AND ANY DISPLAY OUTSIDE YOUR COMPANY COULD CAUSE HUGE IRREVOCABLE CONSEQUENCES AND LEAD TO BANKRUPTCY SO BEWARE!!!**

**Delivery Services:**

**Report Name: DeliveryServiceReport**

**Function: Generates the complete data for every delivery service entered in the information system database no matter how scanty and little information there is, and the reports could generate much more information than they generate now and that is why this report is important and like the reports before, it is CONFIDENTIAL AND SHOULD BE KEPT WITHIN THE COMPANY ONLY SO YOU DON'T GET DOWN!!!!**

**Products:**

**Report Name: ProductReport**

**Function: Generates the complete data for any product recorded in the information system database, combining the data from as many tables as possible to show the complete picture and the most detailed information possible in the product report. Unlike the previous reports, this report shows extensive information and because of the huge amount of information, this report is STRICTLY CONFIDENTIAL and any disclosure of it outside of its boundaries within the company will harm you and you know it best if you have worked and developed businesses independently whether in the field or from a distance. YOU HAVE BEEN WARNED!!!!**

**ProductOrders:**

**Report name: two reports, ProductOrderReport for full order report and ProductOrderInvoiceReport for order invoices**

**Feature: Generates order reports depending on what it is about giving you the choice to make an order invoice report and give it to your customers or make a full order report showing detailed information from to for each order and details , collecting as much as possible from each table to have it. The invoices were made after a design that I had seen from the receipts and gave the part that was needed for them, while the order detail reports were created to show absolutely everything about the orders from the database and not just from one, but from all related tables with products, orders and other things in the tables. In this way, the complete picture is presented for each order, how it was executed and in general what can be done and what happened during its execution and its manipulation in any way even without any other statistics and data than those in the table. The invoice can be given to the clients, however the full report is STRICTLY CONFIDENTIAL and if it gets out anywhere it will be seen and you won't be able to get yourself, your co-workers and your company out of the hole you're in.**

**OrderDeliveries:**

**Report Name: Two reports, OrderDeliveryReport for full order delivery report and OrderDeliveryInvoiceReport for order delivery invoices.**

**Function: Creates both delivery invoices to be given to customers on orders and a full detailed report showing the full picture of the delivery and the order to it and taking data from any possible table that may have information about everything, representing it faithfully and assembling the data in all other tables as a whole. This will show you the absolutely complete picture of everything that is happening and will give you the opportunity to make complete archives of everything that is happening in your company to consult, review and not make mistakes. You have the choice to make an invoice that has enough information for customers to see, as well as a full report of everything, showing absolutely everything from all the details of the delivery and its order without exception. BE CAREFUL WHO YOU GIVE THE FULL REPORT TO AS UNLIKE THE INVOICE IT IS STRICTLY CONFIDENTIAL AND ON KEEPING IT CONFIDENTIAL IT DEPENDS ON HOW SAFE YOUR COMPANY DATA WILL BE KEPT AND WHETHER YOUR COMPANY WILL SUCCEED OR NOT!!!!**

**CONCLUSION:**

However little or how much information there is in all the reports listed, they are important, and most of them are made to be kept within the company and not to be taken absolutely anywhere outside of it, so be aware of how you use them and what you do, because as the database logs and other ways of information this system gives you ARE IMPORTANT TOO!!!

### PROGRAM SETTINGS

The program settings are one of the most important things in this information system, as you may have guessed from the installation instructions of the information system itself, so here they will be described and explained in as much detail as possible to understand how to install the program first and install the database too if you have read the installation instructions so you know which setting is for what and there are many settings allowing for huge customization and expansion of the program and again I will warn here: ONLY CHANGE THESE SETTINGS IF YOU KNOW WHAT TO CHANGE OTHERWISE YOU CAN GET A LOT OF TROUBLE ON YOUR HEAD AND FOR NOW THIS ENTIRE INFORMATION SYSTEM IS MANUALLY INSTALLED AND RECOMMENDED BY SYSTEM ADMINISTRATORS!!!!!

So, let's get started:

**DOMAIN – this is the address of the server to which the information system will connect to its database in order to be able to do its work and manipulate its information. It can be either the public domain of a website or the address of the server on the company's local network to which all other computers connected to it on the company network will connect. For the server computer, make sure to have MICROSOFT SQL SERVER 2022 or higher version installed, as the information system is tested on this version and lower versions than this are sure to cause problems in general throughout the database. In order for everyone to connect to you, you must also configure the server to accept and send connections on port 1433 for TCP and port 1434 for UDP, and configure SQL Server to accept TCP connections in general so that the information system can connect to the database, otherwise, even if you are on the same computer, you will not be able to connect. I also had this problem, but I fixed it when I developed other programs similar to this one. By default, the value is localhost, which indicates that the information system is connecting to the local server of the computer it is running on, so change it if you want one computer to be a server and the other computers to connect to it, which you will do for for the software to run and connect to the database from all computers on the local network or in the domain you are on!!! Name in app.config: “domain”**

**DATABASE NAME: This is the exact name of the database as you have made it in your server database and if you have changed anything in the database script such as its name put the same name that is in the script I have provided in software settings, otherwise you won't be able to connect, and most likely you'll be connecting to the master database, which is the default database for SQL Server, and won't be able to use anything that this information system is made to provide, or at all won't connect you by showing you a connection error even from your own server computer so be careful what you put in when you change the database name so you can finally connect successfully and do what you need to in the database and secure the connections and other operators to it, allowing them to fully work with the information system as far as their rights in it allow. Name in app.config: “dbname”**

