

Projekt UAIM EAutoService

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Mapa

Role - przypadki użycia (slajdy: 3,4):

Klient:

1. Przeglądanie/kupowanie części samochodowych
2. Tworzenie i modyfikacja konta
3. Umawianie nowych serwisów
4. Sprawdzanie informacji o swoich samochodach i ich historii napraw/przeglądów
5. Dodawanie samochodów

Mechanik:

1. Przeglądanie i kończenie swoich serwisów
2. Wykorzystywanie części samochodowych z magazynu do naprawy
3. Przeglądanie samochodów i ich historii
4. Przeglądanie informacji o klientach

Pracodawca:

1. Dodanie/usunięcie pracownika
2. Dodanie nowych części/kategorii/typu

Magazynier:

1. Zakup części do magazynu
2. Modyfikowanie danych o częściach

* czerwony kolor - elementy, których nie implementujemy w naszym systemie

Moduły aplikacji klienckich

ClientApplication
- Wyświetlanie informacji o żądanych danych - Dodawanie/modyfikowanie danych
Mikołaj Siedlecki

MechanicApplication
- Wyświetlanie informacji o żądanych danych - Dodawanie/modyfikowanie danych
Aleksandra Sitarczyk

Moduły kontrolerów aplikacji

ClientAppUSvc (slajd: 9)
- Przetwarzanie danych i żądań otrzymanych od aplikacji klienckiej
Patryk Jankowicz

MechanicAppUSvc (slajd: 8)
- Przetwarzanie danych i żądań otrzymanych od aplikacji klienckiej
Jan Walczak

Moduły danych

CarsDataUSvc (slajd: 6)
- Obsługa danych dotyczących samochodów
Jan Walczak

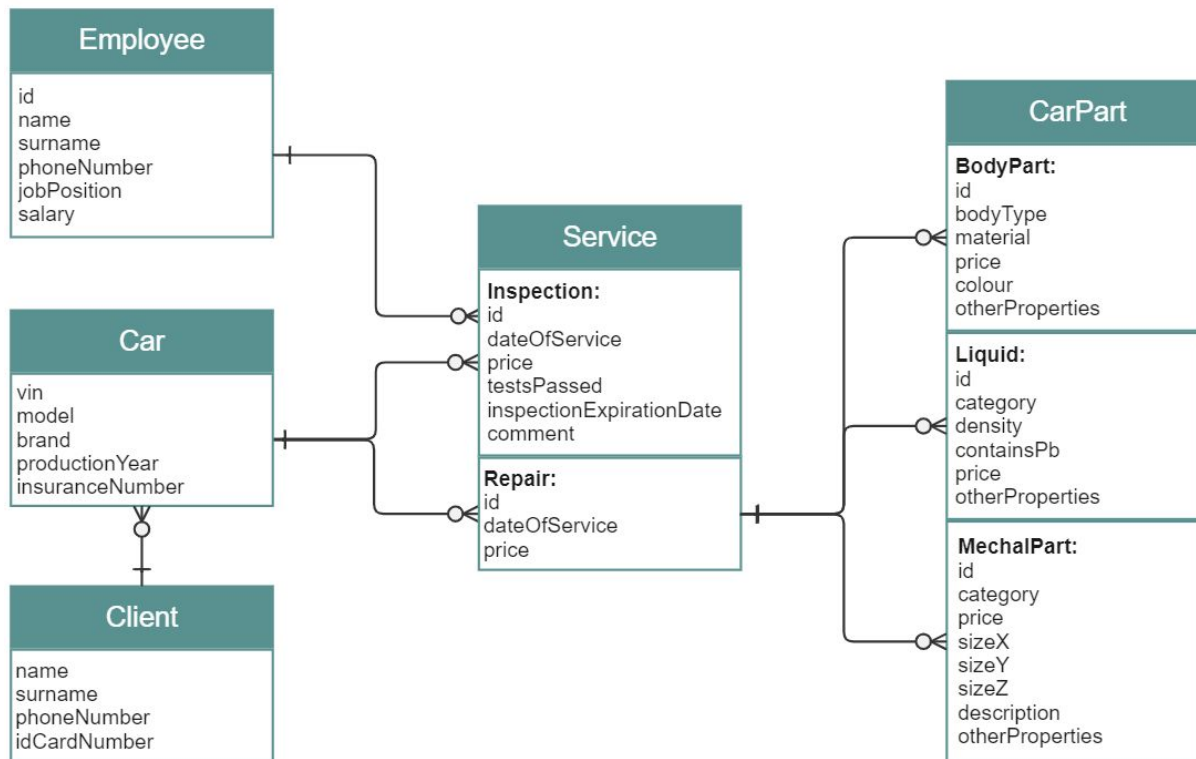
CarPartsDataUSvc (slajd: 7)
- Obsługa danych dotyczących części samochodowych
Mikołaj Siedlecki

