Documentation

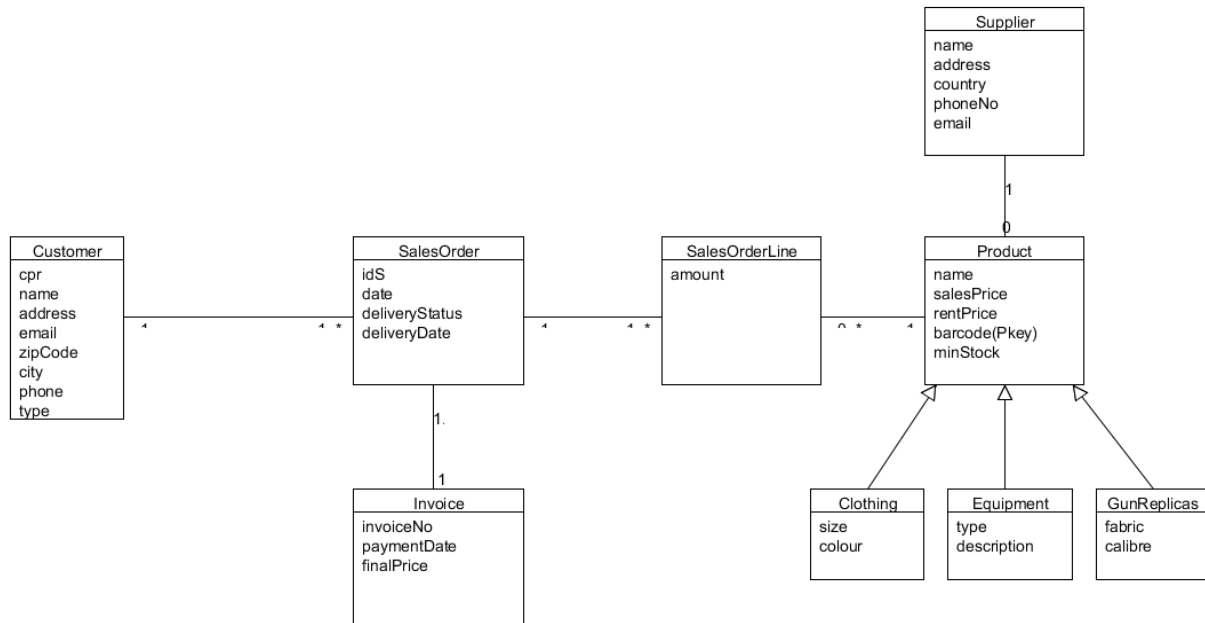## "Western Style Ltd." Workshop

Group 4

Group Members:

- Andrei Lucaci
- Cosmin Stan
- Cristian Moldovan
- Razvan Andrei
- Robert Ivan

Supervisors
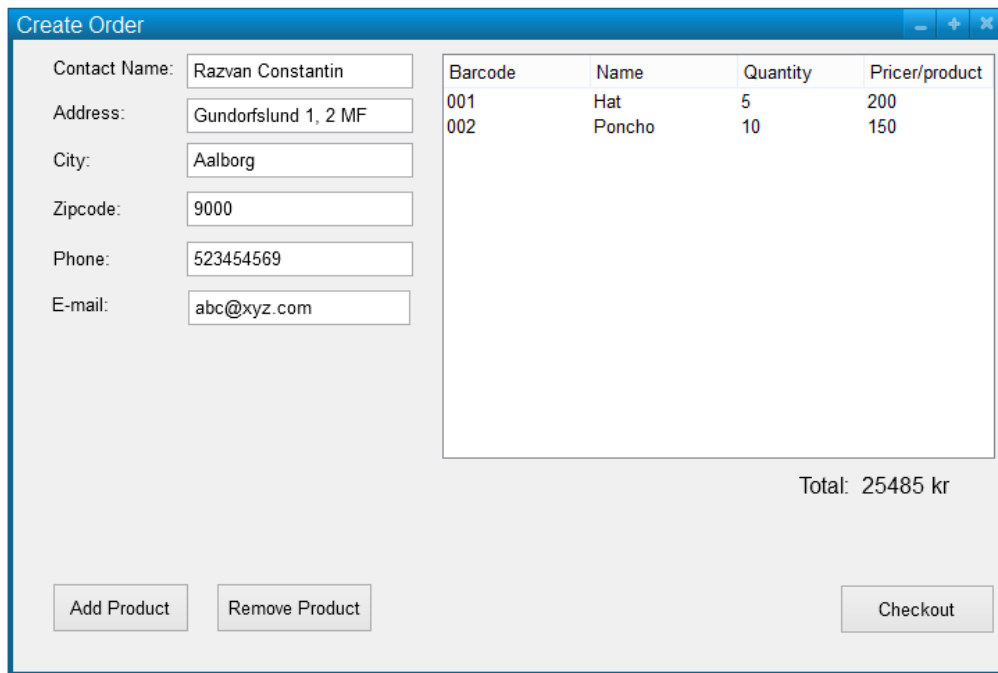
- Istvan Knoll
- Ann Francke Riisberg
- Henrik Munk Hvarregaard

