

Explanatory note for **ERPForYou** project (Just enjoy it!)

1. Topic of the project

ERPForYou

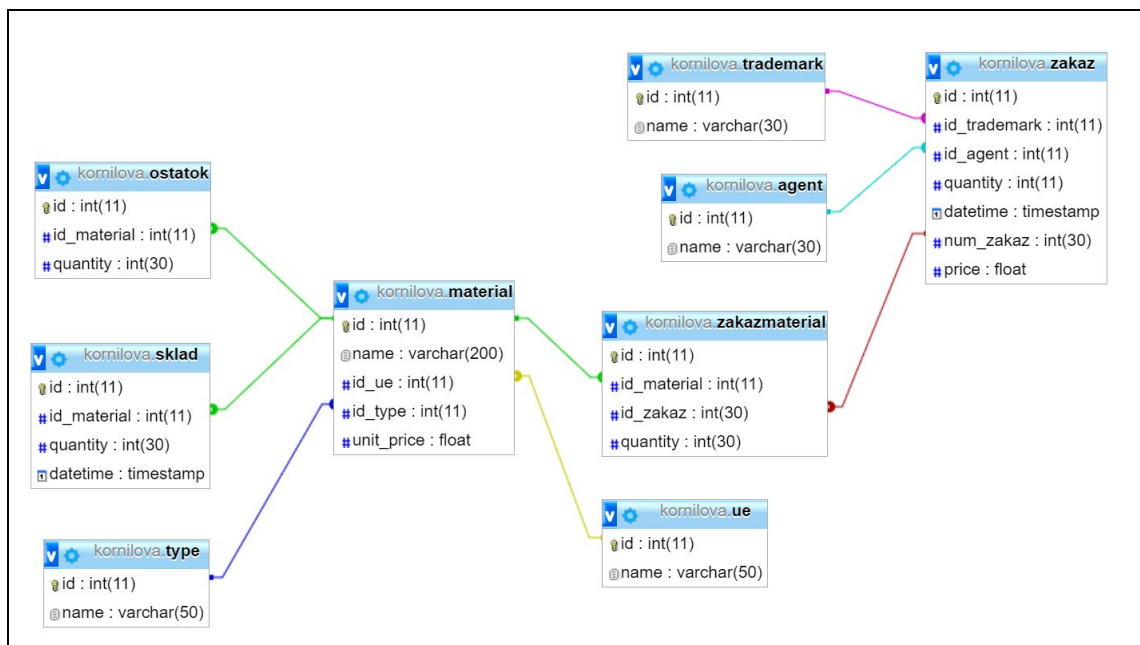
2. Annotation

2.1. Program description

The program is called **ERPForYou**. It is an mini ERP-system for the manufacturing company of advertising samples (small business). In this program a user can manage process of income and expenditure of materials, get the general price of the inserting order and see the quantity of each material in a warehouse at present time.

2.2. Server logic and API

MySQL Database is located on a remote server (kornilova.styleru.net), it was created using phpmyadmin. It provides the possibility of online remote work with the database from multiple devices. The API which provides all types of work with DB like editing, adding and deleting items is written on PHP (it is the “web” folder in the repository). We also used fat-free framework to shorten the PHP code and protect the database from SQL injections.



Database diagram

2.3. Program

MVVM (Model-View-ViewModel) pattern is implemented in our program. This pattern enables us to separate data/logic and UI.

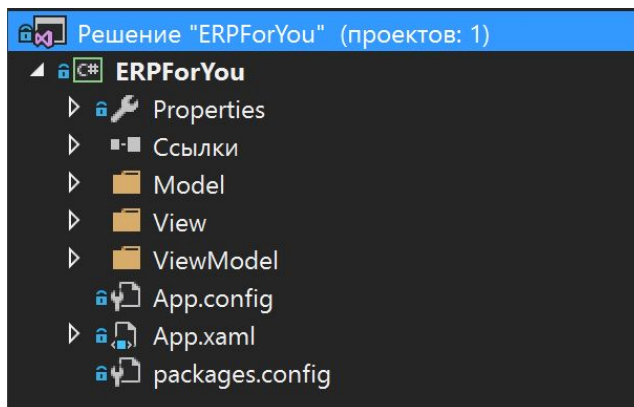
Also additional libraries are used in the program:

Newtonsoft.Json
MVVMLight
MVVMLightLibs
CommonServiceLocator

The solution consists of only one project.