ClientsDataUSvc (slajd: 6)
- Obsługa danych dotyczących klientów
Aleksandra Sitarczyk

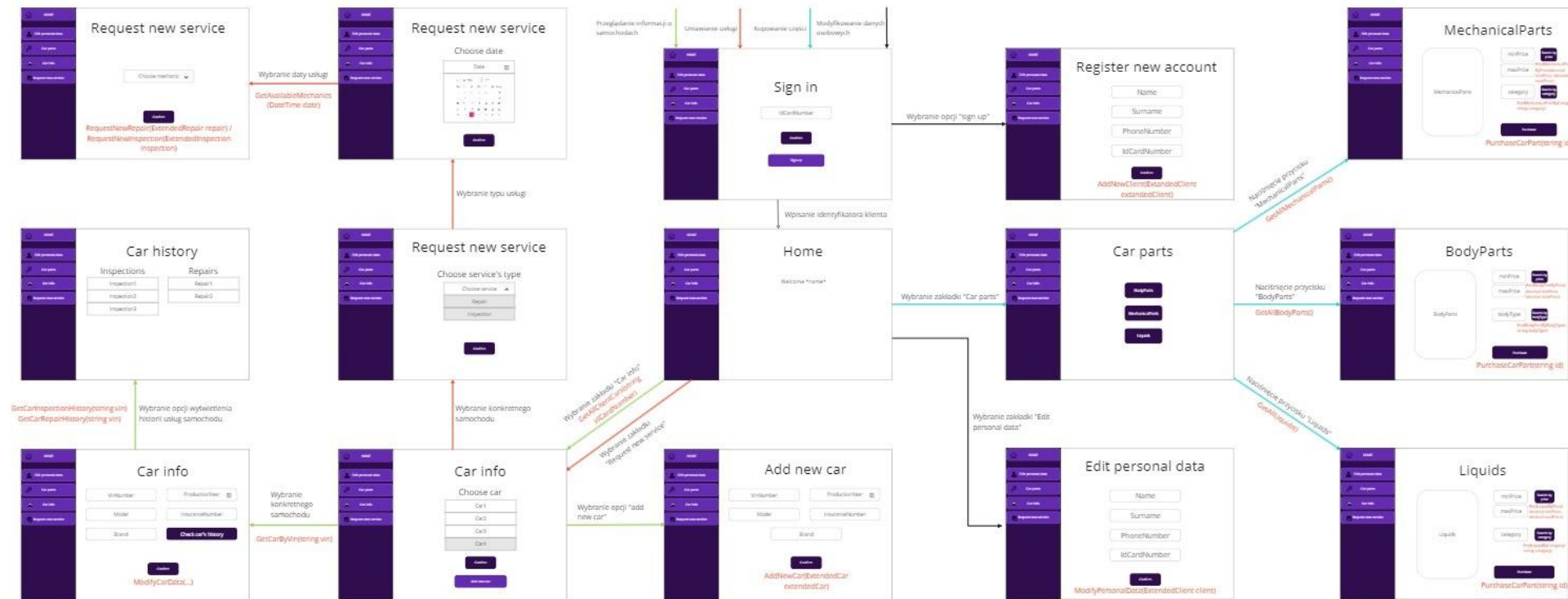
EmployeesDataUSvc (slajd: 6)
- Obsługa danych dotyczących pracowników
Patryk Jankowicz

ServicesUSvc (slajd: 7)
- Obsługa danych dotyczących serwisów
Aleksandra Sitarczyk