Repository path: https://github.com/Swiftrow/Group4

Domain Model

Supplier
- name
- address
- country
- phoneNo
- email

1

0

Customer
- cpr
- name
- address
- email
- zipCode
- city
- phone
- type

1   1 *

SalesOrder
- idS
- date
- deliveryStatus
- deliveryDate

1   1 *

SalesOrderLine
- amount

0 *   1

Product
- name
- salesPrice
- rentPrice
- barcode(Pkey)
- minStock

1.

1

Invoice
- invoiceNo
- paymentDate
- finalPrice

Clothing
- size
- colour

Equipment
- type
- description

GunReplicas
- fabric
- calibre

Mock-ups, design and argumentation
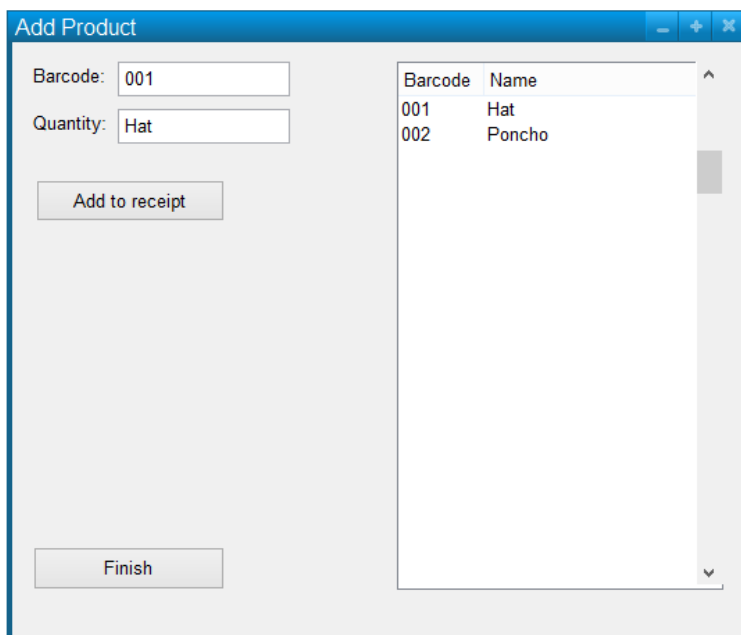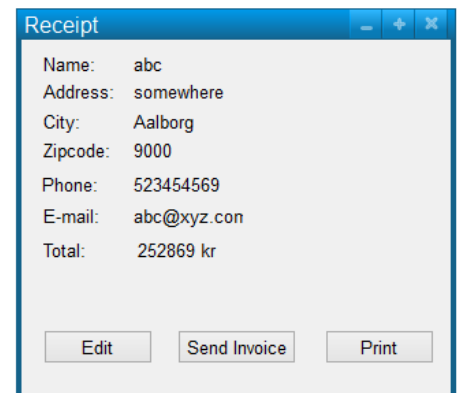

For designing the windows for our program, we used Pencil. The window has an easy-to-use layout, on the left information is inserted using text fields.

