SEN4017 - Maintenance Scheduling System

- Egemen Eroglu 2203252
- Tarik Kucuk 1602004

Description

An application that schedules, tracks, and manages maintenance tasks for machines in a manufacturing environment.

Windows

Database Related Windows:

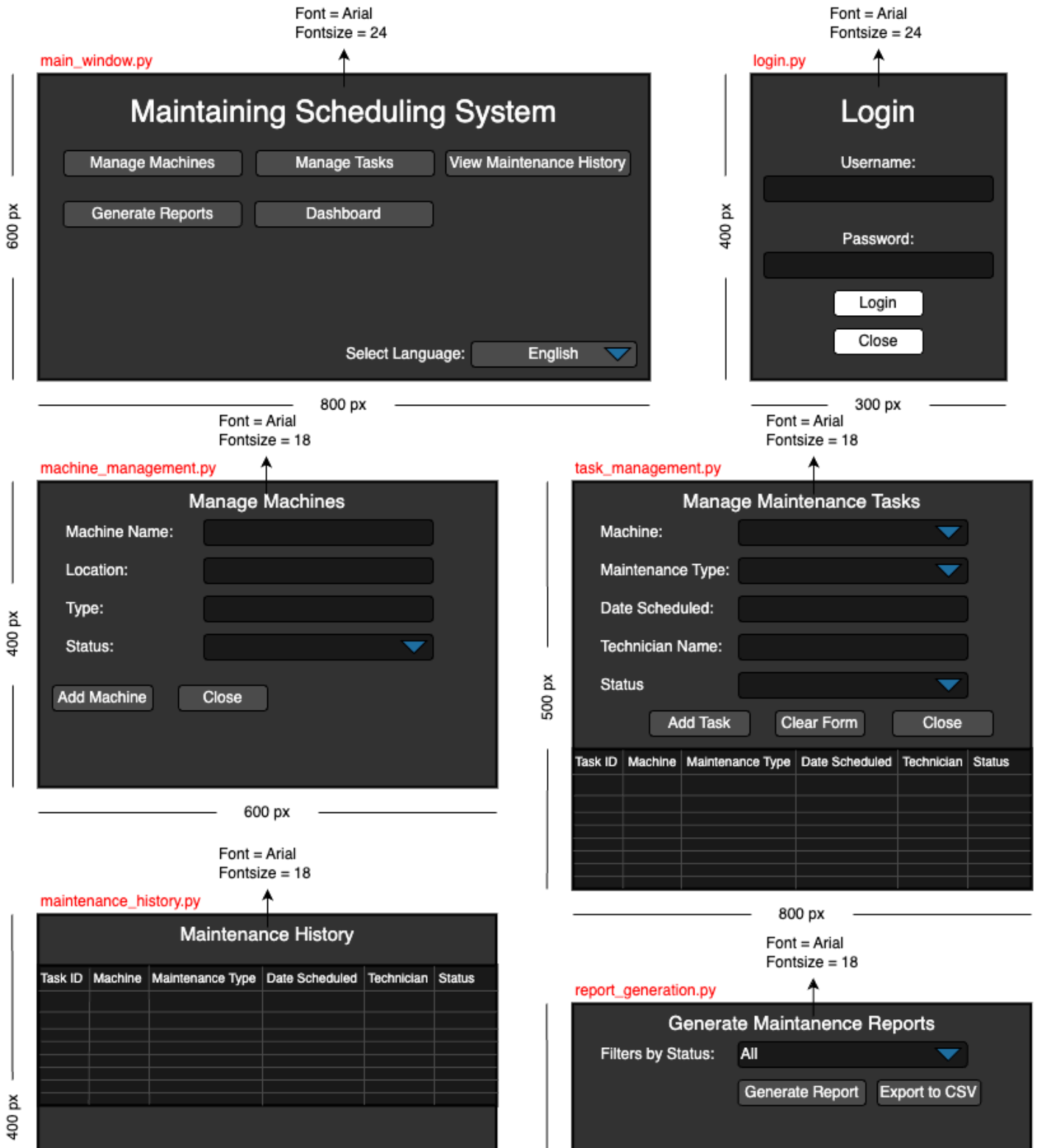
1. **Machine Management Windows**
   - Add, edit, and delete machine records
   - Fields: Machine ID, Name, Location, Type, Status
2. **Maintenance Task Management Windows**
   - Add, edit, and delete scheduled maintenance tasks
   - Fields: Task ID, Machine ID, Maintenance Type, Date, Technician Name
3. **Maintenance History Window**
   - View maintenance history records
   - Search by date, machine, or technician