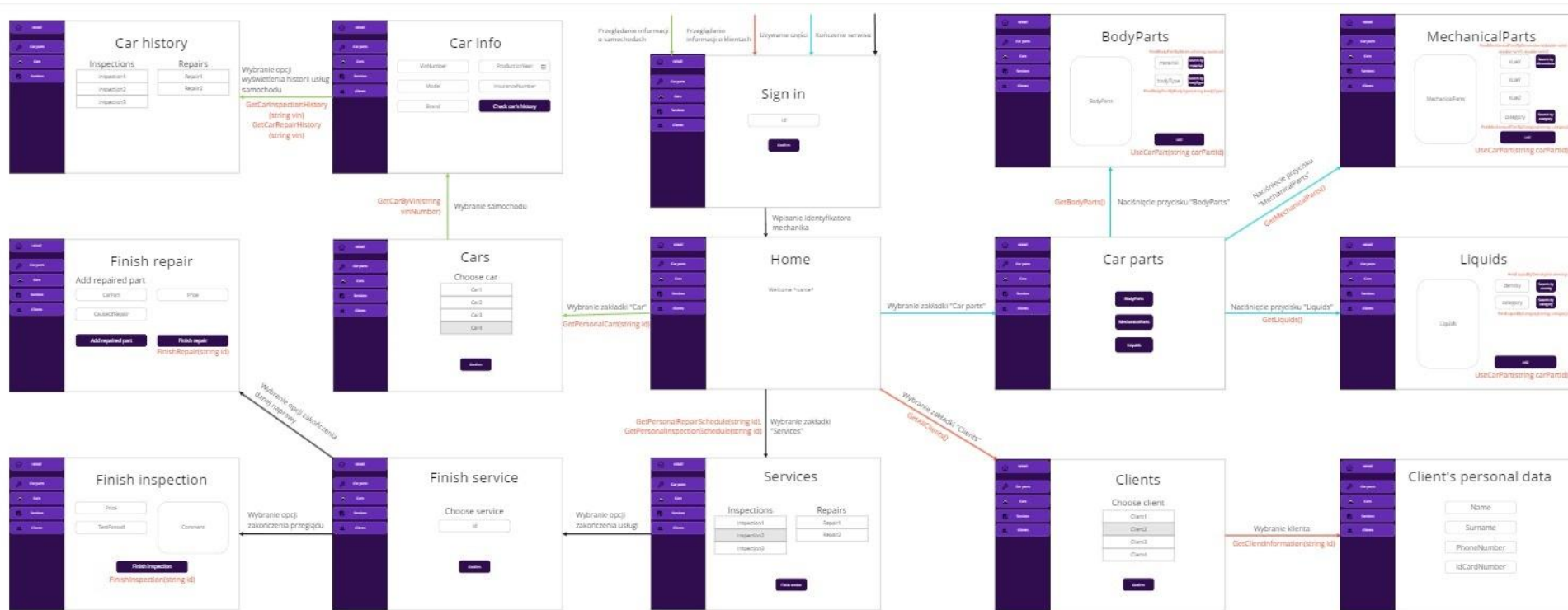
Diagram typów encji



Przypadki użycia - perspektywa klienta



Przypadki użycia - perspektywa mechanika



Ssjw.EAutoService. EmployeesDataUSvc

- List<Employee> **GetAllEmployees()**;
- void **AddEmployeeToDB**(Employee employee);
- void **RemoveEmployeeFromDB**(string id);
- Employee **GetEmployeeById**(string id);
- Employee
GetEmployeeNameSurnameSalary(string id);
- Employee
GetEmployeeNameSurnameSalaryServices(string id);
- List<Employee>
GetAllEmployeesWithSpecifiedPosition(string jobPosition);
- Employee
GetEmployeeSurnamePhoneNumber(string id);
- int **GetNumberOfEmployees()**;
- List<string> **GetEmployeeServices**(string id);
- void **RemoveEmployeeService**(string servid);
- void **AddServiceToEmployee**(string id, string service);

Employee
string: id string: name string: surname string: phoneNumber string: jobPosition string: salary List<string>: services

