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Product ordering system

Distributed systems project

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Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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1 Introduction

Due to outbreak of COVID-19 pandemic a lot of businesses, especially small businesses and food providers were affected. Because of that, businesses had to be shut down or figure out new methods to earn profit. For example, food providers started working together with food-delivery services. But it brought new challenges: couriers would be late, customers would be dissatisfied with their order condition and expensive third-party commissions rates, especially for the small local restaurants. This strategy would help food providers for a short time, but overall, they would lose a lot of profit.

The goal of this project is to create a non-profit application where businesses can sell their products on site or digitally without having to use third-party vendors, whose goal is to make profit by asking expensive commission fees. In addition to that our service could be used as an online order management system which would allow business employees to collect customer orders, using tablets or smartphones. Overall, a product ordering system provides business owners the possibility to add their products to a unified ordering system, where they would be able to compete with other local competitors. In addition to that a product ordering system would help local businesses to find potential customers.

By using the product ordering system business customers would be offered a wide range of products from various categories. This would allow business customers to place their order in advance and select the date and time for when they would be able to do their own pickup. When a customer has finished their order, they would receive an invoice that that can be on site or by over bank link.

Finally, for this project to succeed we must follow some principles, where we would take into consideration the needs of the small and large restaurants:

- Cheap. Given program should be available to every restaurant who would like to join the program, without affecting companies profits.
- Easy. Given program should be easy to use even for non-tech-savvy people.
- Profit. Given program should help restaurants to increase their revenue.

2 User flow for clients

In this section we will talk about user flows on our website.

2.1 Account creation and login form

Figure 1 shows account creation option and figure 2 shows login option.
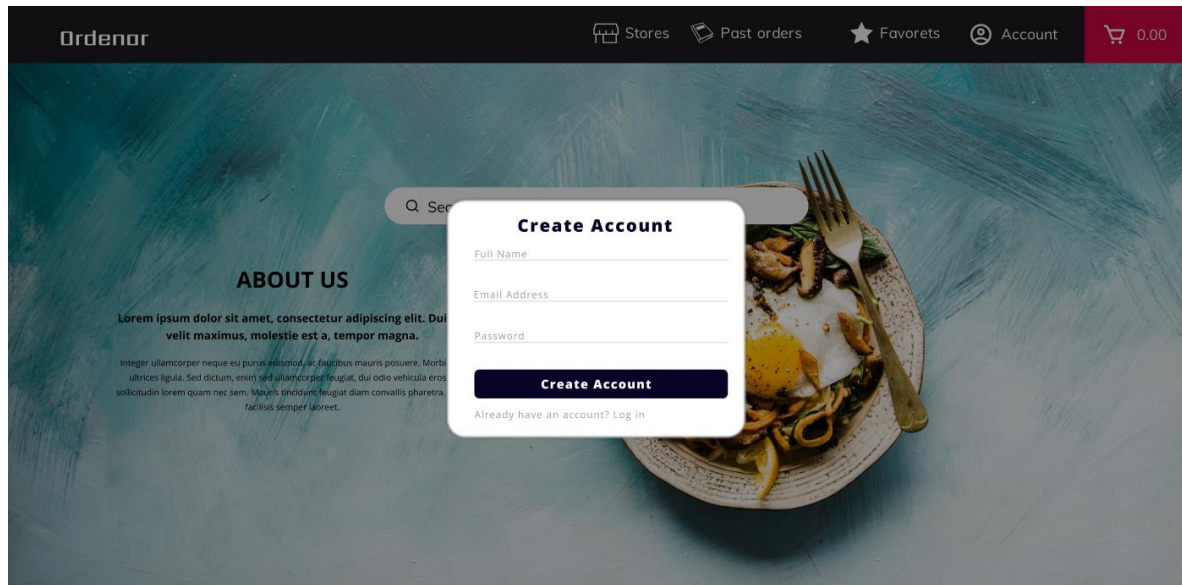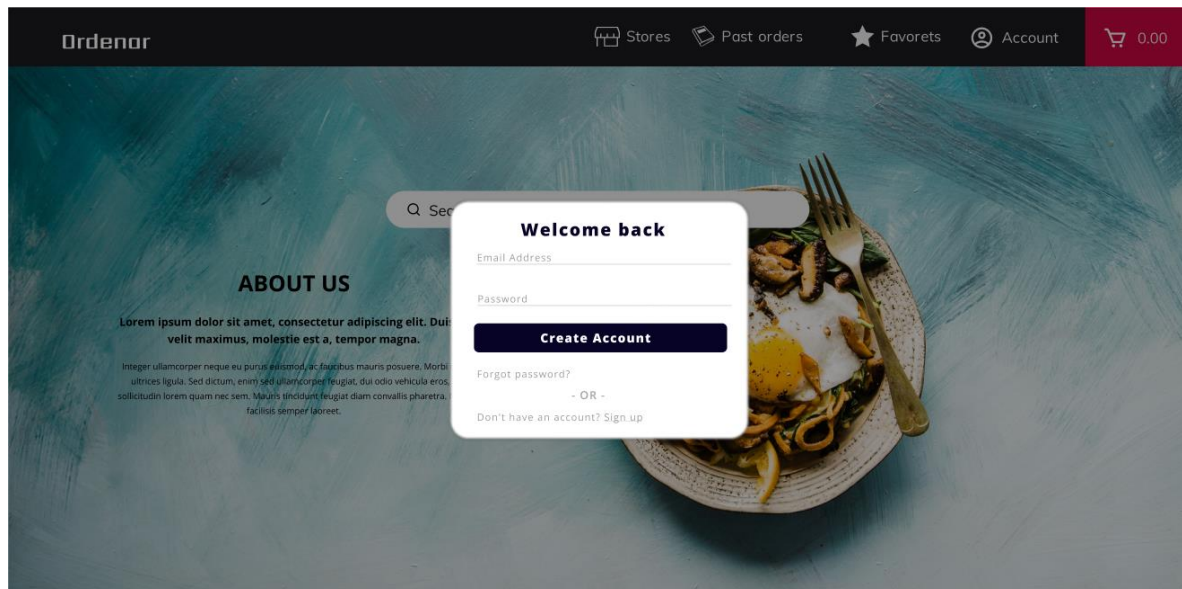

