Design of software first laboratory work

Point of sale system

Feeling lucky

Edvinas Štaupas

Justas Stonkus

Vasaris Kaveckas

Mantas Pilipuitis

Vilnius 2022

1. Description

This document represents the main functionality of Points of Sales system management, along with key actors and their stories. The system is designed to be used by employees of a small to medium business. Main usage of it is to manage services and products. Also, this system can be used to manage employees and get statistics about clients, add bookings for services (that includes restaurant reservations).

2. Actors

- Employee – user, that interacts with the program daily, but does not have privileges to alter other employees or products information.
- Manager – user, that has privileges over employees and interacts with restricted features.

3. User activities

3.1. "Order" user activity

3.1.1. Make order

- As an employee, I want to add an existing product to a new or existing order, so I could provide information to other employees on what to do.

- As an employee, I want to remove a product from an existing order, so I could clear mistakes.

- As an employee, I want to include some additional details about the product in the order, so I could provide information to other employees if the customer does not want something that is included in the product.

3.1.2. Manage order

- As an employee, I want to change order's status, so I could change it if something changes in the process.

- As an employee, I want to see the order details, so I could check if the order is entered correctly.

- As an employee, I want to change details of the order, so I could correct it if it is incorrect.

3.2. "Pay" user activity

3.2.1. Pay by card

- As an employee, I want to be able to authenticate with a bank, so that my payment would be secure.

- As an employee, I want to be able to autofill payment details, so that the payment process would be faster.

3.2.2. Pay by cash

- As an employee, I want to be able to enter payment amount, so that I could find the left change.

3.2.3. Leave tips

- As an employee, I want to be able to select whether a customer wants to leave tips, so I could input tip amount.

3.2.4. Print financial documents

- As an employee, I want to be able to print an invoice, so I could give it to the customer who needs it.

- As an employee, I want to be able to print a check, so I could give it to the customer who needs it.

3.3. "Supervise users" user activity

3.3.1. Manage shifts

- As a manager, I want to assign/remove an employee to/from a shift, so I could set the shift schedule for employees.

- As an employee, I want to check-in for a shift and check-out of a shift, so I could start and end my workday.

3.3.2. See user information

- As a manager, I want to see the details of the employees, so I could know more information about them, like birthdays or where they live.

- As a manager, I want to see the statistics like KPI's and work hours of the employees, so I could track how well they are working and maybe change their salary according to that.

3.3.3. Manage user account

- As a manager, I want to add a new employee, so I could add new workers to the system.

- As a manager, I want to remove employees or update their details, so I could remove an employee after he gets fired or update his information like phone number or address.

3.4. "Handle products" user activity

3.4.1. Manage products

- As a manager, I want to be able to add a product to the products list, so I could widen the customer's choice

- As a manager, I want to be able to delete an existing product, so I could remove a product that is no longer needed

- As a manager, I want to be able to change the details of the existing product, so I could change it if something is wrong

3.4.2. See product info

- As an employee/manager, I want to be able to see all products, so I could see what I can offer to customers.

3.5. "Handle bookings" user activity

3.5.1. Manage bookings

- As an employee, I want to be able to submit a booking, so I could make a booking for a customer.

- As an employee, I want to be able to cancel a booking, so I could free up time when booking was canceled.

- As an employee, I want to be able to edit the booking, so I could change the details of the booking like time or people count.

3.5.2. See bookings info

- As an employee, I want to be able to see all bookings, so I could know if I am able to make more bookings or not.

- As an employee, I want to be able to see bookings for person, so I could know if this customer has made reservations or not.

3.6. "Administer customers" user activity

3.6.1. See customer information

- As an employee/manager, I want to be able to see customer details, so I could contact them if there is a problem.

- As a manager, I want to be able to see customer statistics, so I could know how much money they are spending in our place.

3.6.2. Manage customers

- As a manager, I want to be able to update or remove the customer, so I could update customers' contact information if needed or remove him from the loyalty program.

3.6.3. Contact customers

- As a manager, I want to be able to send newsletters with discounts to customers, so I could inform them about our latest news and best deals.

- As an employee/manager, I want to be able to send an invoice by email, so I could send it if customer asked.

3.7. "Handle services" user activity

3.7.1. See service information

- As an employee/manager, I want to be able to see service details, so I could know how much to charge client and how to perform the service.

- As a manager, I want to be able to see service statistics, so I could know which services are the most profitable.

3.7.2. Manage services

- As a manager, I want to be able to add a new service, so I could attract more clients.

- As a manager, I want to be able to delete a service, so I would not trick customers if the service is no longer available.

- As a manager, I want to be able to update a service, so that the service would have the latest information.

3.8. "Manage discounts" user activity

- As a manager, I want to be able to add a discount to a product, service or category, so I could make the chosen item's price lower.

- As a manager, I want to be able to remove a discount from a product, service or category, so I could end the sale of a chosen object because if our business chooses to discontinue the discount.

3.9. "Manage categories" user activity

- As a manager, I want to be able to add a category, so I could add products or services to a new category.

- As a manager, I want to be able to edit a category, so I could change details of the category.

4. Data model

Data model can be found here: app.diagrams.net