**DATABASE USER: This is the username to connect to the database, it may initially be that of the sysadmin of the database server for the initial connection, but if you are adding users to the database add them to both the information system user table and in the database user list and in the server login list and if you have read the previous chapters you will see why this is important for information system login and MUST NOT BE IGNORED!!!! If you have done everything correctly in installing the database and creating a system administrator and administrator users to log in and test everything, you will know how to add user data to the information system database and add any of them as a default user so that you can log in and work with an information system to the extent permitted by your rights in the information system. SPELL USERNAME CORRECTLY OR IT WILL NOT WORK!!!Name in app.config: “dbuser”**

**DATABASE PASSWORD: This is the password for the user name as you entered it in the database tables of the information system and as a user in the server login database. Without a password the connection will not be secure and this is important to identify the users in the information system and what role they are and this allows multi-factor authentication in it as usernames and passwords are used to give access to the server and the login trigger if on it checks if the same usernames and passwords are entered in the information system user table and if their number is greater than 0 because -1 is an invalid number in any table and it is with sample data and there is no exception for this and if there is it lets us in, otherwise it doesn't let anyone in even if it's a sysadmin so you know it's a no-compromise anti-breach solution so you know and also the software checks the same way if it's connected to the database if it is in the user table and if you are with operator role (0 for administrator and 1 for regular operator) it will let you work, otherwise if you are a customer (role 2) or if you have no data in the user table in the database and in the database itself and the server will not let you in and will kick you out, as this information system is mostly BUSINESS-ADMINISTRATIVE!!!! Also WRITE THE PASSWORD FOR THE CORRESPONDING USERNAME AS IN THE SERVER LOGIN TABLE AND LIST BECAUSE EVERYTHING IS VALIDATED AND DUPLICATE USERNAMES AND PASSWORDS ARE STRICTLY PROHIBITED!!! Name in app.config: “dbpassword”**

**COMPANY NAME: This is your company name and if you don't save it in the software settings it won't show up on the reports and you won't be able to verify that the orders are from your company and it can become a huge misunderstanding with everything so put the same company name on every copy of the program and in every computer that uses it, one by one, it may be difficult, but it is important to know that YOU MADE THESE REPORTS AND THEY ARE FOR YOUR COMPANY AND YOUR BUSINESS AND TO ALL WHO PARTICIPATE IN IT AND NOT TO SOMEONE ELSE OR A FOREIGN FIRM, COMPANY AND/OR BUSINESS!!! Through this, you will be able to identify and distinguish the reports that are yours from those provided by other companies and group them as necessary to know everything that is happening with your company and to know whose company owns these reports. When you put this, even if there are no special rules for reports, there will be no other way to prove the validity and that you created these reports if you don't put your company name in the settings of this software, so BE AWARE AND REMEMBER!!Name in app.config: “company\_name”**

**LANGUAGE: This is the language in which you will see everything in the software except the database messages and what currently makes it unstable for development and design change at the current time because the design code itself is changed, and such a practice it can be very dangerous if you don't know what you're doing and you can break a lot of things in general in the program and in the whole program code in general, so better put things as defaults and add as datalinks instead of the stupid thing I did with the resource files and the languages ​​in my case. The finding of the report files also depends on this, since the code of the language of the program must be included in the report files, so be careful how you name the localized report files that you make so that the program can find them. otherwise you will not be able to generate reports if you switch languages. The settings menu shows the display name of the language, and in the settings file, app.config, is the language code itself, and this is managed by its own class, similar to the CultureInfo class, but much simpler, and I'll explain the differences and between the native Language class along with the LanguageManager that manages it. Unlike CultureInfo, the Language class has only two variables that identify all languages ​​and are inserted and removed without serialization in the software's Language.xml file either manually or through settings, but if you haven't put in localized resource files and recompiled the program as is and language you have selected will not work, and this will be changed in the next version of the program when this class and the LanguageManager class will be extended and adapted to take the language data in a different way without having to compile the program every time you want to add a new language both in it and everywhere else. In newer versions if I continue to develop it I will fix this problem but it will take me more months from development to now and not only me but YOU too! Relationships between Language and CultureInfo:LanguageName – CultureDisplayName – the name, with which the language is displayed, for example EnglishLanguageCode - CultureName - the code of the language it is known by in the .NET standard, for example en and en-US and en-GB There are language and culture choices in the settings menu that you can add and remove via ADD LANGUAGE and REMOVE LANGUAGE and search for culture via SEARCH CULTURE INFO and by language name or culture display name Name in app.config: “current\_culture”**

**REPORT DIRECTORY: This is the directory in the file system that the report files are taken from and if you make localized copies of them put them in the folder set in this setting otherwise it won't find them and create reports or if you change you must move all report files from the old folder to the new folder so that the program can find, read and create them, this is important and is done so that you can also modify the reports according to what you need, but all the pre-created reports of information system are there because they matter and without them one part or another won't work and will give you errors, and only change the report load folder if you know where it's safer to put the reports than in the program folder itself. THIS IS IMPORTANT BECAUSE YOU CHANGE ANYTHING!!!!Name in app.config: “report\_directory”**