In the project there are 3 folders:

Model folder - classes for database entities (models) are located there,
ViewModel folder - ViewModels classes with almost all logic are located there,
View folder - UI is located there, but it does not know anything about logic and data.



Project structure

3. Central repository address

<https://github.com/skor98/ERPForYou>

4. Members of the team

Name and group	Role
Natalia Pestova 154(1)	server logic, API
Svetlana Kornilova 154(2)	UI/UX, abstractions, database interconnection
Parvin Tagieva 153	UI, content, client logic

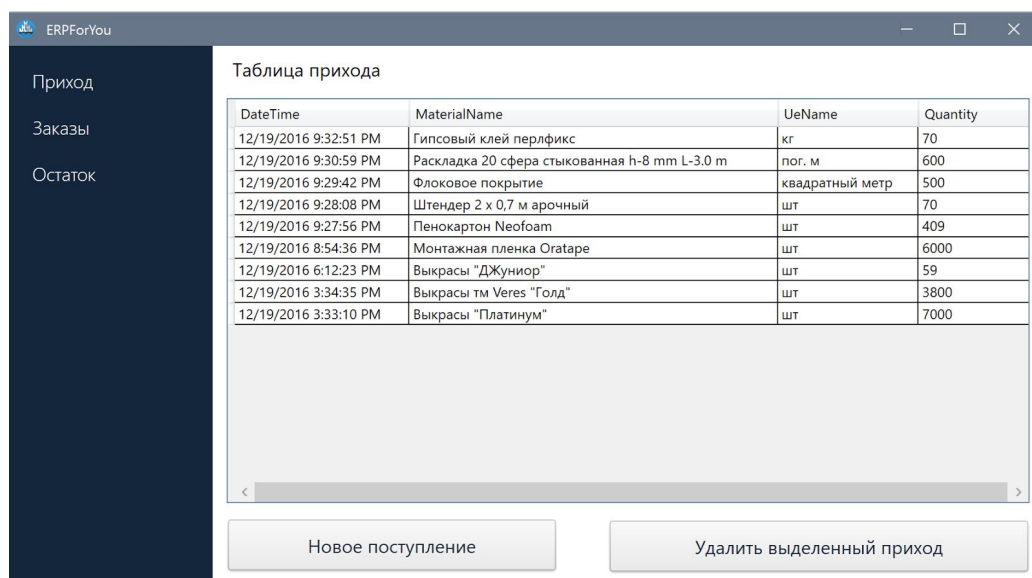
5. List of classes

Class	Annotation
Model folder	
Agent.cs	Basic classes which are created for database integration. Contain the same editable fields as their DB prototypes. Do not have any declared methods.
Material.cs	
Ostatok.cs	
Sklad.cs	
Trademark.cs	
Type.cs	
UE.cs	
Zakaz.cs	
Zakaz_material.cs	
ViewModel folder	
Repository.cs	Main repository of the data from the DB. Contains lists of items of classes from the Model folder. Also contains update method for each list which gets the information from the DB using API.
ViewModelLocator.cs	Automatically created class by MVVMLight library.
DelegateCommand.cs	Basic class for implementing commands in ViewModel classes.
ViewModelPattern folder	Classes in this folder are for accurate representing data in the tables.
AddingNewMaterialViewModel.cs and other classes	These classes contain all logic for each View page except navigation.
View folder	
Icon folder	Only one icon is located here.
MainWndow.xaml	Main window of the application which consists a frame, where other pages appear.
AddingNewMaterialViewModel.xaml and other pages	Application UI and makeup are located here.

6. Program interface

ERPForYou is an multiple window WPF application. The MainWindow consists of a fixed dark navigation sidebar and one main frame control where other pages of the application appear.

First of all you can see the receipt table screen (Picture 1). It is possible to delete row from this table and database by clicking the right button if this receipt row is mistaken.

