

Backend API Endpoints Documentation

Overview

This document provides a comprehensive overview of all backend API endpoints for what appears to be a business management system. The API is organized into several key modules covering customer management, inventory control, project management, invoicing, employee management, and search functionality.

API Modules

CustomerCars Module

Manages the relationship between customers and their vehicles, providing comprehensive car management functionality.

- **GET /api/CustomerCars** - Retrieves all customer car records in the system
- **GET /api/CustomerCars/{customerId}/cars** - Fetches all cars associated with a specific customer
- **GET /api/CustomerCars/{id}** - Retrieves details of a specific customer car record
- **DELETE /api/CustomerCars/{id}** - Removes a customer car record from the system
- **POST /api/CustomerCars/customers/{customerId}/cars** - Creates a new car record for a specific customer
- **PUT /api/customers/{customerId}/cars/{carId}** - Updates an existing car record for a customer
- **GET /api/CustomerCars/{carId}/history** - Retrieves the service or modification history for a specific car

CustomerContacts Module

Handles contact information management for customers, supporting multiple contacts per customer.

- **GET /api/CustomerContacts** - Lists all customer contact records
- **GET /api/CustomerContacts/{id}** - Retrieves a specific contact record by ID
- **PUT /api/CustomerContacts/{id}** - Updates an existing contact record
- **DELETE /api/CustomerContacts/{id}** - Deletes a contact record
- **GET /api/CustomerContacts/{customerId}/contacts** - Gets all contacts for a specific customer
- **POST /api/CustomerContacts/customers/{customerId}/contacts** - Creates a new contact for a customer

Customers Module

Core customer management functionality with full CRUD operations.

- **GET /api/Customers** - Retrieves all customers with pagination and filtering options
- **POST /api/Customers** - Creates a new customer record
- **GET /api/Customers/{id}** - Fetches detailed information for a specific customer
- **PUT /api/Customers/{id}** - Updates an existing customer's information
- **DELETE /api/Customers/{id}** - Removes a customer from the system

Dashboard Module

Provides key business metrics and analytics for management overview.

- **GET /api/dashboard/stats** - Returns general business statistics and KPIs
- **GET /api/dashboard/overdue-tasks** - Lists tasks that are past their due dates
- **GET /api/dashboard/Unpaid-invoices** - Shows invoices that remain unpaid

Employees Module

Comprehensive employee management with authentication, attendance tracking, and profile management.

- **GET /api/Employees** - Lists all employees in the system
- **GET /api/Employees/{id}** - Retrieves detailed information for a specific employee
- **PUT /api/Employees/{id}** - Updates basic employee information
- **DELETE /api/Employees/{id}** - Removes an employee record
- **PUT /api/Employees/{id}/FullInfo** - Updates comprehensive employee profile information
- **POST /api/Employees/Register** - Registers a new employee account
- **POST /api/Employees/Login** - Authenticates an employee login
- **POST /api/Employees/{id}/attendance** - Records attendance for a specific employee
- **GET /api/Employees/attendance/today** - Shows today's attendance records
- **GET /api/Employees/attendance/absent** - Lists employees marked as absent
- **GET /api/Employees/attendance** - Retrieves all attendance records
- **POST /api/Employees/logout** - Handles employee logout functionality

Inventories Module

Core inventory item management with group assignment capabilities.

- **GET /api/Inventories** - Lists all inventory items
- **POST /api/Inventories** - Creates a new inventory item
- **GET /api/Inventories/{id}** - Retrieves details of a specific inventory item
- **PUT /api/Inventories/{id}** - Updates an inventory item's information
- **DELETE /api/Inventories/{id}** - Removes an inventory item

- **POST /api/Inventories/AssignToGroup** - Assigns inventory items to specific groups
- **GET /api/Inventories/{id}/Groups** - Shows which groups an inventory item belongs to
- **DELETE /api/Inventories/{inventoryId}/Groups/{groupId}** - Removes an inventory item from a group

InventoryGroups Module

Manages inventory categorization through group structures.

- **GET /api/InventoryGroups** - Lists all inventory groups
- **POST /api/InventoryGroups** - Creates a new inventory group
- **GET /api/InventoryGroups/{id}** - Retrieves details of a specific inventory group
- **PUT /api/InventoryGroups/{id}** - Updates an inventory group's information
- **DELETE /api/InventoryGroups/{id}** - Deletes an inventory group

InvoiceLines Module

Manages individual line items within invoices for detailed billing.