The SQL Script for the database creation

```sql
USE [dmai0914_2Sem_4]
GO
/****** Object:  Table [dbo].[Address]    Script Date: 20-Mar-15 4:34:21 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[Address](
      [cpr] [numeric](10, 0) NOT NULL,
      [country] [varchar](255) NOT NULL,
      [city] [varchar](255) NOT NULL,
      [zipcode] [varchar](255) NOT NULL
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
/****** Object:  Table [dbo].[Clothing]    Script Date: 20-Mar-15 4:34:21 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[Clothing](
      [barcodeC] [numeric](10, 0) NOT NULL,
      [colour] [varchar](255) NOT NULL,
      [size] [varchar](255) NOT NULL
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
/****** Object:  Table [dbo].[Customer]    Script Date: 20-Mar-15 4:34:21 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[Customer](
      [cpr] [numeric](10, 0) NOT NULL,
      [name] [varchar](255) NOT NULL,
      [phone] [varchar](255) NOT NULL,
      [email] [varchar](255) NOT NULL,
      [street] [varchar](255) NOT NULL,
      [customerType] [varchar](255) NOT NULL,
PRIMARY KEY CLUSTERED
(
      [cpr] ASC
```

```sql
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF,
ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
/****** Object:  Table [dbo].[Equipement]    Script Date: 20-Mar-15 4:34:21 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[Equipement](
      [barcodeE] [numeric](10, 0) NOT NULL,
      [eqType] [varchar](255) NOT NULL,
      [eqDescription] [varchar](255) NOT NULL
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
/****** Object:  Table [dbo].[GunReplicas]    Script Date: 20-Mar-15 4:34:21 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[GunReplicas](
      [barcodeG] [numeric](10, 0) NOT NULL,
      [calibre] [varchar](255) NOT NULL,
      [fabric] [varchar](255) NOT NULL
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
/****** Object:  Table [dbo].[Invoice]    Script Date: 20-Mar-15 4:34:21 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[Invoice](
      [finalPrice] [numeric](10, 0) NOT NULL,
      [IDSI] [numeric](10, 0) NOT NULL,
      [invoiceNo] [numeric](10, 0) NOT NULL,
      [paymentDate] [varchar](255) NOT NULL
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
/****** Object:  Table [dbo].[Product]    Script Date: 20-Mar-15 4:34:21 PM ******/
SET ANSI_NULLS ON
```

```
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[Product](
       [barcode] [numeric](10, 0) NOT NULL,
       [name] [varchar](255) NOT NULL,
       [sPrice] [numeric](10, 0) NOT NULL,
       [rPrice] [numeric](10, 0) NOT NULL,
       [minStock] [numeric](10, 0) NOT NULL,
       [productType] [varchar](255) NOT NULL,
PRIMARY KEY CLUSTERED
(
       [barcode] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF,
ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
/****** Object:  Table [dbo].[SalesOrder]    Script Date: 20-Mar-15 4:34:21 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
SET ANSI_PADDING ON
GO
CREATE TABLE [dbo].[SalesOrder](
       [cpr] [numeric](10, 0) NOT NULL,
       [saleDate] [varchar](255) NOT NULL,
       [deliveryStatus] [varchar](255) NOT NULL,
       [deliveryDate] [varchar](255) NOT NULL,
       [totalPrice] [numeric](10, 0) NOT NULL,
       [IDS] [numeric](10, 0) NOT NULL,
PRIMARY KEY CLUSTERED
(