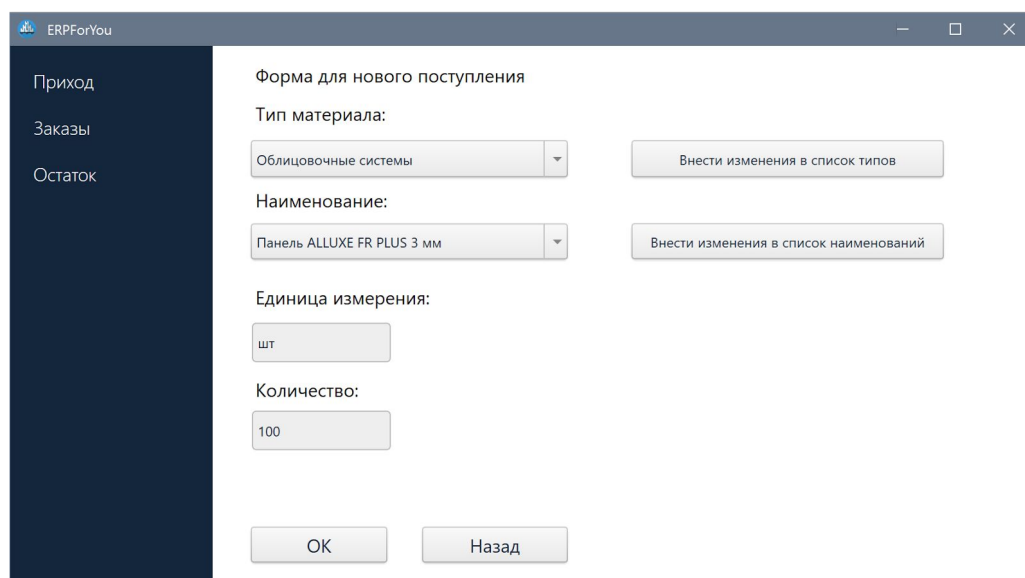


DateTime	MaterialName	UeName	Quantity
12/19/2016 9:32:51 PM	Гипсовый клей перлфикс	кг	70
12/19/2016 9:30:59 PM	Раскладка 20 сфера стыкованная h-8 mm L-3.0 m	пог. м	600
12/19/2016 9:29:42 PM	Флоковое покрытие	квадратный метр	500
12/19/2016 9:28:08 PM	Штендер 2 x 0,7 м арочный	шт	70
12/19/2016 9:27:56 PM	Пенокартон Neofoam	шт	409
12/19/2016 8:54:36 PM	Монтажная пленка Oratape	шт	6000
12/19/2016 6:12:23 PM	Выкрасы "Джуниор"	шт	59
12/19/2016 3:34:35 PM	Выкрасы тм Veres "Голд"	шт	3800
12/19/2016 3:33:10 PM	Выкрасы "Платинум"	шт	7000

Buttons: Новое поступление, Удалить выделенный приход

Picture 1

After clicking the left button a form for a new receipt will appear (Picture 2). Due to the fact that our application is for small business which does not have so many materials in the warehouse, we decided to add comboboxes filled with data from the database in order to make forms filling more comfortable and faster. The second combobox will represent only materials of the type selected above. The first textbox fills out automatically for the material selected above. Back button at the bottom relocates you to the previous page.



Форма для нового поступления

Тип материала:
Облицовочные системы

Наименование:
Панель ALLUXE FR PLUS 3 мм

Единица измерения:
шт

Количество:
100

Buttons: OK, Назад

Picture 2

After clicking one of the buttons on the previous page you will navigate to editing page of type list or name list respectively. The picture 3 represents the editing page for type list. Typing in the first textbox here makes the add button enabled. If there is mistake in the type name in the list, you can change this name by selecting it in the list, inserting the new name in the second textbox and clicking the change button (Picture 4). All the changes will appear in the listbox and database immediately.