Ssjw.EAutoService. ClientsDataUSvc

- List<Client> **GetAllClients()**;
- void **AddClientToData**(Client client);
- void **RemoveClientFromData**(string idCardNumber);
- Client **FindClientByIdCard**(string idCardNumber);
- Client **GetClientsNameSurname**(string idCardNumber);
- Client
GetClientsSurnamePhoneNumber(string idCardNumber);
- List<string> **GetAllIds()**;

Client
string: name string: surname string: phoneNumber string: idCardNumber List<string>: vinNumbers

Ssjw.EAutoService. CarsDataUSvc

- List<Car> **GetAllCars()**;
- void **AddCar**(Car car);
- List<Car> **GetCarsByBrand**(string brand);
- Car **GetCarByVin**(string vin);
- void **RemoveCarByVin**(string vin);
- void **AddServiceToCarHistory**(string vin, string servid);
- void **RemoveServiceFromCarHistory**(string vin, string servid);

Car
string: vin string: model string: brand DateTime: productionYear string: insuranceNumber List<string>: servicesHistory

Ssjw.EAutoService.

CarPartsDataUSvc

CarPart
BodyPart: string: id string: bodyType string: material decimal: price string: colour int: couter OtherProperties: otherProperties
Liquid: string: id string: category int: density bool: containsPb decimal: price int: counter OtherProperties: otherProperties
MechalPart: string: id string: category decimal: price double: sizeX double: sizeY double: sizeZ int: counter string: description OtherProperties: otherProperties

- List<BodyPart> **FindBodyPartByBodyType**(string bodyType);
- List<BodyPart> **FindBodyPartByPrice**(decimal minPrice, decimal maxPrice);
- List<BodyPart> **FindBodyPartByMaterial**(string material);
- void **AddBodyPart**(BodyPart bodyPart);
- List<BodyPart> **GetAllBodyParts**();
- List<BodyPart > **GetAvailableAndUnavailableBodyParts**();
- BodyPart **GetBodyPartById**(string id);
- List<Liquid> **FindLiquidByCategory**(string category);
- List<Liquid> **FindLiquidByPrice**(decimal minPrice, decimal maxPrice);
- List<Liquid> **FindLiquidByDensity**(int density);
- void **AddLiquid**(Liquid liquid);
- List<Liquid> **GetAllLiquids**();
- List<Liquid> **GetAvailableAndUnavailableLiquids**();
- Liquid **GetLiquidById**(string id);
- List<MechanicalPart> **FindMechanicalPartByDimensions**(double sizeX, double sizeY, double sizeZ);
- List<MechanicalPart> **FindMechanicalPartByPrice**(decimal minPrice, decimal maxPrice);
- List<MechanicalPart> **FindMechanicalPartByCategory**(string category);
- void **AddMechanicalPart**(MechanicalPart mechanicalPart);
- List<MechanicalPart> **GetAllMechanicalParts**();
- List<MechanicalPart> **GetAvailableAndUnavailableMechanicalParts**();
- MechanicalPart **GetMechanicalPartById**(string id);
- void **RemoveCarPart**(string id);
- void **DeleteCarPart**(string id);
- int **GetNumberOfAvailableParts**(string id);
- void **ChangeNumberOfAvailableParts**(string id, int number);

Ssjw.EAutoService.

ServicesDataUSvc

- List<Inspection> **GetInspectionsByVinNumber**(string vinNumber);
- Inspection **FindInspectionById**(string id);
- void **AddInspection**(Inspection inspection);
- List<Inspection> **GetAllInspections**();
- List<Inspection> **GetAllByPassedFieldInspections**(bool passed);
- void **RemoveInspection**(string id);
- Inspection **GetInspectionEmployeeIdVinNumber**(string id);
- List<Repair> **GetRepairByVinNumber**(string vinNumber);
- Repair **FindRepairById**(string id);
- void **AddRepair**(Repair repair);
- List<Repair> **GetAllRepairs**();
- void **RemoveRepair**(string id);
- List<String> **GetServicesByEmployeeId** (string employeeId);
- List<RepairedPart> **GetRepairedPartsById**(string id);
- Repair **GetRepairEmployeeIdVinNumber**(string id);
- void **CompleteInspection** (string id, double price, bool testsPassed, string comment);
- void **CompleteRepair** (string id, double price, List<RepairedPartDto> repairedParts);

