Endterm project: CRM Database

CRM and DB analysis

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CS-2009

Object-oriented programming Java

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Introduction

Background of project:

Our project was designed to analyze customer relationship management data. We took the client database and enter it into PGadmin and output the data using a java virtual machine. In the project, we used several classes, methods to get the analyzed data.
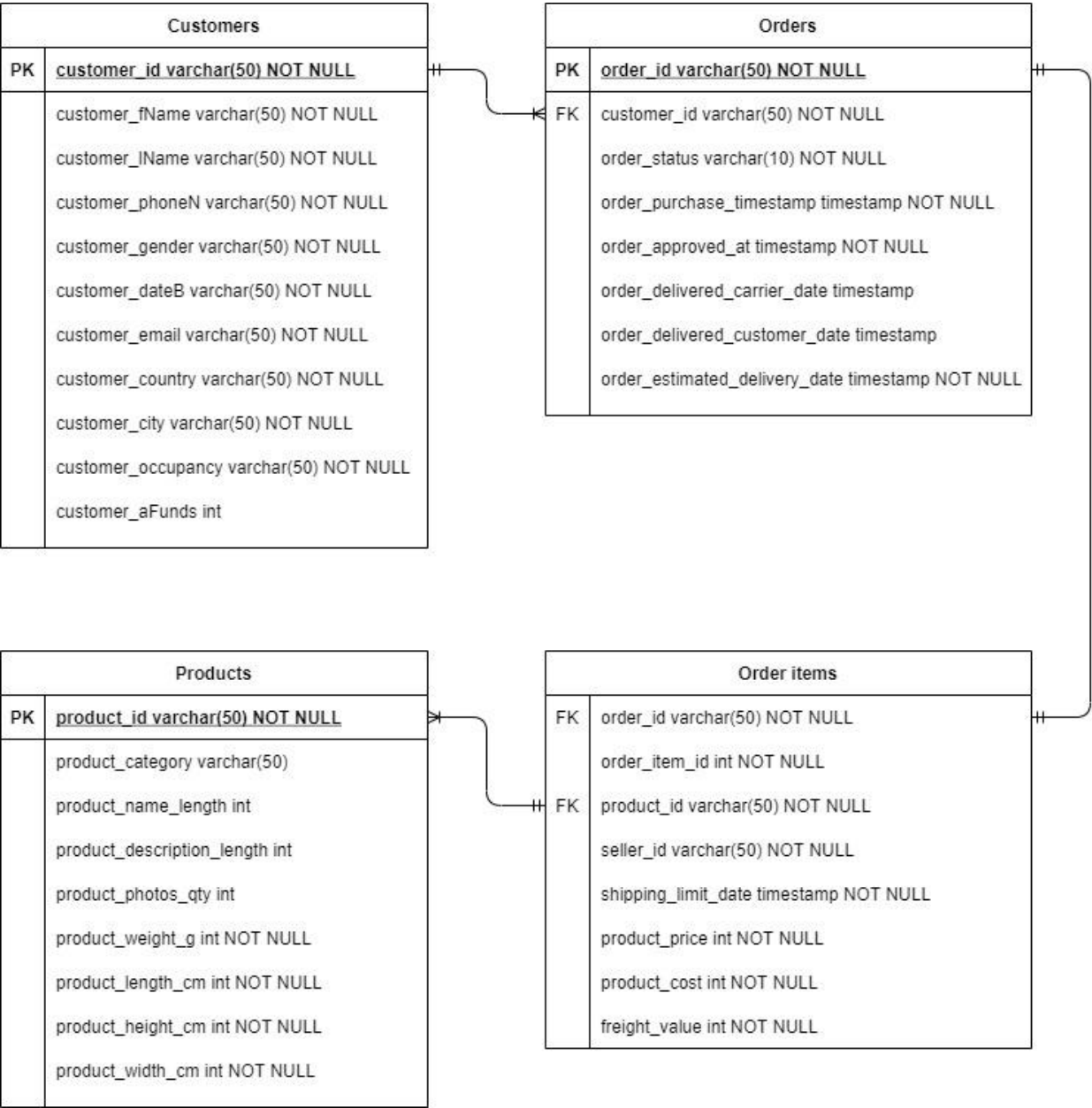
Aim of the project:

1. Entering data into the Pgadmin database using a java virtual machine.

2. Output the analyzed data from the Pgadmin database using a Java virtual machine.

Our roles in the project:
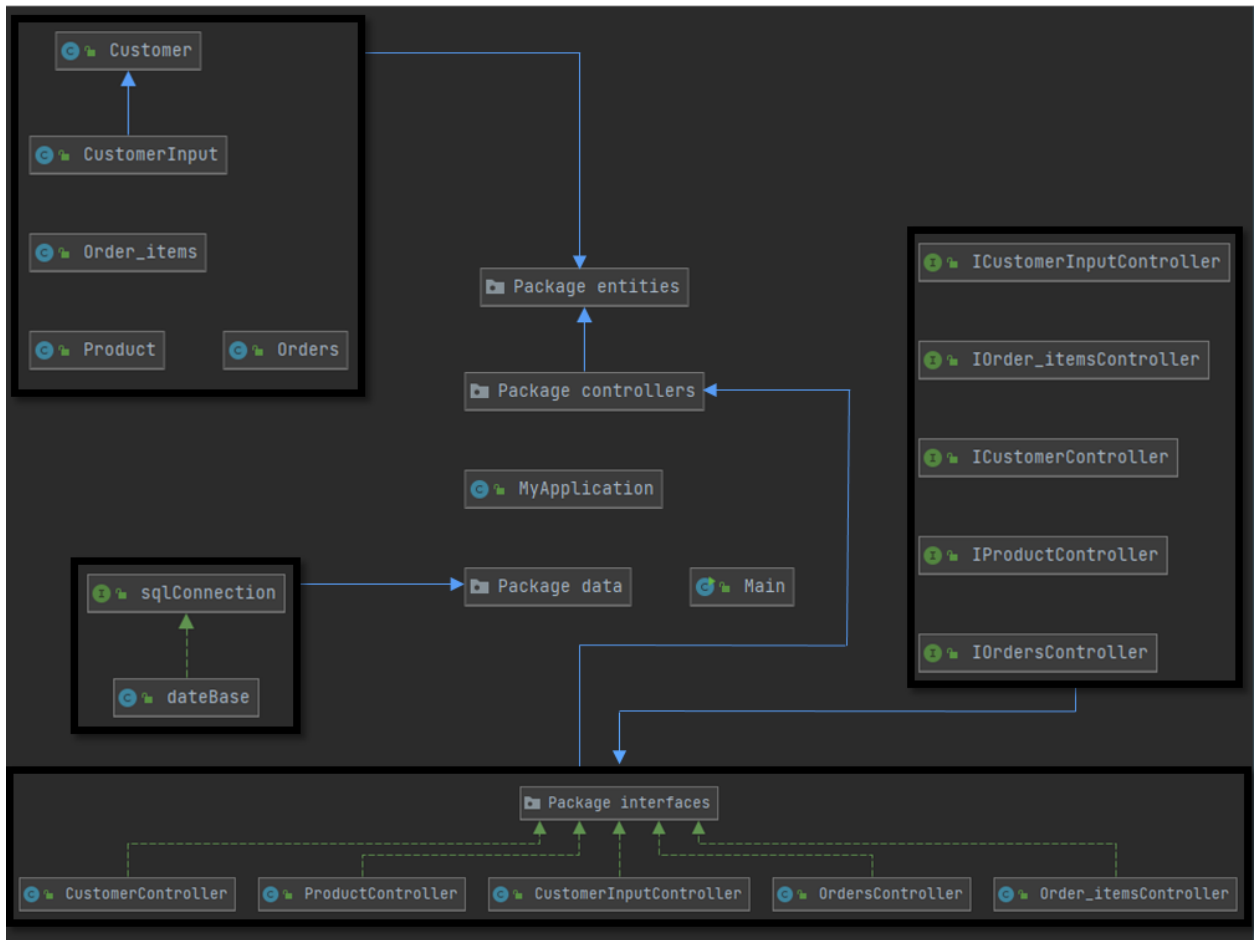
Pernebaev Sanzhar - support for the creation of the project architecture, creation of the main diagram, filling in data in the database, creation of methods for outputting data in a JVM, testing the project.

Shuishbaev Nuruddin - partial creation of the project architecture, support for the creation analyzed methods in the JVM, filling in data in the database, testing the project.

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ER Diagram

Customers

PK	customer_id varchar(50) NOT NULL
	customer_fName varchar(50) NOT NULL
	customer_lName varchar(50) NOT NULL
	customer_phoneN varchar(50) NOT NULL
	customer_gender varchar(50) NOT NULL
	customer_dateB varchar(50) NOT NULL
	customer_email varchar(50) NOT NULL
	customer_country varchar(50) NOT NULL
	customer_city varchar(50) NOT NULL
	customer_occupancy varchar(50) NOT NULL
	customer_aFunds int

Orders

PK	order_id varchar(50) NOT NULL
FK	customer_id varchar(50) NOT NULL
	order_status varchar(10) NOT NULL
	order_purchase_timestamp timestamp NOT NULL
	order_approved_at timestamp NOT NULL
	order_delivered_carrier_date timestamp
	order_delivered_customer_date timestamp
	order_estimated_delivery_date timestamp NOT NULL

Products

PK	product_id varchar(50) NOT NULL
	product_category varchar(50)
	product_name_length int
	product_description_length int
	product_photos_qty int
	product_weight_g int NOT NULL
	product_length_cm int NOT NULL
	product_height_cm int NOT NULL
	product_width_cm int NOT NULL

Order items

FK	order_id varchar(50) NOT NULL
	order_item_id int NOT NULL
FK	product_id varchar(50) NOT NULL
	seller_id varchar(50) NOT NULL
	shipping_limit_date timestamp NOT NULL
	product_price int NOT NULL
	product_cost int NOT NULL
	freight_value int NOT NULL

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Java UML Diagram

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Description of classes:

Class Main

Class MyApplication

Store different objects and refer to other classes.

Methods: start();

Class Customer

Store customer related fields (name, gender, etc.) includes several methods.

Methods: Customer_loop(), showAllDataCustomer(), selectTopAgeGroup(),

Geolocation(), determineOccupancy();

CustomerInput

Extends the Customer class, provides data entry, consists of one method InputData().

Class Product

Includes fields related to products (category, number of photos, weight), there are

methods ItemLoop(), letterOfNameDescrip(),massOfProduct();

Class Orders

Stores order information, includes methods: OrderLoop(), findActiveCustomers(),

showOrderStatus();

Class Order_items

Storing more detailed order information consists of two methods.

Methods: OrderItemLoop(), Top5ExpensiveProducts(), Top5CheapestProducts(),

Top3ExpensiveProductsDate(), Top3CheapestProductsDate(),

calculateFundOfCompany();

Link to github repository:

https://github.com/Sanzhar357/CRM-project