**SAVED LOGINS DIRECTORY: This is the folder where all the logins you used to login to the database via serialization/deserialization in binary format (BIN files) will be saved and loaded from so that you can login with them instantly when needed and when not instead of having to write them all the time and the problem with this version of the program is that for now it can only save and/or load to the file system but not delete them from it and whenever you change this folder you will have to re-enter all the user data you have saved or at least move the files for them to the new folder to have them again instead of having to re-save them when changing this folder, and the login data itself as are downloaded from the database can be added to the file system and set as the default login data in the software from the first window you will see when you open it, namely LOGIN or as it is there in the other language and the buttons are as follows :LOGIN – to confirm the login and log in to the system EXIT – to exit the system SET CURRENT LOGIN AS DEFAULT – sets the current login data as the login data of the program itself, see DATABASE USER and DATABASE PASSWORDADD LOGIN – adds login data to the list in memory , and when logged in correctly they are saved to the file system REMOVE LOGIN - removes login data from the list in memory but not from the file system This will allow you to quickly and easily log in and/or log out and choose where to save your data to login by selecting a folder via the BROWSE button and the dialog or by copying the folder from the address bar in Explorer, something I doubt you can do and the same can be done with the reports folder, see REPORT DIRECTORY. Name in app.config: “saved\_logins\_directory "**

**EMPLOYEE REPORT NAME: This is the name of the report file that is for users who are administrators or simple operators in the information system database and if not present in the report folder as follows: [The name of the report as recorded in this setting].[Language code as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: EmployeeReport.en-US.rdlc, this file will work if the name of the report in this setting is EmployeeReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “emp\_report\_name”**

**CLIENT REPORT NAME: This is the name of the report file that is for users who are clients in the information system database and if not found in the report folder as follows: [Report name as recorded in this setting]. [Language code as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: ClientReport.en-US.rdlc, this file will work if the name of the report in this setting is ClientReport, and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “cl\_report\_name”**

**PRODUCT BRAND REPORT NAME: This is the file name for reports that are for product brands recorded in the information system database and if not present in the report folder as follows: [Report name as recorded in this setting] .[Language code as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: ProductBrandReport.en-US.rdlc, this file will work if the name of the report in this setting is ProductBrandReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “pb\_report\_name”**

**PRODUCT VENDOR REPORT NAME: This is the file name for reports that are for product vendors recorded in the information system database and if not present in the report folder as follows: [Report name as recorded in this setting] .[Language code as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: ProductVendorReport.en-US.rdlc, this file will work if the name of the report in this setting is ProductVendorReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “pv\_report\_name”**

**PAYMENT METHOD REPORT NAME: This is the file name for reports that are for payment methods saved in the information system database and if not present in the report folder as follows: [Report name as saved in this setting] .[Language code as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: PaymentMethodReport.en-US.rdlc, this file will work if the name of the report in this setting is PaymentMethodReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “pm\_report\_name”**

**DELIVERY SERVICE REPORT NAME: This is the file name for reports that are for delivery services recorded in the information system database and if not present in the report folder as follows: [Report name as recorded in this setting] .[Language code as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: DeliveryServiceReport.en-US.rdlc, this file will work if the name of the report in this setting is DeliveryServiceReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “ds\_report\_name”**

**PRODUCT REPORT NAME: This is the name of the file for reports that are for products saved in the information system database and if not found in the report folder as follows: [Report name as written in this setting].[Code in the language as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: ProductReport.en-US.rdlc, this file will work if the name of the report in this setting is ProductReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “p\_report\_name”**

**PRODUCT ORDER REPORT NAME: This is the file name for reports that are for orders recorded in the information system database and if not present in the reports folder as follows: [Report name as recorded in this setting].[ The language code as written in the LANGUAGE].rdlc setting would otherwise not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, could not be created. Here is an example: ProductOrderReport.en-US.rdlc, this file will work if the name of the report in this setting is ProductOrderReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “po\_report\_name”**

**PRODUCT ORDER INVOICE REPORT NAME: This is the file name for invoices that are for orders recorded in the information system database and if not present in the report folder as follows: [Report name as recorded in this setting]. [Language code as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: ProductOrderInvoiceReport.en-US.rdlc, this file will work if the name of the report in this setting is ProductOrderInvoiceReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hard coded in the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “poi\_report\_name”**

**ORDER DELIVERY REPORT NAME: This is the file name for reports that are for deliveries recorded in the information system database and if not present in the report folder as follows: [Report name as recorded in this setting].[ The language code as written in the LANGUAGE].rdlc setting would otherwise not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, could not be created. Here is an example: OrderDeliveryReport.en-US.rdlc, this file will work if the name of the report in this setting is OrderDeliveryReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “od\_report\_name”**

**ORDER DELIVERY INVOICE REPORT NAME: This is the file name for invoices that are for deliveries recorded in the information system database and if not present in the report folder as follows: [Report name as recorded in this setting]. [Language code as recorded in the LANGUAGE].rdlc setting, otherwise it will not be found and therefore reports for users with these two roles, administrators and regular operators, i.e. workers, will not be able to be created. Here is an example: OrderDeliveryInvoiceReport.en-US.rdlc, this file will work if the name of the report in this setting is OrderDeliveryInvoiceReport and it will work if the language code of this program in LANGUAGE or “current\_culture” in app.config is en-US, otherwise it won't find it if it doesn't have such a naming convention. This convention is hardcoded into the program and cannot be changed so GET USED TO IT WHEN SETTING UP!!!!Name in app.config: “odi\_report\_name”**

**THESE ARE ALL THE SETTINGS YOU CAN TOUCH, SO ONLY TOUCH THEM IF YOU KNOW WHAT THEY ARE FOR AND I HOPE I HAVE EXPLAINED THEM WELL ENOUGH SO YOU KNOW WHAT TO DO WHEN YOU SET THIS INFO SYSTEM DONE AND FOR BUSINESS-ADMINISTRATION ACCORDING TO YOUR NEEDS. ONLY TAP WHERE YOU KNOW OTHERWISE NO, THIS IS THE SAFEST WAY TO SET UP WHETHER THROUGH THE APP SETTINGS OR EDITING app.config MANUALLY SO SMART!!!**