Figure 1. Create account

Figure 2. Log in

2.2 Homepage view

Figure 1 shows the homepage layout for our clients. The homepage shows a brief introduction to our service. In addition to that, users can search through all partners who use our services.
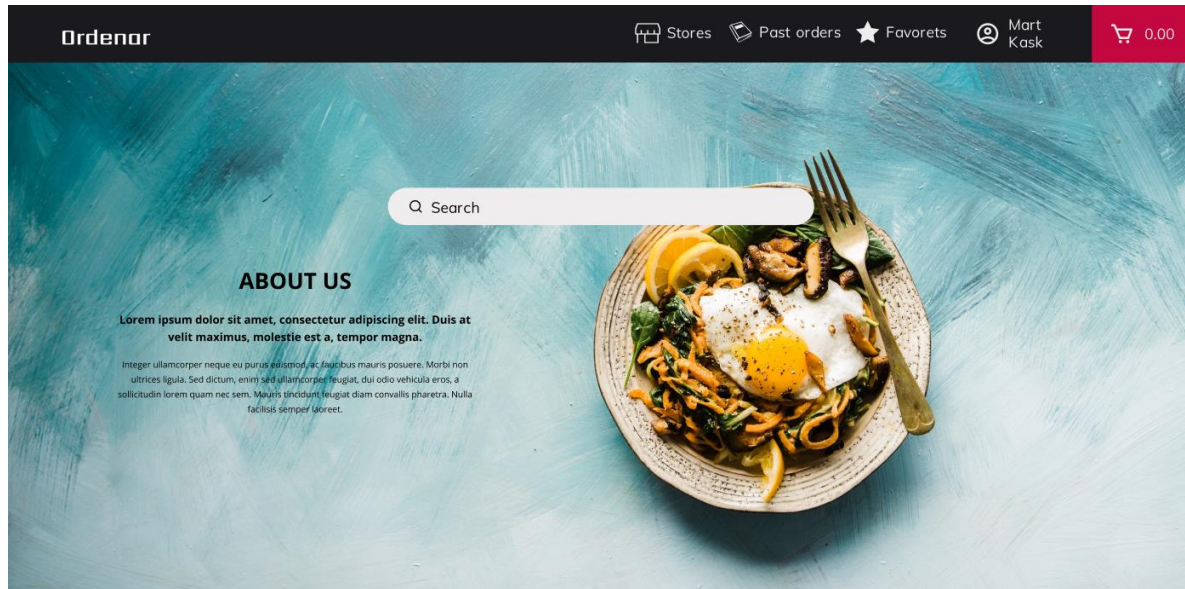