ERPForYou

Приход
Заказы
Остаток

Назад

- Лакокрасочные материалы
- Монтажные материалы
- Строительные смеси
- Облицовочные системы
- Декоративные покрытия
- Интерьерные покрытия
- Пленки
- Крепежи
- Флагштоки
- Штендеры
- Упаковочные материалы

Добавить новый тип

Добавить

Изменить существующий тип

Выберите тип из списка и введите ниже его новое название

Изменить

Picture 3

ERPForYou

Приход
Заказы
Остаток

Назад

- Лакокрасочные материалы
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- Пленки
- Крепежи
- Флагштоки
- Штендеры
- Упаковочные материалы

Добавить новый тип

Добавить

Изменить существующий тип

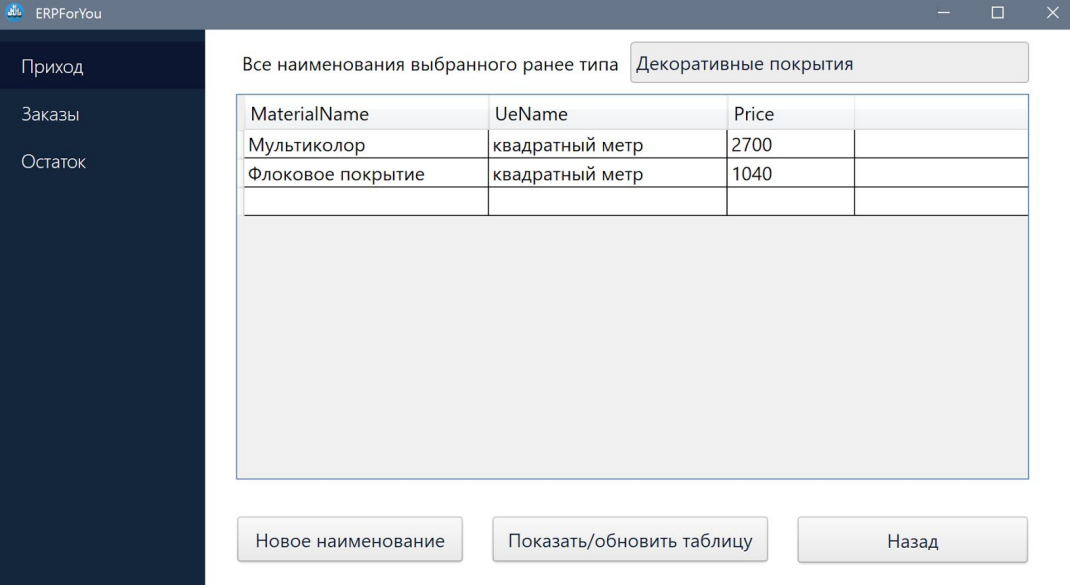
Выберите тип из списка и введите ниже его новое название

Монтажные материалы

Изменить

Picture 4

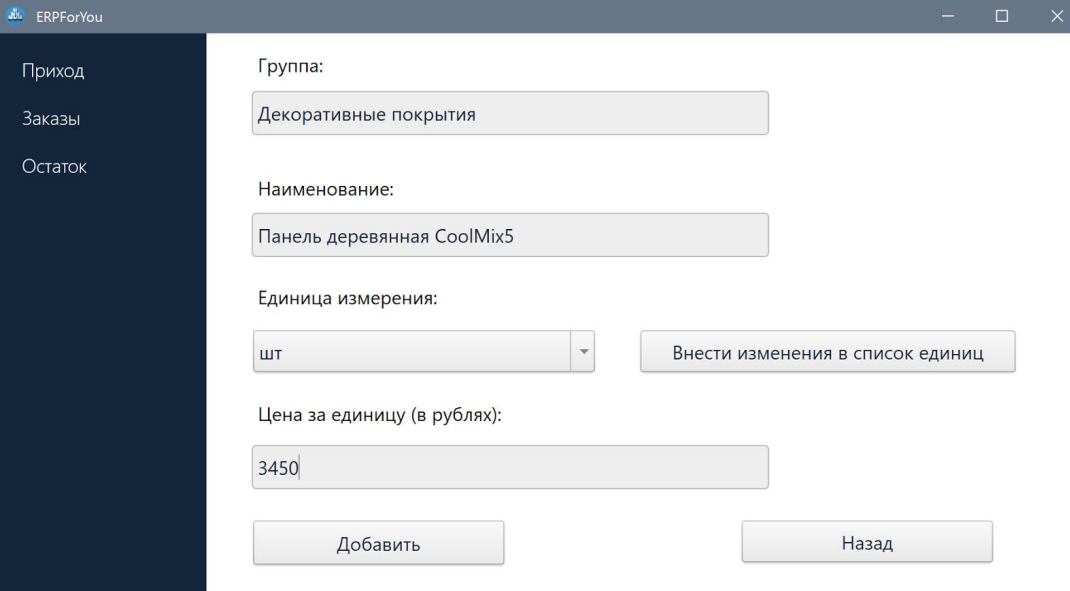
The picture 5 represents the first editing page for name list. Then you can navigate to picture 6 and add new material of type selected on the receipt form page (picture 2) setting its price and measure.