### **USER PROFILE SETTINGS:**

This information system allows you as operators of the software part to change your user profile data in the system with certain exceptions and if help from the system administrators if necessary to be able to re-enter the information system the next time after making the relevant changes. This also ensures your security as no one except your colleagues and those in the company will know about your user profile, but this is to help you when needed and any malicious changes to the user profile will be punished and sanctioned according to the policy of your company. If you are an ordinary operator, you have the right to change only the data for your user profile, and for the purpose of data protection and correctness after registration, some things cannot be changed, but others can and you will be able to change them freely as far as the software part of this information system allows you. When we talk about a user profile in this program, we mean YOUR user data, not someone else's user data as was the case with the USERS table in the two sections for the operations that were earlier and were for editing data. By changing your profile you can correct if something is wrong and you will be able to enter additional information if necessary and if required, so even if the change is limited it will allow you to do what you need to do if you have submitted wrong information or all the information could not be entered during registration, so whatever you can edit from your data, edit it in time so that the data about you is correct for you, your colleagues and your customers and to maintain your correctness in general , but allows you, on the other hand, to be independent in changing data about yourself in this information system as far as possible and for some fields of your user data, which depending on your role may or may not be necessary, yes you show creativity in case they are not needed. Everything that can be changed will be listed here, so BE CAREFUL AND READ TO KNOW WHICH FIELD OF YOUR USER DATA IS WHAT AND KNOW WHAT TO CHANGE!!!!!

**USERNAME – this is your username that you will log into the information system with every time and go through the rough multi-factor authentication to prove that YOU are logging in and not someone else and to prevent unauthorized access from the outside to the information system system, which is very likely, but the protection can be improved. USERNAMES CANNOT BE DUPLICATED AND THIS IS IN THE SYSTEM SO THAT THERE CAN BE GREATER SECURITY EVERYWHERE AND YOU KNOW WHO IS LOGGING IN WITH WHAT DATA!!!**

**PASSWORD – this is your password that you will use to log into an information system every time and go through the rough multi-factor authentication to prove that YOU are logging in and not someone else and to prevent unauthorized access from the outside into the information system , which is very likely, but the defense could be improved. PASSWORDS CANNOT BE DUPLICATED AND THIS IS IN THE SYSTEM SO THAT THERE CAN BE GREATER SECURITY EVERYWHERE AND YOU KNOW WHO IS LOGGING IN WITH WHAT DATA!!!!**

**DISPLAY NAME – this is your display name by which you will be seen everywhere by your colleagues, whether operators or administrators, and according to company policy it will either be strictly your own name or any other name that the company allows, but it is recommended that it be your own name, after all, you are at work, this information system is for work and business administration, and too much creativity is not very pleasant for your reputation, nor for your colleagues and your whole company, but You know better.**

**PHONE – this is your phone that your colleagues will use to contact you in the company you work for and/or lead, and that the company's customers will contact for order inquiries and/or feedback, and for working in businesses, whether field or remote, contact both between the team and between the company and the customers is of HUGE IMPORTANCE SO GIVE A NUMBER WHO CAN BE CALLED IF NEEDED AND WHO CAN BE CALLED BACK FROM IF NEEDED!!!**

**EMAIL – this is your email address that your colleagues will use to contact you at the company you work for and/or lead, and that the company's customers will contact for order inquiries and/or feedback, and for working in businesses, whether in the field or remotely, contact both between the team and between the company and the customers is of HUGE IMPORTANCE SO GIVE AN EMAIL ADDRESS THAT YOU CAN WRITE TO IF NEEDED AND FROM WHICH YOU CAN WRITE AGAIN IF NEEDED!! !**

**ADDRESS – This is your ID location address where if you are an operator they can look you up when you have done something wrong and your address of a location where the drugs and/or other pharmaceuticals will be delivered if you cannot buy them at place and/or ordered them online if possible, and this can be added further in this information system. This address is important in any case, so draw your own conclusions and the decision whether to give it or not is yours, as well as your responsibility to the company you work for and/or lead.**

**PROFILE PICTURE – This is your user profile picture and will be viewable by you and the administrators in the information system. You can put whatever you want as a profile picture and it will be encoded and decoded directly from and into binary in the database, but if you are going to work it would be advisable to have your own face for the profile picture, not as I have done with the examples data when I drooled and tested this information system. If you want to be serious and/or your company to be serious put your face and/or company logo instead of bullshit, it will show that YOU ARE SERIOUS AND THIS APPLIES TO ME TOO!!!**

**DIAGNOSE - this is your diagnosis, according to which you will be given and recommended drugs for the diseases you have to be cured when you are a customer of any company and it is not mandatory for the operators to fill it in, but it is important to know when buying and/or prescribing drugs so if you are a customer PUT YOUR CORRECT DIAGNOSIS IF YOU REGISTER ONLINE AND/OR TELL THE OPERATORS YOUR CORRECT DIAGNOSIS SO THERE ARE NO MISTAKES!!!Also as an operator of course if not of course you can write some nonsense in this field and/or leave it blank, but others will see so it's not highly recommended to do so, so BE SMART WHEN WORKING WITH THIS INFORMATION SYSTEM!!!**