Figure 3. Homepage

2.3 List of businesses

Figure 2 shows the list of businesses that are using our services. In this page customers can see what are the most popular categories and current discounts. Also, customers can make the same search operations that were described in "2.1 Homepage view".
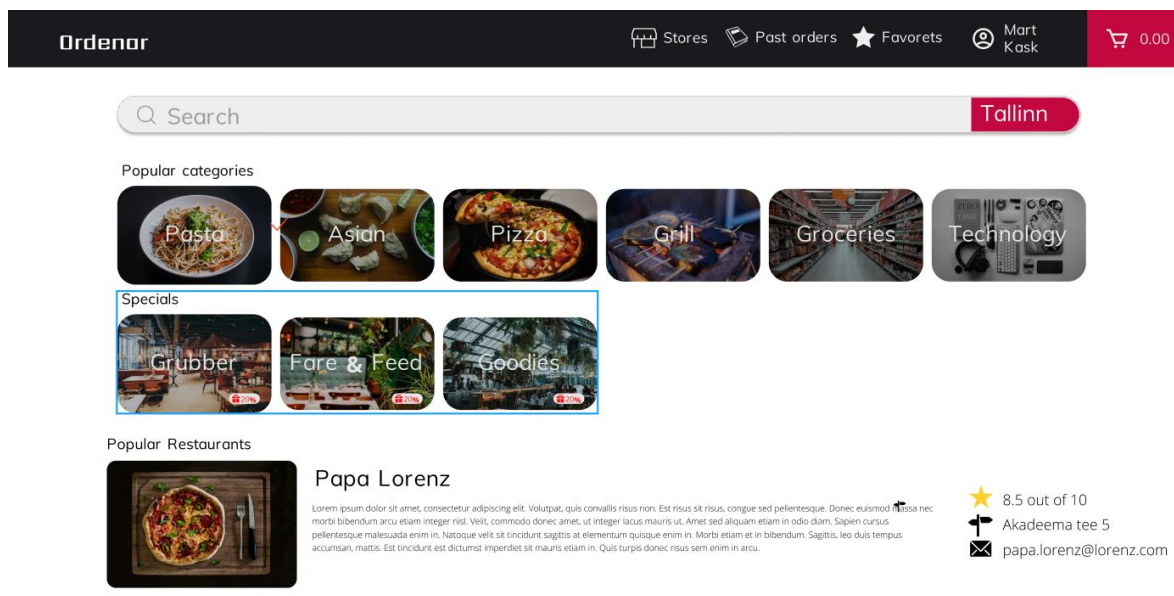