Service	
Inspection: string: id DateTime: dateOfService string: employeeId string: vinNumber double: price bool: testsPassed DateTime: inspectionExpirationDate string: comment	Repair: string: id DateTime: dateOfService string: employeeId string: vinNumber double: price List<RepairedPart>: repairedParts

Ssjw.EAutoService.MechanicAppUSvc

GetPersonalCars(string id)

1. EmployeesDataUSvcClient - GetEmployeeById(string id)
2. ServicesDataUSvcClient - GetServicesByEmployeeId(string employeeId)
3. CarsDataUSvcClient - GetCarByVin(string vin)

GetCarByVinNumber(string vinNumber)

1. CarsDataUSvcClient - GetCarByVin(string vin)

GetCarInspectionHistory(string vin)

1. CarsDataUSvcClient - GetCarByVin(string vin)
2. ServicesDataUSvcClient - FindInspectionById(string id)

GetCarRepairHistory(string vin)

1. CarsDataUSvcClient - GetCarByVin(string vin)
2. ServicesDataUSvcClient - FindRepairById(string id)

GetPersonalRepairSchedule(string id)

1. EmployeesDataUSvcClient - GetEmployeeServices(string id)
2. ServicesDataUSvcClient - FindRepairById(string id)

GetPersonalInspectionSchedule(string id)

1. EmployeesDataUSvcClient - GetEmployeeServices(string id)
2. ServicesDataUSvcClient - FindInspectionById(string id)

FinishRepair(string id, double price, List<RepairedPartDto> repairedParts)

1. ServicesDataUSvcClient - CompleteRepair(string id, double price, List<RepairedPartDto> repairedParts)
2. CarsDataUSvcClient - AddServiceToCarHistory(string vin, string servid)
3. EmployeesDataUSvcClient - RemoveEmployeeService(string servid)

FinishInspection(string id, double price, bool testsPassed, string comment)

1. ServicesDataUSvcClient - CompleteInspection(string id, double price, bool testsPassed, string comment)
2. CarsDataUSvcClient - AddServiceToCarHistory(string vin, string servid)
3. EmployeesDataUSvcClient - RemoveEmployeeService(string servid)

GetAllClients()

1. ClientsDataUSvcClient - GetAllClients()

GetClientInformation(string idCardNumber)

1. ClientsDataUSvcClient - FindClientByIdCard(string idCardNumber)

GetAllMechanicalParts()

1. CarPartsDataUSvcClient - GetAllMechanicalParts()

GetAllBodyParts()

1. CarPartsDataUSvcClient - GetAllBodyParts()

GetAllLiquids()

1. CarPartsDataUSvcClient - GetAllLiquids()

FindBodyPartByMaterial(string material)

1. CarPartsDataUSvcClient - FindBodyPartByMaterial(string material)

FindBodyPartByBodyType(string bodyType)

1. CarPartsDataUSvcClient - FindBodyPartByBodyType(string bodyType)

UseCarPart(string carPartId)

1. CarPartsDataUSvcClient - RemoveCarPart(string id)

FindMechanicalPartByDimensions(double sizeX, double sizeY, double sizeZ)

1. CarPartsDataUSvcClient - FindMechanicalPartByDimensions(double sizeX, double sizeY, double sizeZ)

FindMechanicalPartByCategory(string category)

1. CarPartsDataUSvcClient - FindMechanicalPartByCategory(string category)

FindLiquidByDensity(int density)

1. CarPartsDataUSvcClient - FindLiquidByDensity(int density)

FindLiquidByCategory(string category)

1. CarPartsDataUSvcClient - FindLiquidByCategory(string category);

MechanicAppUSvc

ExtendedBodyPart
ExtendedLiquid
ExtendedMechanicalPart
ExtendedOtherProperties
ExtendedProperty
ExtendedInspection
ExtendedRepair
ExtendedRepairedPart
ExtendedCar
ExtendedClient
ExtendedEmployee

Ssjw.EAutoService.ClientAppUSvc

GetAllClientCar(string idCardNumber)

1. ClientsDataUSvcClient - FindClientByIdCard(string idCardNumber)
2. CarsDataUSvcClient - GetCarByVin(string vin)

AddCar(ExtendedCar ExtendedCar)

1. CarsDataUSvcClient - AddNewCar(CarDto car)

GetCarByVin(string vin)

1. CarsDataUSvcClient - GetCarInformation(string vin)

GetCarIspectionHistory(string vin)

1. CarsDataUSvcClient - GetCarByVin(string vin)
2. ServicesDataUSvcClient - FindInspectionById(string id)

GetCarRepairHistory(string vin)

1. CarsDataUSvcClient - GetCarByVin(string vin)
2. ServicesDataUSvcClient - FindRepairById(string id)

ModifyCarData(...)