**ALSO, WHEN YOU CHANGE YOUR USER DETAILS YOU WILL HAVE A HELPFUL MESSAGE IN WHICH YOU CAN SEE WHAT TO DO SO YOU DON'T GET CONFUSED AS I WOULD EVEN IF I KNOW THE INFORMATION SYSTEM AND IF YOU CHANGE YOUR USERNAME AND/OR PASSWORD YOU WILL HAVE TO ASK THE ADMINISTRATORS OF SERVER TO CHANGE THEM IN YOUR SERVER AND DATABASE!!! YOUR PERSONAL INFORMATION IS IMPORTANT SO BE CAREFUL!!!**

### SOFTWARE TESTING TOOLS:

I have a bit to write about this, but I have left two tools that can help you if something goes wrong or test the potential of the information system software to know what you are dealing with and/or reconnect to the database if something went wrong during your work. Later on, more testing tools may be added by both you and me so that this information system can be improved daily and/or as you make your own version of it for your work with things I've missed and , of course, utilities. This will be short but helpful SO READ!!!

**TEST CONNECTION – checks if the connection from the information system software to its database is working and if not reconnects and displays messages if the connection is successful and/or if you cannot connect (then if you cannot connect to the database no to be able to log in and you will need to shut down the software and check its settings and the settings of the server you are connecting to). If the connection, even a persistent one, is lost in one case or another, what I have left as a reconnection hack can help you a lot, as no software window will load if there is no persistent connection between the software of the information system and its database, and this information system in its infrastructure is made so that the software and its database are in constant communication during operation.**

**IMAGE TO BINARY CONVERTER - this tool has no other purpose than to test how fast a bitmap can be converted to binary and base64 format and vice versa and can show your machine's computing capacity in this regard and will also show how fast you will be able to upload images to the information system database and how long you will be able to download them. This is not required to be used, just use it as a toy and to test the machine if you want, BUT NO MATTER HOW SLOW IT IS DO NOT NEGLECT YOUR WORK!!!**

**CONCLUSION ON THE TEST TOOLS: The test tools, especially the one for the connection can be your salvation and a chance to continue your work with the information system, and if there are problems in the connection to restore it quickly, and for the conversion of images to binary format and base64 format and vice versa, it's just left for you to test it whenever you want and you don't have to use it unlike the testing hack and you can use these testing tools whenever you want and need while working with this information system.**

### LICENSE:

This is very important to know in order to know how to use, distribute and/or continue to develop the information system either as your own version of it, or to continue where I left off since the way I did it I have no interest keep it for myself and/or make something out of it. THIS INFORMATION SYSTEM IS OPEN SOURCE AND YOU WILL SEE WHY AT THE END!!

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### CONCLUSION AND CONCLUSIONS:

**This information system is far from perfect, it is only made for administration and for you to work on it, its user interface is BRUTALLY HARD to learn and the security is low, mostly checking the user data in its tables, but not and provide encryption of the data in the database or authentication in other ways of confirmation, but this is its state for now, it is tested and works in its current state to take your soul and help you with work, for now it installs a lot difficult and is useful as a starter set of basic tools to use that will automatically calculate data bills for you as you deal with customers and if you see that something needs to be done with your confirmation, eg prepaid, paid on delivery but unfulfilled or direct paid order to put as complete just put it and done and the same with deliveries as they sync and also you can generate as many reports as possible and I am guilty of their bad and A BRUTAL design with which you will know that it belongs to your company and which both you and your colleagues will be able to do when you work so that you can distribute your load well when you work in your business and when you work in a foreign business with this information system . This system as an angel of death in itself shows the potential of the symbiosis between man and machine in the execution of work and also shows the responsibility that is needed to be able to have a proper use and a good development and that was my covenant and the little and the much, what I could do to make this system work for me and YOU!!! IT MAY BE SLOW, MAY NOT ALWAYS GENERATE REPORTS, MAY ONLY REQUIRE HIGH RESOLUTION MONITORS, BUT IT WILL HELP YOU AND WITH ITS OPEN LICENSE, YOU CAN DEVELOP IT TO YOUR NEEDS AND E YOU ARE CALLING MORE BRUTALLY USEFUL THINGS ACCORDING TO YOUR BUSINESS NEEDS FROM SECURITY AND CORRECT DATA CALCULATION AT ALL TIMES!!! WHAT I HAVE MANAGED TO ADD IS THE BASIC AND MANY THINGS CAN BE ADDED ON EACH SIDE DEPENDING ON WHAT YOU STILL NEED AND I HAVE ONLY ADDED THE BASIC AND THE COST OF THE DEVELOPMENT AND USE IS THE SOUL OF EVERYONE WHO USES IT VAT AND DEVELOPING , For both me and you will give part of your soul and dear and dearly to your work and if you want for this information system and so part of your soul will be in it just as mine, so I call what I created BOTH A DEMON AND AN ANGEL OF DEATH, BECAUSE IT HAS A PART OF MY BLACK AND UGLY SOUL AND SINCE, UNLIKE MY OTHER CREATIONS, IT WORKS AND GIVES WHAT BOTH ME AND YOU NEED, SO IT HAS POTENTIAL AND IS WORTH EVERY BLOOD, ALL THE SWEAT, ALL THE TIME AND ALL THE MIND VOID THAT YOU CAN GO THROUGH TO ACHIEVE THE DESIRED FUNCTIONS. BASIC FUNCTIONS EVEN SLOW DUE TO CONSTANT RELOADING LEADING TO BLOCKAGE ARE THE BASIS, BRAIN AND MUSCLES OF THIS INFORMATION SYSTEM,WHICH ALLOW YOU TO MANIPULATE THE DATA TO THE SMALLEST DETAIL AND AT THE SAME TIME CALCULATES SOME OF IT FOR YOU, NO MATTER HOW UGLY A USER INTERFACE YOU ARE DEALING WITH, THEY WILL ENSURE SAFETY WHILE DOING IT BUT ALSO ACCURATE CALCULATION OF DATA DURING THEIR MANIPULATION AND GENERATION OF REPORTS WITH THE NAME OF YOUR COMPANY AS RECORDED IN THE INFORMATION SYSTEM AND THE NAME OF THE INFORMATION SYSTEM ITSELF WITH WHICH THEY ARE GENERATED TO CONFIRM THAT YOU CREATED THEM AND THAT YOU CREATED THEM WITH THAT INFORMATION SYSTEM THE SIMULTANEOUS OPERATIONS EVEN DEMAND HOW MUCH MAYBE MORE PROCESSOR CORE AND/OR PROCESSORS TO RUN FAST WILL MAKE IT EASIER IF YOU ARE OVERWHELMED AND YOU CAN EDIT THE CODE TO ADD A NEW ASYNCHRONIZATION EACH TIME YOU ADD A TABLE TO THIS DATABASE ONNA SURGERY FOR HER AND EVERYTHING OPERATIONS AND TARGETS ARE GUARANTEED TO CHANGE BOTH SIMULTANEOUSLY AND INDIVIDUALLY CHANGING ONLY WHAT YOU WANT AND RUN AUTOMATICALLY CLEANS UP OPERATIONS AND SHOWS RAW BUT ENOUGH TO EXPLAIN EXECUTION LOGS THE NENION OF THESE OPERATIONS TO BE EVEN CALLED WITH A ROUGH DESIGN THAT WILL ACCOMPANY YOU WHILE YOU WORK WITH THE SOFTWARE THROUGHOUT THE ROLE DENCONTROL ENSURES SECURE ACCESS AND KNOWING YOUR PLACE ON WHAT YOU CAN AND CANNOT WORK ON ROLE DEPENDENCE IS IN THE INFORMATION SYSTEM SO THAT THE DATA CAN BE ACCESSED IS PROTECTED AND RESTRICTED ACCORDING TO THE ROLE AND TO PREVENT ANY SCAMMING BY YOU OR YOUR COLLEAGUES IF SOMEONE ACCIDENTALLY GOES TO DO SOMETHING WITH MALICIOUS PURPOSES THROUGH THIS POTENTIAL INFORMATION SYSTEM, RA BOT AND JUST WORK!!!! THE FUCK OF THE DESIGN, WHEN I DEVELOPED IT, IT WAS IMPORTANT THAT IT WORKED, NOT BEAUTIFUL AND/OR YOU LIKE WITH "NICE AND MODERN" WINDOWS LIKE MOST DEVELOPERS DO, FUNCTIONALITY WAS A PRIORITY BEFORE DESIGN, BECAUSE I AM MYSELF IL BEFORE COMPLEX DESIGNS!! THE ROLES ARE HARDCODED IN BOTH THE DATABASE AND THE