Figure 4. List of businesses

2.4 Business product selection

Figure 3 shows detailed information about the business itself and its products. Also, customers can quickly find their favorite products.
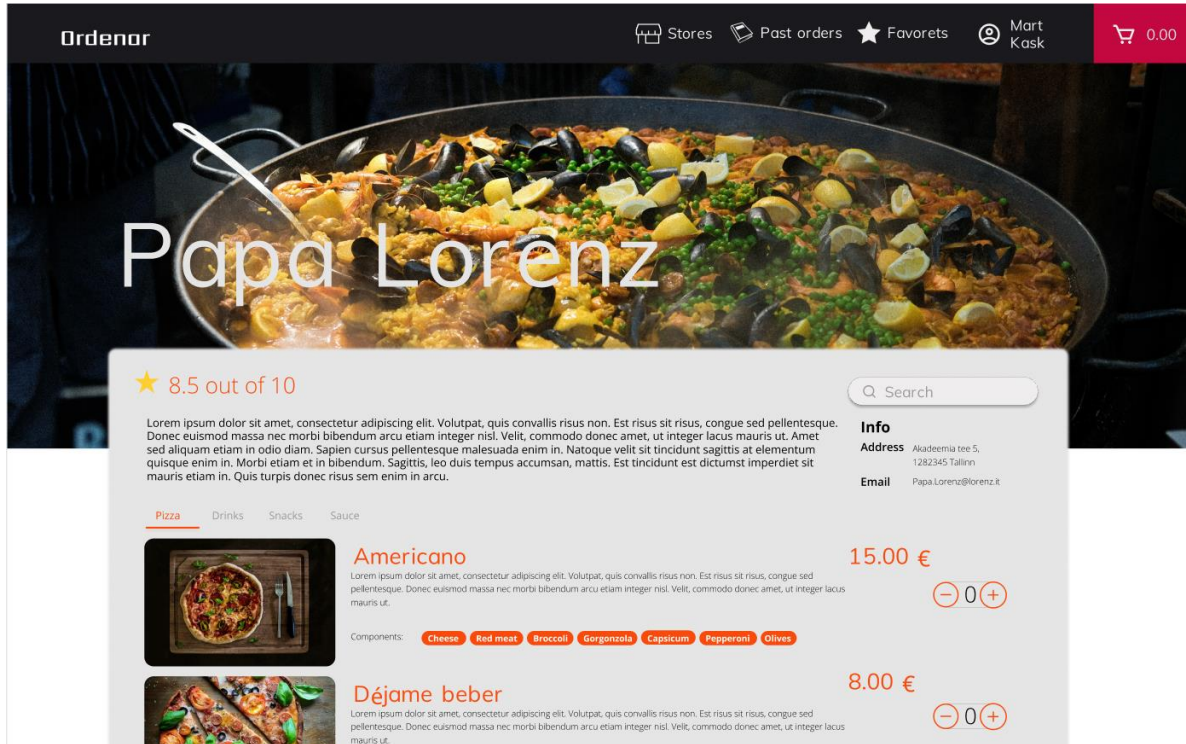

Figure 5. Business product selection

2.5 Basket view

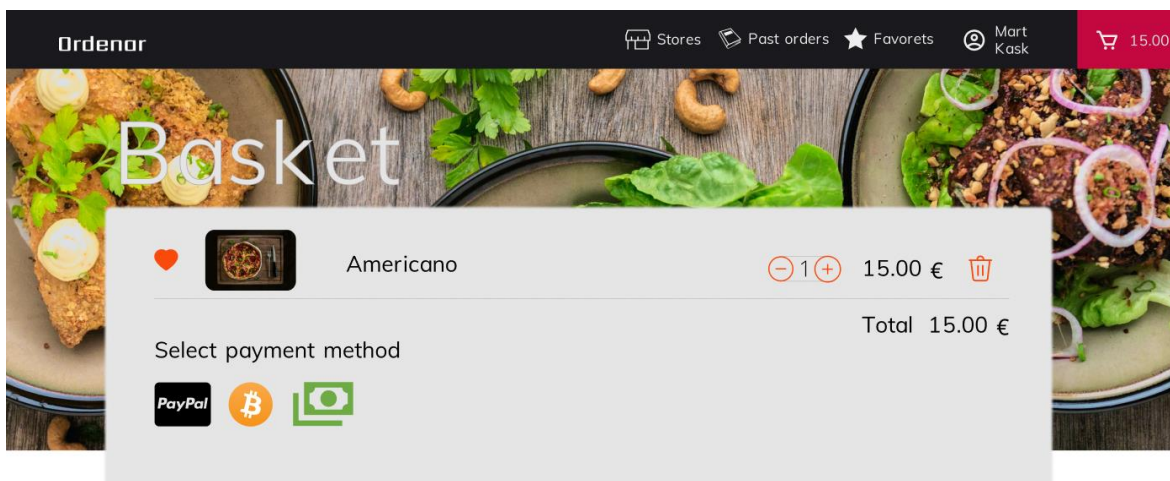Figure 4 shows what products customer wants to buy and available payment methods.