       [IDS] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF,
ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]

GO
SET ANSI_PADDING OFF
GO
/****** Object:  Table [dbo].[SalesOrderLine]    Script Date: 20-Mar-15 4:34:21 PM
******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[SalesOrderLine](
       [IDSL] [numeric](10, 0) NOT NULL,
       [amount] [numeric](10, 0) NOT NULL,
       [barcodeL] [numeric](10, 0) NOT NULL
) ON [PRIMARY]
```
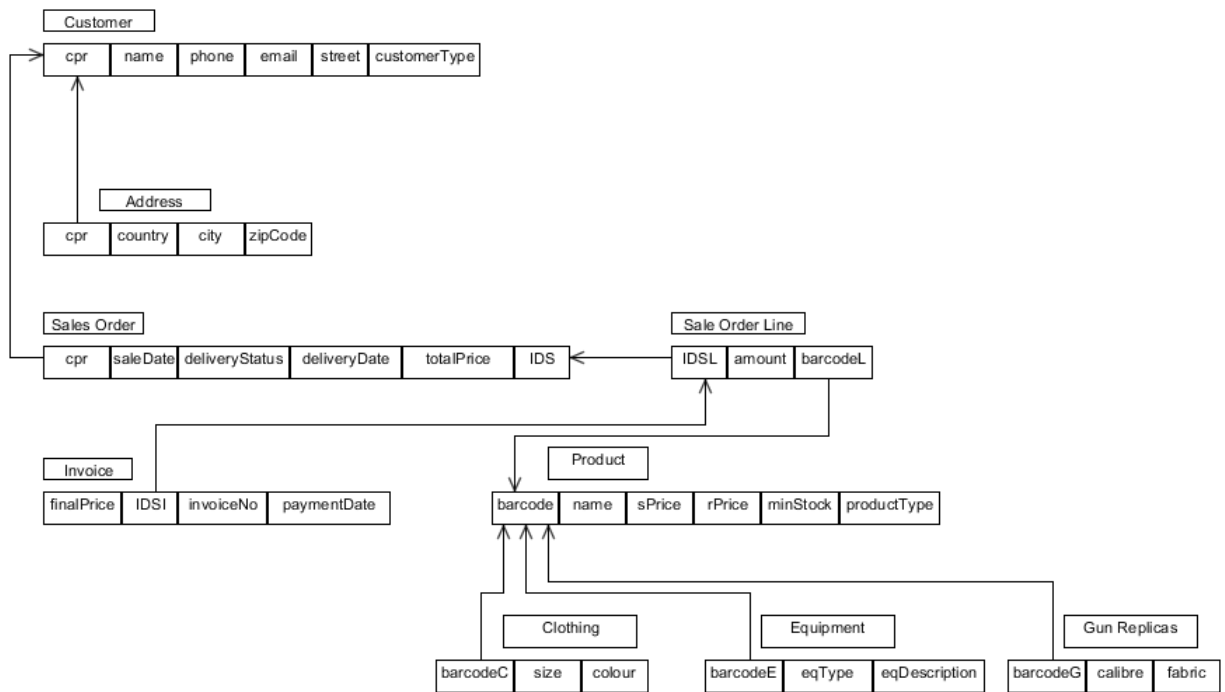
```sql
GO
ALTER TABLE [dbo].[Address]  WITH CHECK ADD  CONSTRAINT [fk_cpr] FOREIGN KEY([cpr])
REFERENCES [dbo].[Customer] ([cpr])
GO
ALTER TABLE [dbo].[Address] CHECK CONSTRAINT [fk_cpr]
GO
ALTER TABLE [dbo].[Clothing]  WITH CHECK ADD  CONSTRAINT [fk_barcodeC] FOREIGN
KEY([barcodeC])
REFERENCES [dbo].[Product] ([barcode])
GO
ALTER TABLE [dbo].[Clothing] CHECK CONSTRAINT [fk_barcodeC]
GO
ALTER TABLE [dbo].[Equipement]  WITH CHECK ADD  CONSTRAINT [fk_barcodeE] FOREIGN
KEY([barcodeE])
REFERENCES [dbo].[Product] ([barcode])
GO
ALTER TABLE [dbo].[Equipement] CHECK CONSTRAINT [fk_barcodeE]
GO
ALTER TABLE [dbo].[GunReplicas]  WITH CHECK ADD  CONSTRAINT [fk_barcodeG] FOREIGN
KEY([barcodeG])
REFERENCES [dbo].[Product] ([barcode])
GO
ALTER TABLE [dbo].[GunReplicas] CHECK CONSTRAINT [fk_barcodeG]
GO
ALTER TABLE [dbo].[Invoice]  WITH CHECK ADD  CONSTRAINT [fk_IDSI] FOREIGN KEY([IDSI])
REFERENCES [dbo].[SalesOrder] ([IDS])
GO
ALTER TABLE [dbo].[Invoice] CHECK CONSTRAINT [fk_IDSI]
GO
ALTER TABLE [dbo].[SalesOrder]  WITH CHECK ADD  CONSTRAINT [fk_scpr] FOREIGN KEY([cpr])
REFERENCES [dbo].[Customer] ([cpr])
GO
ALTER TABLE [dbo].[SalesOrder] CHECK CONSTRAINT [fk_scpr]
GO
ALTER TABLE [dbo].[SalesOrderLine]  WITH CHECK ADD  CONSTRAINT [fk_barcodeL] FOREIGN
KEY([barcodeL])
REFERENCES [dbo].[Product] ([barcode])
GO
ALTER TABLE [dbo].[SalesOrderLine] CHECK CONSTRAINT [fk_barcodeL]
GO
ALTER TABLE [dbo].[SalesOrderLine]  WITH CHECK ADD  CONSTRAINT [fk_IDSL] FOREIGN
KEY([IDSL])
REFERENCES [dbo].[SalesOrder] ([IDS])
GO
ALTER TABLE [dbo].[SalesOrderLine] CHECK CONSTRAINT [fk_IDSL]
GO
```

(This script was generated by program, because when we've created the tables we have done it step by step)

Relational model.

Customer

cpr	name	phone	email	street	customerType

Address

cpr	country	city	zipCode

Sales Order

cpr	saleDate	deliveryStatus	deliveryDate	totalPrice	IDS

Sale Order Line

IDSL	amount	barcodeL

Invoice

finalPrice	IDSI	invoiceNo	paymentDate

Product

barcode	name	sPrice	rPrice	minStock	productType

Clothing

barcodeC	size	colour

Equipment

barcodeE	eqType	eqDescription

Gun Replicas

barcodeG	calibre	fabric

8

Fully dressed use-case for order processing

Register order		
Actors	Employee/Manager	
Pre-conditions	The desired product is available in stock	
Post-condition	The order is created and the products are added to the invoice	
Frequency	10 times a day	
Main success scenario	Actors(Action)	System(Response)
	1.Employee searches for the desired product	2.System shows if the product(s) are available
	3.Employee adds the products from the database	4.System creates a new order
	5.Employee enters customer's ID and type	6.System calculates the price and makes a discount (if the requirements are fulfilled)
		7.System updates the stock and prints the receipt
Alternative flows	*-Item is not available in the stock	

Interaction diagrams, fully dressed use-case