INFORMATION SYSTEM SOFTWARE BECAUSE THIS SYSTEM IS DIFFICULT TO LAY OUT AS THEY VERIFY THEM AT EVERY STEP YOU LOGIN!!! DIRECTLY IN THE DATABASE WITH USER INFORMATION ALLOWS CORRECT DATABASE LOGIN AND GRANTING RIGHTS ACCORDING TO USER INFORMATION SYSTEM AND GIVING THEIR ROLES IN ADVANCE BY SERVER ADMINISTRATORS ENSURES CORRECT ACCESS AND REQUIRES HUGE RESPONSIBILITY FROM THE SERVER THE ADMINISTRATORS ON HOW THIS INFORMATION SYSTEM IS USED AND HOW NOT TO IT ALLOWS NO USER EVEN A SYSTEM ADMINISTRATOR TO LOGIN IF THEY ARE NOT RECORDED IN THE DATABASE TABLE AND THIS IS VERIFIED BY BOTH THE DATABASE AND THE SOFTWARE AND ONLY CERTAIN ROLES ARE ALLOWED SPECIFICALLY IN THE SOFTWARE AS DIFFERENT FROM THE DATABASE ATA DATA ,THE SOFTWARE IS MADE TO BE USED BY OPERATORS ONLY AND THERE ARE MUCH MORE STRICT RULES IN THE CODE THAN THAT IN THE DATABASE, AND SAVING AND LOADING DATA FOR INPUT EVEN GIVES A SECURITY PROBLEM ZO LOGIN NO EXTRA REMEMBERING USERNAME AND/OR PASSWORD NOT EVEN ACTUALLY DELETED FROM THE FILE SYSTEM NOW!!THE PROGRAM SETTINGS ARE MADE TO COMPLETELY CUSTOMIZE WHAT IS WHERE AND WHAT IS ON AND REQUIRES YOU TO REALLY KNOW WHAT YOU ARE DOING FOR SET IT RIGHT AND NOT ONLY TO SCREW YOURSELF, BUT TO ALLOW THEM TO ALLOW YOU AS MUCH CUSTOMIZATION AND EXPANSION AS POSSIBLE FOR ALMOST EVERYTHING FOR NOW AS THEY STILL NEED A LOT OF WORK ON THE LOCALIZATION AND LOADING AND TRANSLATION SYSTEMS OFTUERA IN OTHER LANGUAGES WITHOUT CONSTANTLY COMPILING TO DO THIS!!! LATER I WILL ADD MORE SECURITY RELATED SETTINGS BOTH IN THE DATABASE AND IN THE APPLICATION TO THE BAD DESIGN, BUT IF NOT I, YOU CAN DO THAT AS THIS INFORMATION SYSTEM IS OPEN SOURCE THAT I AM NOT I WROTE THE CODE MYSELF AND THE SYSTEM ITSELF WAS MADE AS A UNIVERSITY PROJECT AND I LEARNED A LOT OF THINGS MYSELF WHILE I WAS PROGRAMMING AND USED THE HELP OF THE INTERNET AND ARTIFICIAL INTELLIGENCE SO YOU CAN IMPROVE IT AND MAKE NEW SETTINGS IF YOU KNOW THEY WHAT TO DEVELOP IN HER!!!LOCALIZATION ALLOWS THIS PROGRAM TO BE TRANSLATED INTO DIFFERENT LANGUAGES BY COMPILING EACH TIME TO ADD RESOURCES FOR LANGUAGES, BUT THIS COULD BE IMPROVED BY DOING IT BETTER AND NOT FORCING TO ALWAYS HAVE A COMPILATION TO THERE ARE DIFFERENT LANGUAGES CHANGING YOUR USER DATA ALLOWS YOU TO EDIT AND ALWAYS BE CORRECT WITH YOUR DATA AND IF SOMETHING IS WRONG YOU CAN FIX IT IF YOU COULDN'T FIX IT. THIS WAY YOU WILL BE ABLE TO UPDATE YOUR PROFILE INFORMATION WITHOUT CONSTANTLY ASKING OTHERS TO CHANGE IT FOR YOU, BUT IF YOU WANT TO CHANGE YOUR USERNAME AND/OR PASSWORD YOU WILL HAVE TO WAIT FOR CONFIRMATION FROM A SYSTEM ADMINISTRATOR FERTILIZER BEFORE YOU ENTER AGAIN! !!!THE DATABASE LOGS SHOW ROUGH INFORMATION ABOUT ANY DATA MANIPULATION SO THAT YOU CAN ALWAYS BE AWARE OF WHAT IS HAPPENING AND THERE ARE NO ABUSE OF THEM ANYWHERE AND IF THERE ARE NECESSARY MEASURES AGAINST THEM TO MAINTAIN THE INTEGRITY ETC THE ALIDNESS OF ALWAYS KEEP THE INFORMATION AS WELL AS THE WORK YOU PUT AND IF THERE IS ANYTHING WRONG IT WILL BE FIXED WITH AN IRON FIST!!!! LOGS ARE ALWAYS USEFUL EVEN IF THE INFORMATION IN THEM IS DIFFICULT TO READ AND REQUIRES COMPARISON WITH DATABASE TABLES, BUT IT SHOWS AS MUCH AS THE ADDITION, CHANGE AND/OR DELETE OF DATA ALLOWS YOU TO GO THE FULL PICTURE OF WHAT IS HAPPENING AND TO ALWAYS KNOW WHAT TO DO WHEN YOU HAVE TO DO SOMETHING AND TO REACT AS FAST AS POSSIBLE BEFORE EVERYTHING IS GONE!!!AS A WHOLE, THIS INFORMATION SYSTEM SHOWS HOW I MADE THIS INFORMATION SYSTEM, WHAT I AIMED AND HOW I DID IT AND WHAT I WENT THROUGH TO DO IT AND I AM NOT THE ONLY ONE AS WELL AS MY COLLEAGUES WHO HAVE MANY MANY MANY MORE FOR YOURS WORKS FROM ME, I FINALLY MADE AN INFORMATION SYSTEM THAT WORKS TO GIVE INSTEAD OF JUST RECEIVING, THANK YOU FOR TRAINING ME, BUT LISTEN, DAMN IT, WE WILL WIN!!!! THIS AND THE OTHER THESIS THAT YOU HAVE RECEIVED WILL SHOW THE WORK, PERSISTENCY AND SACRIFICE OF EACH OF US AND THE STRIVE TOWARDS THE TOP AND TOWARDS THE SUN SO THAT YOU CAN SEE THAT IT IS NOT IN VAIN NO MATTER HOW HARD IT IS AT THE BEGINNING IT'S ALWAYS BRUTAL FOR ALL!!! WITH DEDICATION, PERSISTENCE AND CONCENTRATION NO MATTER WHAT WAY YOU CAN DEVELOP THE PROGRAMS YOU DEVELOP AND EVEN IF I HAVE TO BRUTALLY MANY MORE TIMES UNTIL I BECOME A PROFESSIONAL PROGRAMMER BUT THIS IS MY LITTLE GOOD COVENANT WITH ANGE LA OF DEATH I MADE TO FLY FREE AND TO HELP AND NOT JUST LIVE ON MY COMPUTER DRIVE AND COLLECT DUST LIKE MOST THINGS I HAVE! LET THE OTHERS WHO WANT TO PROGRAM DON'T GIVE UP AND KEEP FORWARD LIKE THE BRUTAL MACHINES THAT THEY ARE, BECAUSE FOR FIELD WORK AND FOR PROGRAMMING I HAVE CONVINCED THAT NERVES OF STEEL ARE REQUIRED AND NOT ONLY THERE KEEP FORWARD PROUD AND BRAVE!!!!**