The screenshot shows the ERPForYou application window. On the left is a dark sidebar with three menu items: "Приход", "Заказы", and "Остаток". The main area has a title bar with the application name and standard window controls. Below the title bar, there's a text label "Все наименования выбранного ранее типа" followed by a text input field containing "Декоративные покрытия". Below this is a table with four columns: "MaterialName", "UeName", "Price", and an empty column. The table contains two rows of data. Below the table is a large empty rectangular area. At the bottom of the main area are three buttons: "Новое наименование", "Показать/обновить таблицу", and "Назад".

MaterialName	UeName	Price	
Мультиколор	квадратный метр	2700	
Флоковое покрытие	квадратный метр	1040	

Picture 5



The screenshot shows the ERPForYou application window. On the left is a dark sidebar with three menu items: "Приход", "Заказы", and "Остаток". The main area has a title bar with the application name and standard window controls. Below the title bar, there's a form with several fields. The first field is labeled "Группа:" and contains "Декоративные покрытия". The second field is labeled "Наименование:" and contains "Панель деревянная CoolMix5". The third field is labeled "Единица измерения:" and contains "шт". To the right of this field is a button labeled "Внести изменения в список единиц". Below these fields is a field labeled "Цена за единицу (в рублях):" containing the value "3450". At the bottom of the main area are two buttons: "Добавить" and "Назад".

Picture 6

The expenditure table page is just the same as the receipt one (Picture 7).

Table includes:

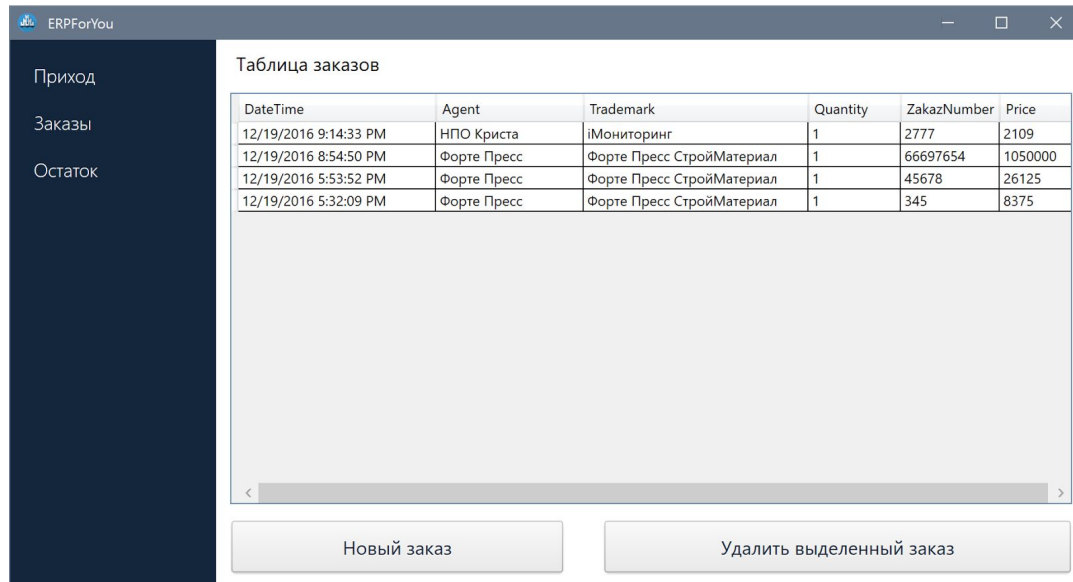
agent - client company,

trademark - agent's product which is going to be advertised by using materials,

quantity - quantity of different materials in the order,

price - calculated by the program

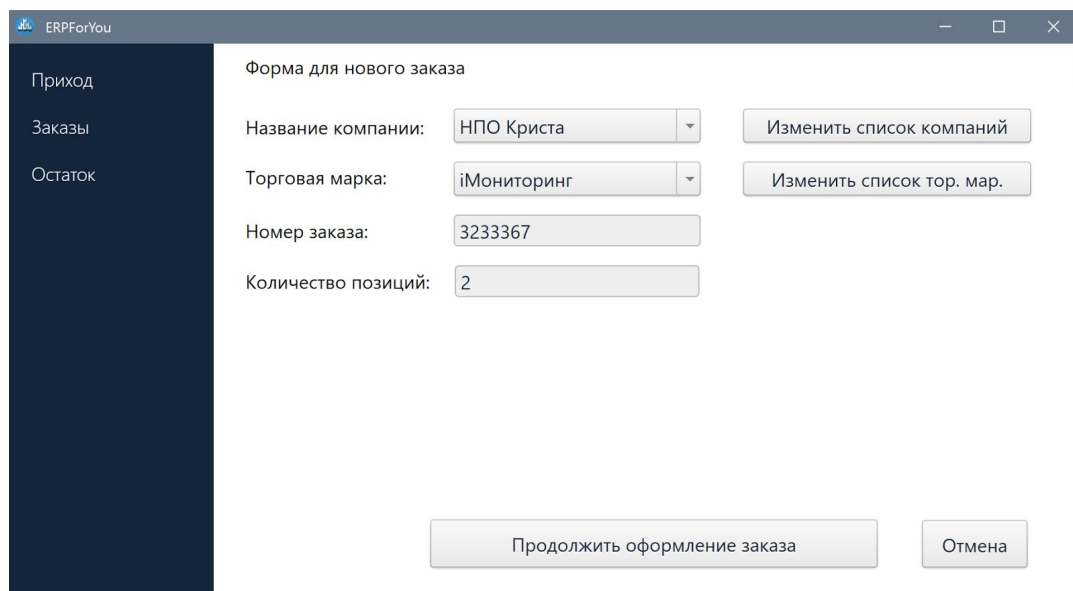
and other obvious columns.



DateTime	Agent	Trademark	Quantity	ZakazNumber	Price
12/19/2016 9:14:33 PM	НПО Криста	iМониторинг	1	2777	2109
12/19/2016 8:54:50 PM	Форте Пресс	Форте Пресс Стройматериал	1	66697654	1050000
12/19/2016 5:53:52 PM	Форте Пресс	Форте Пресс Стройматериал	1	45678	26125
12/19/2016 5:32:09 PM	Форте Пресс	Форте Пресс Стройматериал	1	345	8375

Picture 7

Form for the expenditure is depicted on picture 8. In the last textbox quantity of different materials should be inserted. Buttons on the right side will navigate you to editing pages (just the same as Picture 4).



Форма для нового заказа

Название компании: НПО Криста Изменить список компаний

Торговая марка: iМониторинг Изменить список тор. мар.