Figure 6. Customer basket view

2.6 Order status view

Figure 5 shows the approximate time when the order will be completed, order status, business location and feedback form.
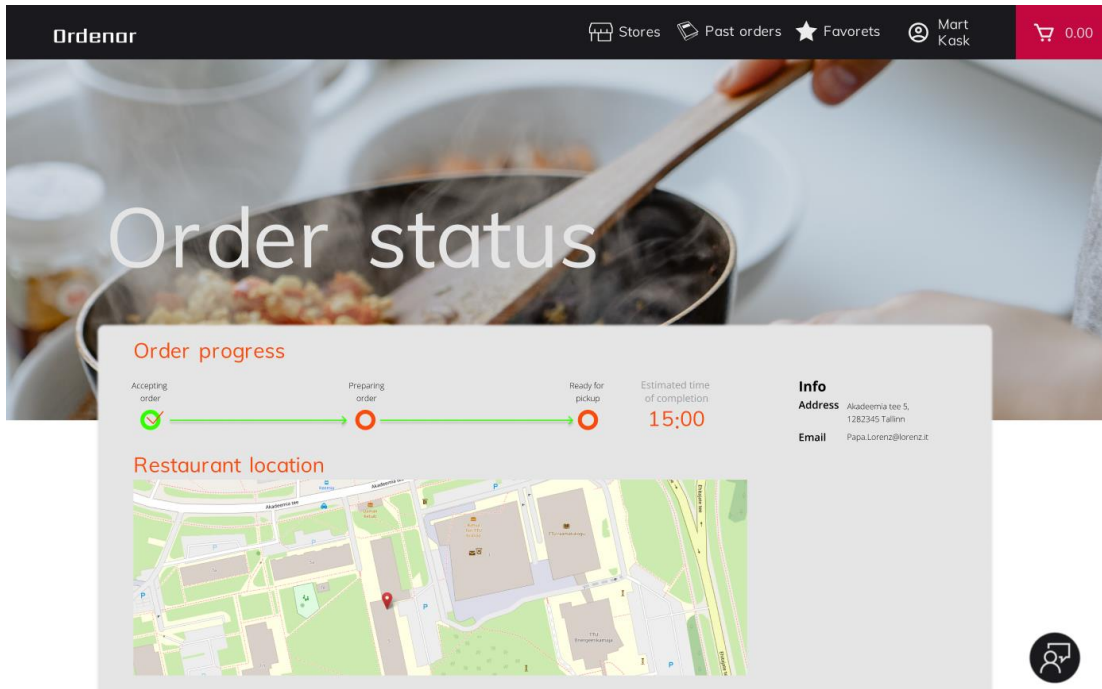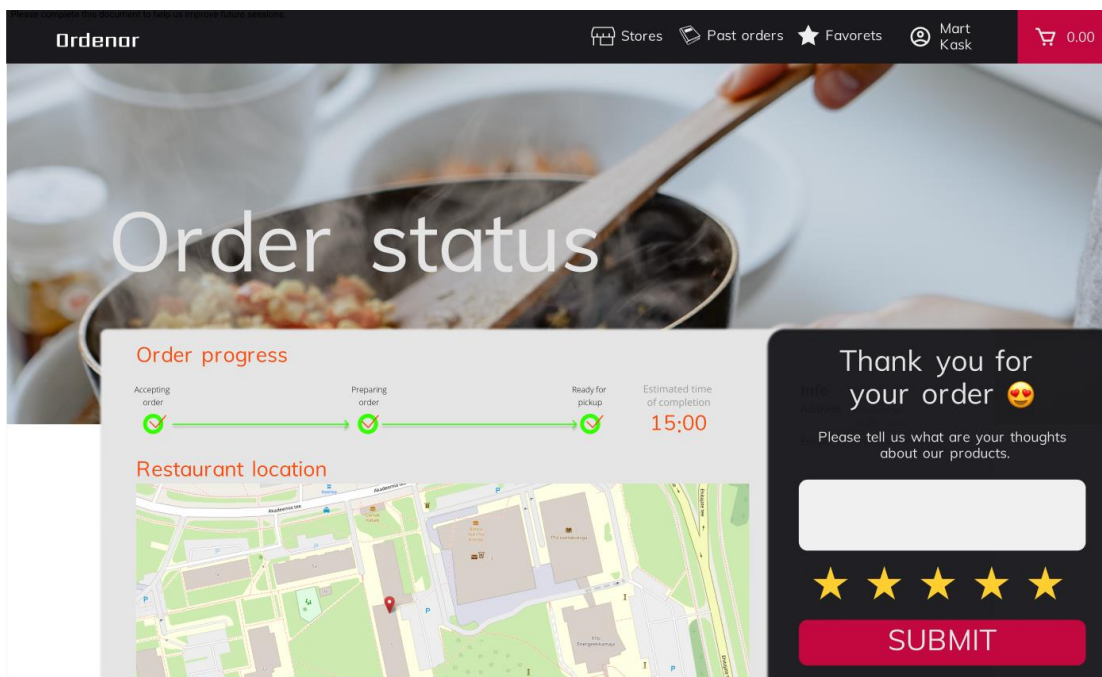