1. CarsDataUSvcClient - RemoveCarByVin(string vin)
2. CarsDataUSvcClient - AddCar(CarDto car)

GetAvailableMechanincs(DateTime date)

1. EmployeesDataUSvcClient - GetAllEmployees()
2. ServicesDataUSvcClient - Find<Service>ById()

RequestNewRepair(ExtendedRepair repair)

1. ServicesDataUSvcClient - AddRepair(RepairDto repair)
2. EmployeesDataUSvcClient - AddServiceToEmployee(string id, string service)

RequestNewInspection(ExtendedInspection inspection)

1. ServicesDataUSvcClient - AddInspection(InspectionDto inspection)
2. EmployeesDataUSvcClient - AddServiceToEmployee(string id, string service)

AddNewClient(ExtendedClient client)

1. ClientDataUSvcClient - AddClientToData(ClientDto clientDto)

GetAllMechanicalParts()

1. CarPartsDataUSvcClient - GetAllMechanicalParts()

GetAllBodyParts()

1. CarPartsDataUSvcClient - GetAllBodyParts()

GetAllLiquids()

1. CarPartsDataUSvcClient - GetAllLiquids()

FindMechanicalPartByPrice(decimal minPrice, decimal maxPrice)

1. CarPartsDataUSvcClient - FindMechanicalPartByPrice(decimal minPrice, decimal maxPrice)

FindMechanicalPartByCategory(string category)

1. CarPartsDataUSvcClient - FindMechanicalPartByCategory(string category)

FindBodyPartByPrice(decimal minPrice, decimal maxPrice)

1. CarPartsDataUSvcClient - FindBodyPartByPrice(decimal minPrice, decimal maxPrice)

FindBodyPartByBodyType(string bodyType)

1. CarPartsDataUSvcClient - FindBodyPartByBodyType(string bodyType)

FindLiquidByPrice(decimal minPrice, decimal maxPrice)

1. CarPartsDataUSvcClient - FindLiquidByPrice(decimal minPrice, decimal maxPrice)

FindLiquidByCategory(string category)

1. CarPartsDataUSvcClient - FindLiquidByCategory(string category)

PurchaseCarPart(string id)

1. CarPartsDataUSvcClient - RemoveCarPart(string id)

ModifyPersonalData(ExtendedClient client)

1. ClientsDataUSvcClient - AddClientToData(ClientDto client)
2. ClientsDataUSvcClient - RemoveClientFromData(string idCardNumber);

GetPersonalInformation(string id)

1. ClientDataUSvcClient - FindClientById(string id)

ClientAppUSvc

ExtendedBodyPart
ExtendedLiquid
ExtendedMechanicalPart
ExtendedOtherProperties
ExtendedProperty
ExtendedInspection
ExtendedRepair
ExtendedRepairedPart
ExtendedCar
ExtendedClient
ExtendedEmployee

II ETAP



Ssjw.EAutoService. ClientApplication

- void LoadRepairsByVinList();
- void LoadBodyPartsList();
- void LoadBodyPartsByPrice();
- void LoadBodyPartsByBodyType();
- void LoadMechanicalPartsByPrice();
- void LoadMechanicalPartsByCategory();
- void LoadMechanicalPartsList();
- void LoadLiquidsByPrice();
- void LoadLiquidsByCategory();
- void LoadLiquidsList();
- void LoadInspectionsByVinList();
- void LoadCarsByIdCardNumber();
- void LoadMechanicsByDate();
- void SaveRequestService();
- void SaveNewClient();
- void SaveNewCar();
- void LoadPersonalData();
- void SaveChangedPersonalData();