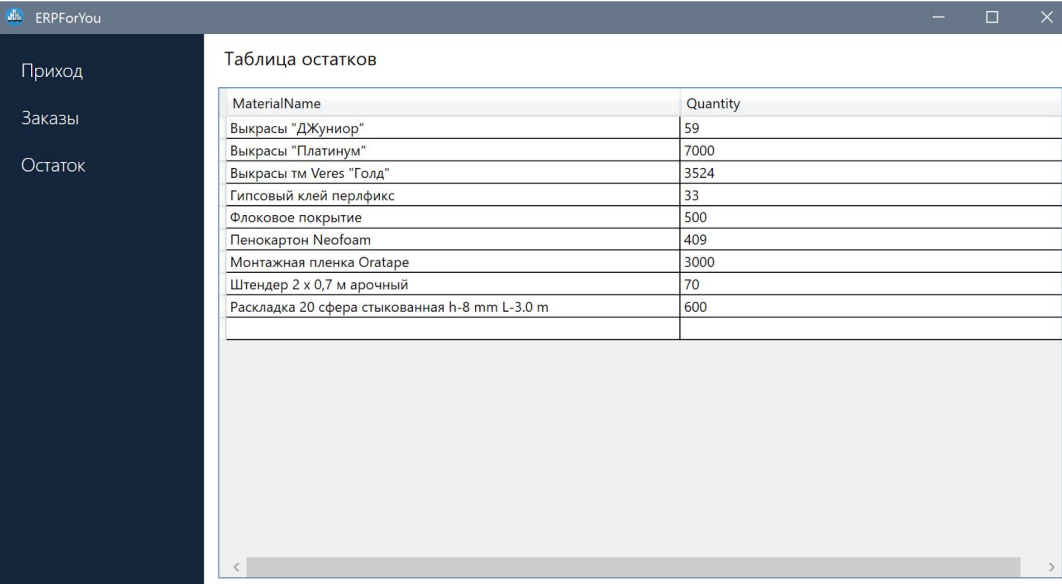
Номер заказа: 3233367

Количество позиций: 2

Продолжить оформление заказа Отмена

Picture 8

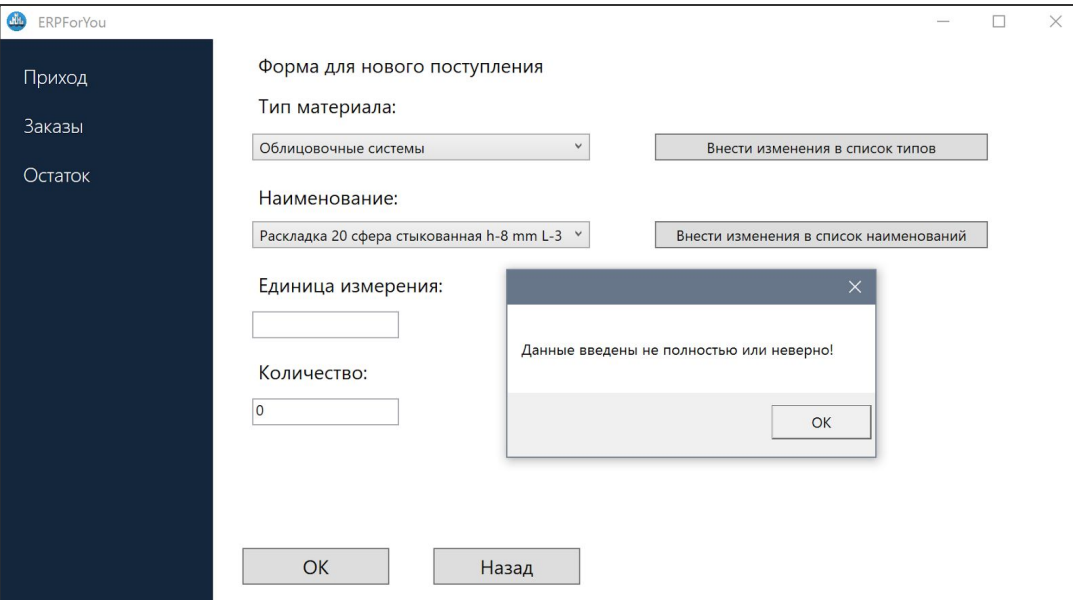
Finally, it is possible to see remainder of the materials in the warehouse (Picture 9). The quantity is also calculated by the program which takes into account orders and incomes both.



MaterialName	Quantity
Выкрасы "ДЖуниор"	59
Выкрасы "Платинум"	7000
Выкрасы тм Veres "Голд"	3524
Гипсовый клей перлфикс	33
Флоковое покрытие	500
Пенокартон Neofoam	409
Монтажная пленка Oratape	3000
Штендер 2 x 0,7 м арочный	70
Раскладка 20 сфера стыкованная h-8 mm L-3.0 m	600

Picture 9

In application exception handling is also implemented. The MessageBox with exception message will appear immediately after an exception (Picture 10).



Форма для нового поступления

Тип материала:

Облицовочные системы

Внести изменения в список типов

Наименование:

Раскладка 20 сфера стыкованная h-8 mm L-3

Внести изменения в список наименований

Единица измерения:

Количество:

0

Данные введены не полностью или неверно!

OK

OK Назад

Picture 10