### AUTHOR'S NOTES:

**The first month I was developing I hardly went out and I was most focused**

**If I hadn't listened to heavy metal while I was working, I wouldn't have done what I've done so far and I would have screwed everything up at the first stumble! \m/**

**Before enrolling in higher education I was interested in programming, but I was afraid to write a broken code and I didn't want to learn by myself, thank you for teaching me so many things**

**I was inspired by programs like NeoLogic, Shopify and CoreApps and their data automation to make this information system and thanks to those who gave me a chance to try working on at least 2 of these 3 information systems and learn how difficult it is this job, but also to get inspired to make my own devil you've read about so far!!!!**

**I've had blank days where my anger, being a bad advisor, would stop and rest until my mind cleared, but other times I'd use both my favorite music and my anger as motivation to finish my project by last as functions**

**There was a time when I did not sleep to get to what I have done now**

**I can't work in the field, but I wanted to make an information system that works both in the office and remotely, and that works for running a store as well as growing and dropshipping**

**My mother and father were pharmacists and that was also an inspiration for me to do this program, and such a business is important because it guarantees the life and health of people, including you!!!**

**The previous information systems and programs I've made have never gotten anywhere, never worked, and never amounted to anything, and I was ready to sell my soul, but to make this information system, and that's why this information system is ugly and evil like myself me, but it works and I think I accomplished my goal.**

**I used help from the internet and from ChatGPT, but I didn't ask for help from anyone, so again I made this devilish information system of my own design and bet on the functionality and on expanding and customizing it to the smallest detail, so smart using it. That's why I released it under the MIT license and made it open source, leaving it up to YOU ​​to develop and extend it as much as you want, the goal was to make it work and be as extensible as possible, and this time it has potential and it's worth it in my opinion, I don't know what you think and it will be seen when I get on the defense when the saw will be the law in your hands for me!**

**You may not like the (semi)official and personal tone I used, but I wanted to show you my work and explain it as comprehensively as possible and resound HIGHER THAN HELL when you read to understand!**

**I know that others who have worked on their projects have made much more sacrifices than me, although unlike me they work, but they have learned to withstand pressure better than me and one day I want to be like them and I can handle the pressure without drinking coffee cocktails for the job**

**Speaking of coffee shakes, and I've been drinking them since regular coffee has stopped working for me lately, here's a recipe for such a shake instead of slathering on energy drinks and overloading your body and putting in unnecessary chemistry and playing with health:**

**2 normal fast coffees**

**2 normal 3 in 1 instant coffees**

**2 diet 3 in 1 instant coffees**

**(If you are overweight and think that this energy is not enough for you) - 2 strong 3 in 1 fast coffees**

**If I hadn't had that coffee cocktail, this documentation would have been written more slowly and you wouldn't see it now, nor would the code for part of the program**

**There was a bug in the information system software that I hadn't seen at first, but yesterday when I was testing I saw where it happened and fixed it at the last minute between writing this documentation.**

**There was a time when I thought I had no soul and it had to do with a soul void and a mess in my head that I had and it wasn't to do with my desperation for program development even stopping me from writing code though even then the code was like writing itself by my hands while my mind was in inertia like most of the time, but I managed to overcome it and start giving after all I have been taking!**

**I've long called myself a lunatic as a middle name, and there's a reason for that.**

**Thank you once again for taking away my fear of writing code and programming and not only you but also my colleagues even though I wrote my own code and the code I found on the internet and from artificial intelligence.**

**Lately writing code and documentation for me has become synonymous with....cake :D but don't worry, I'm not completely crazy yet**

**I repeat again, both I and the others who, like me, will defend a thesis and have sacrificed much more than me to fulfill them will succeed as well as me if you accept the madness that I have written both as a program and in this documentation so that again LISTEN FUCK WE WILL WIN AND WE WILL NOT DISAPPOINT YOU!!! NOT AFTER THE WORK YOU PUT TO TRAIN US EVEN MORE IN THEORY!!!**

**Everyone has been through hardships, not just you, not just me, but I'll tell you something: hardships build us and YOU WILL PICK UP EVEN MORE THAN ME!!!! ARE WE GOING TO CAT?! WE'RE GOING TO KILL!!!! Lately I have come to this conclusion even though there are people I know who were much earlier in life than I was because they lived at the end of the last century when I was born or when they were young they had difficulties instead of living easily like me and only studying and playing games all day have come to this conclusion before me. Hats off to them! Remember this when learning programming or any other craft**

**The only reason I can stay on the computer as much as possible to work and work remotely is because I used to sit on the computer for a long time playing games and I'm used to it, I've been an electronic zombie for a long time hahaha :D**

**I'm anti-social most of the time so if I don't get a decent job and do my own projects for the future, it's because of that and I won't change because it's been in me for a long time.**

**You thought that in 2 months I wouldn't do everything after the previous information system I was doing, I developed it in development hell and still couldn't finish it and abandoned it, huh? So I have at least one complete system already and it's NO NONSENSE!!!!**

**I may be addicted to nicotine but if I have a goal I won't give up on it so don't give up on your goals either**

**I'm sensitive, I don't hide it, and I like to express myself a lot, that's why I sometimes scribbled things in the exams and that's how I show my love for music, which I love so much and which has always motivated me and given me strength! Each person is motivated by something different, for me it's music!**

**One last thing: BE BRUTAL AND LET NO ONE AND NOTHING STOP YOU FROM GOALS YOU HAVE SET FOR YOURSELF! I COULD BARELY MAKE IT AND I DID DESPITE EVERYTHING, AND IF I CAN, SO CAN YOU!!! \M/**

### THANK YOU FROM THE HEART AND I LOVE YOU!!! <3 \M/ :)