Figure 7. Order status
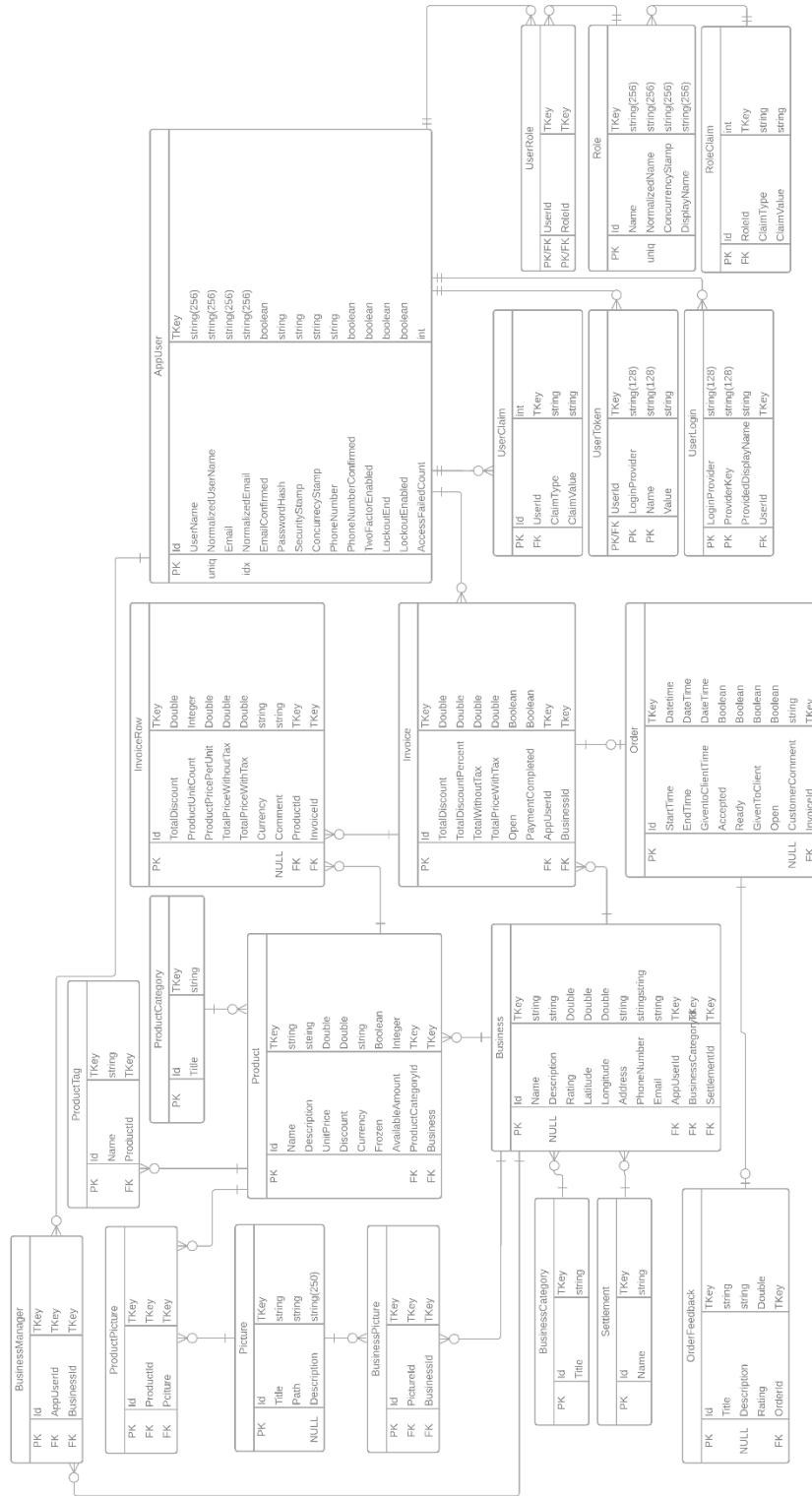

Figure 8. Order status with feedback

3 ERD schema

Figure 9. ERD schema