Other Windows:

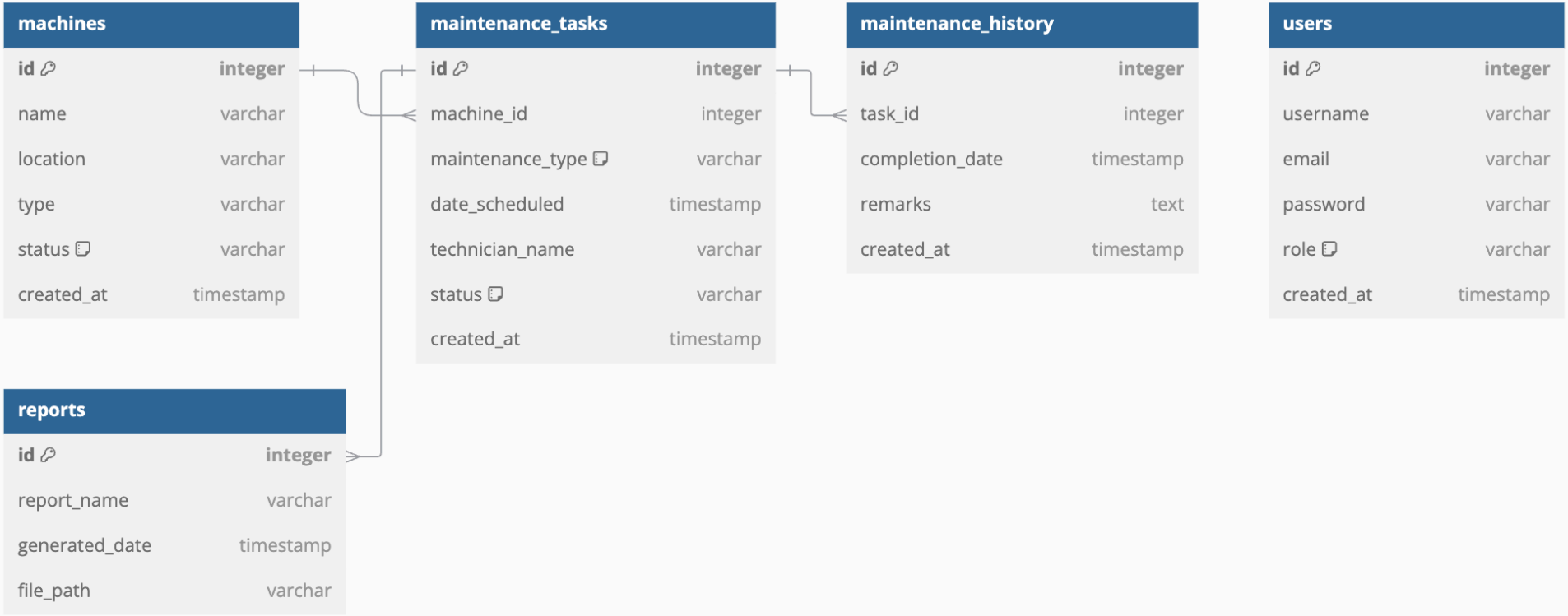
4. **Dashboard (Home Screen)**
   - Upcoming tasks, pending tasks, and recently completed tasks
5. **Report Generation Window**
   - Maintenance completion and upcoming task reports
   - Export to Excel
6. Login and Language Selection Window
   - User authentication
   - Language selection (English and Turkish)

Windows Design

User Interface Design Architecture



Database Design



Functional Requirements

1. **Form Validation**
   - Ensure all fields are filled before submission
   - Date validation and unique Machine ID checking
2. **Reporting and Visualization**
   - Generate maintenance task completion charts using Matplotlib
   - Export reports(`openpyxl` or `pandas`)
3. **Internationalization**
   - Support English and Turkish language options.