- **GET /api/InvoiceLines** - Lists all invoice line items
- **POST /api/InvoiceLines** - Creates a new invoice line item
- **GET /api/InvoiceLines/{id}** - Retrieves a specific invoice line item
- **PUT /api/InvoiceLines/{id}** - Updates an invoice line item
- **DELETE /api/InvoiceLines/{id}** - Removes an invoice line item

Invoices Module

Complete invoice management system with PDF generation capabilities.

- **GET /api/Invoices** - Lists all invoices with filtering and pagination
- **POST /api/Invoices** - Creates a new invoice
- **GET /api/Invoices/{id}** - Retrieves detailed information for a specific invoice
- **PUT /api/Invoices/{id}** - Updates an entire invoice record
- **PATCH /api/Invoices/{id}** - Partially updates specific invoice fields
- **DELETE /api/Invoices/{id}** - Removes an invoice from the system
- **GET /api/Invoices/{id}/lines** - Retrieves all line items for a specific invoice
- **GET /api/Invoices/{id}/pdf** - Generates and returns a PDF version of the invoice

Projects Module

Project management functionality with task association capabilities.

- **GET /api/Projects** - Lists all projects in the system
- **POST /api/Projects** - Creates a new project
- **GET /api/Projects/{id}** - Retrieves detailed information for a specific project
- **PUT /api/Projects/{id}** - Updates project information

- **DELETE /api/Projects/{id}** - Removes a project
- **GET /api/Projects/{id}/tasks** - Lists all tasks associated with a specific project

Search Module

Global search functionality across different entity types.

- **GET /api/Search/search/global** - Performs a comprehensive search across all entities
- **GET /api/Search/lookup/customers** - Quick customer lookup functionality
- **GET /api/Search/lookup/employees** - Quick employee lookup functionality
- **GET /api/Search/lookup/inventory** - Quick inventory item lookup functionality

TaskLines Module

Manages detailed line items within tasks for granular task tracking.

- **GET /api/TaskLines** - Lists all task line items
- **GET /api/TaskLines/{id}** - Retrieves a specific task line item
- **PUT /api/TaskLines/{id}** - Updates a task line item
- **DELETE /api/TaskLines/{id}** - Removes a task line item
- **POST /api/TaskLines/tasks/{taskId}/Tasklines** - Creates new line items for a specific task
- **GET /api/TaskLines/ByTask/{taskId}** - Retrieves all line items for a specific task

Tasks Module

Comprehensive task management with project integration and status tracking.

- **GET /api/Tasks** - Lists all tasks with filtering options
- **POST /api/Tasks** - Creates a new task
- **GET /api/Tasks/{id}** - Retrieves detailed information for a specific task
- **PUT /api/Tasks/{id}** - Updates task information
- **DELETE /api/Tasks/{id}** - Removes a task
- **PUT /api/Tasks/{taskId}/assign-to-project** - Assigns a task to a specific project
- **PATCH /api/Tasks/{id}/status** - Updates only the status of a task
- **GET /api/Tasks/byProject/{projectId}** - Lists all tasks within a specific project
- **GET /api/Tasks/byStatus** - Retrieves tasks filtered by their current status

API Design Patterns

The API follows RESTful design principles with consistent patterns:

1. **Standard CRUD Operations:** Most entities support GET (list/detail), POST (create), PUT (update), and DELETE operations
2. **Nested Resource Access:** Related data can be accessed through nested endpoints (e.g., customer cars, project tasks)
3. **Specialized Operations:** Some endpoints provide specific business logic (e.g., PDF generation, status updates)
4. **Lookup Functionality:** Search endpoints provide quick lookup capabilities for key entities
5. **Dashboard Integration:** Dedicated dashboard endpoints provide business intelligence data

Security Considerations

The API includes authentication endpoints in the Employees module, suggesting a role-based access control system. The presence of login/logout endpoints indicates session management capabilities.

Business Domain

This API supports a service-oriented business model, likely in automotive services or similar industries, given the presence of customer cars management, project-based work tracking, inventory management, and comprehensive invoicing capabilities.