**ENERGETIKAI TECHNIKUM ÉS KOLLÉGIUM**

**Vizsgaremek**

**Consumption Management System**

**2025.**

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| **Szakma:** | **Készítették:** |
| **Szoftverfejlesztő és -tesztelő** | **Dobosi Gábor** |
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# ****Overview****

This project is a web-based application designed to manage the operations of a public bath or spa facility. Its primary functions include tracking guest consumption, handling ticket and food sales, monitoring currently present guests, and managing the user accounts of the facility's staff. The system aims to streamline daily operations, reduce administrative overhead, and enhance the guest experience.

The users of the system are the employees of the bath, including receptionists, administrators, and other staff members involved in guest services and internal operations.

# System Goals

* **Efficient Ticketing**: Sell and manage various types of entry tickets based on customizable templates.
* **Consumption Tracking**: Record purchases (e.g., food, services) made by guests during their stay.
* **Guest Monitoring**: Keep a real-time log of currently active guests inside the facility.
* **User Management**: Provide controlled access to staff members with role-specific permissions.
* **Data Logging & Analysis**: Store historical records for all guest visits, transactions, and system activities for reporting and review.

# Key Features and Modules

## 1. Authentication & Authorization

* **Login System**: Users must log in with valid credentials.
* **Role-Based Access**: Three main user types:
  + **Admin**: Full access to all system features and settings.
  + **RestaurantAssistant**: Limited access (e.g., order management, daily operations).
  + **TicketAssistant**: Limited access (e.g., ticketing, daily operations).
* Passwords are stored securely using hashing mechanisms.

## 2. Landing page

* Displays a list of **active guests** with ticket types and entry times.
* From here, staff can:
  + **View guest details**
  + **Add consumption items**
  + **Close (check out) tickets**
* Useful links for **food sales**, **ticket purchases**, and **reports** are also provided.

## 3. Ticket Management

* **Ticket Purchase**: A new guest entry is initiated by selecting a **ticket type**.

## 4. Consumption Tracking

* Allows staff to add consumption items (e.g., food, drinks, massages) to a guest's ticket.
* Items are added from a **product catalog** defined by admins.
* **Prices** and **categories** can be pre-set for each product.

## 5. Guest Checkout

* Upon leaving, the guest’s ticket is **closed**.
* The system calculates total consumption and duration.
* Option to **print a receipt** is available.
* All ticket data is stored in the **history log** for future reference.

## 6. Product Management

* Admins can define:
  + Product categories (e.g., Food, Beverage, Services)
  + Prices
* Products can be enabled/disabled dynamically.

## 7. User Management

* Admins can manage staff accounts:
  + Create new users
  + Assign admin or user roles
* Activity logs are stored for auditing purposes.

## 8. Reports & Logs

* **Ticket History**: View past guest visits, durations, and consumption.
* **Consumption Report**: Shows itemized usage of services/products.
* **Summaries**: Provides a summary of ticket sales and items sold.

## 9. Settings

* Admins can configure:
  + Ticket templates
  + Required fields per ticket type
  + Default values for timeouts, tax rates, etc.
* Configurable interface settings to match the bath’s operational model.

# Technology Overview

* **Backend**: PHP (Laravel-like structure)
* **Frontend**: Blade-like templating system with HTML/CSS/JavaScript
* **Database**: MySQL
* **Authentication**: Session-based login, hashed passwords
* **Printing**: Integration for physical ticket/receipt printing

# User Flow Example

1. **Guest Arrives** → Receptionist logs in → Selects appropriate **ticket template**
2. **Ticket Opened** → Guest enters → Optional guest photo and locker number stored
3. **Guest Consumes Services** → Staff add products to the ticket
4. **Guest Leaves** → Staff **close the ticket**, total calculated
5. **Receipt Printed**, data logged into system

# Security and Permissions

* Sensitive operations (template creation, user management) are restricted to **admins**.
* Regular users can only interact with active guest tickets, product sales, and checkouts.
* Passwords are not recoverable in plain text; recovery requires admin intervention or reset.

# Conclusion

This bath management system is a powerful tool to help facilities modernize their operations. By digitalizing ticketing, guest tracking, and consumption management, the software ensures smoother day-to-day functioning while maintaining control and oversight for administrators. Its flexibility through templates and user roles makes it adaptable to various bathhouse sizes and business models.