ClientApplication

ExtendedBodyPartDto
ExtendedLiquidDto
ExtendedMechanicalPartDto
ExtendedOtherPropertiesDto
ExtendedPropertyDto
ExtendedInspectionDto
ExtendedRepairDto
ExtendedRepairedPartDto
ExtendedCarDto
ExtendedClientDto
ExtendedEmployeeDto

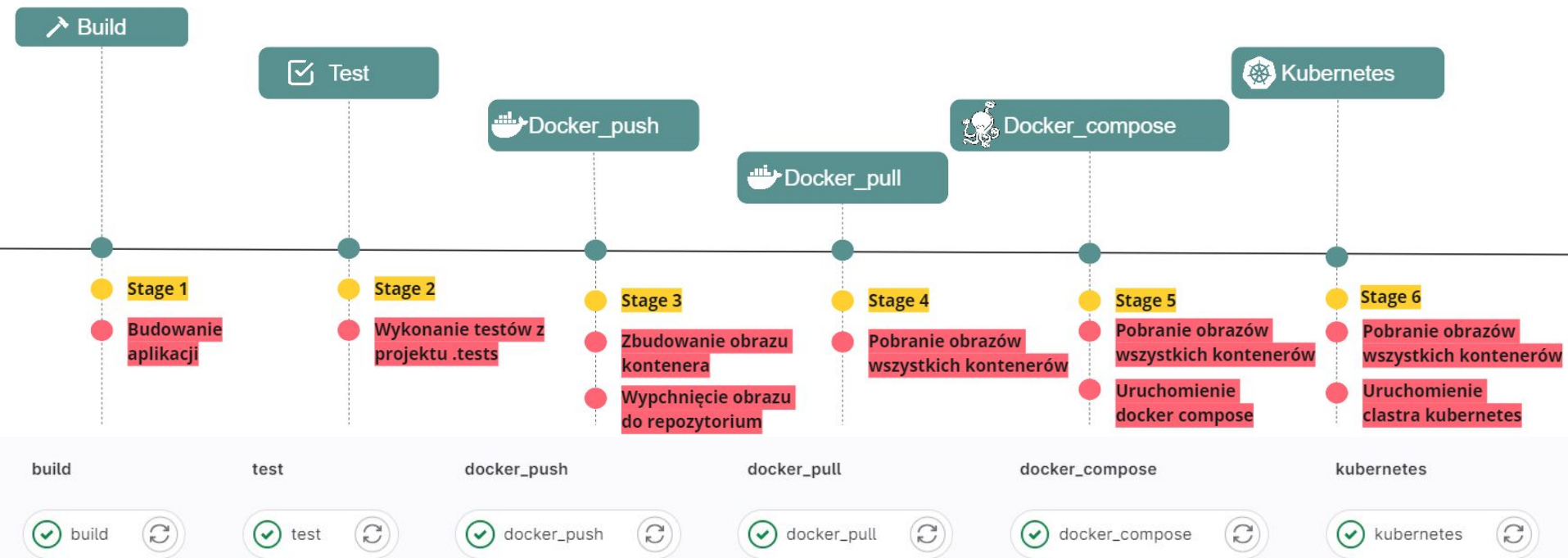
Ssjw.EAutoService. MechanicApplication

- void GetPersonalCars();
- void SignIn();
- void LoadCarsHistory();
- void LoadPersonalSchedule();
- void LoadRepairedParts();
- void LoadAllBodyParts();
- void LoadAllMechanicalParts();
- void FinishInspection();
- void FinishRepair();
- void AddRepairedPart();
- void UseCarPart();
- void FindBodyPartByMaterial();
- void FindBodyPartByBodyType();
- void FindMechanicalPartByDimensions();
- void FindMechanicalPartByCategory();
- void LoadAllLiquids();
- void FindLiquidByDensity();
- void FindLiquidByCategory();
- void LoadAllClients();

MechanicApplication

ExtendedBodyPartDto
ExtendedLiquidDto
ExtendedMechanicalPartDto
ExtendedOtherPropertiesDto
ExtendedPropertyDto
ExtendedInspectionDto
ExtendedRepairDto
ExtendedRepairedPartDto
ExtendedCarDto
ExtendedClientDto
ExtendedEmployeeDto

Gitlab - CI/CD pipeline



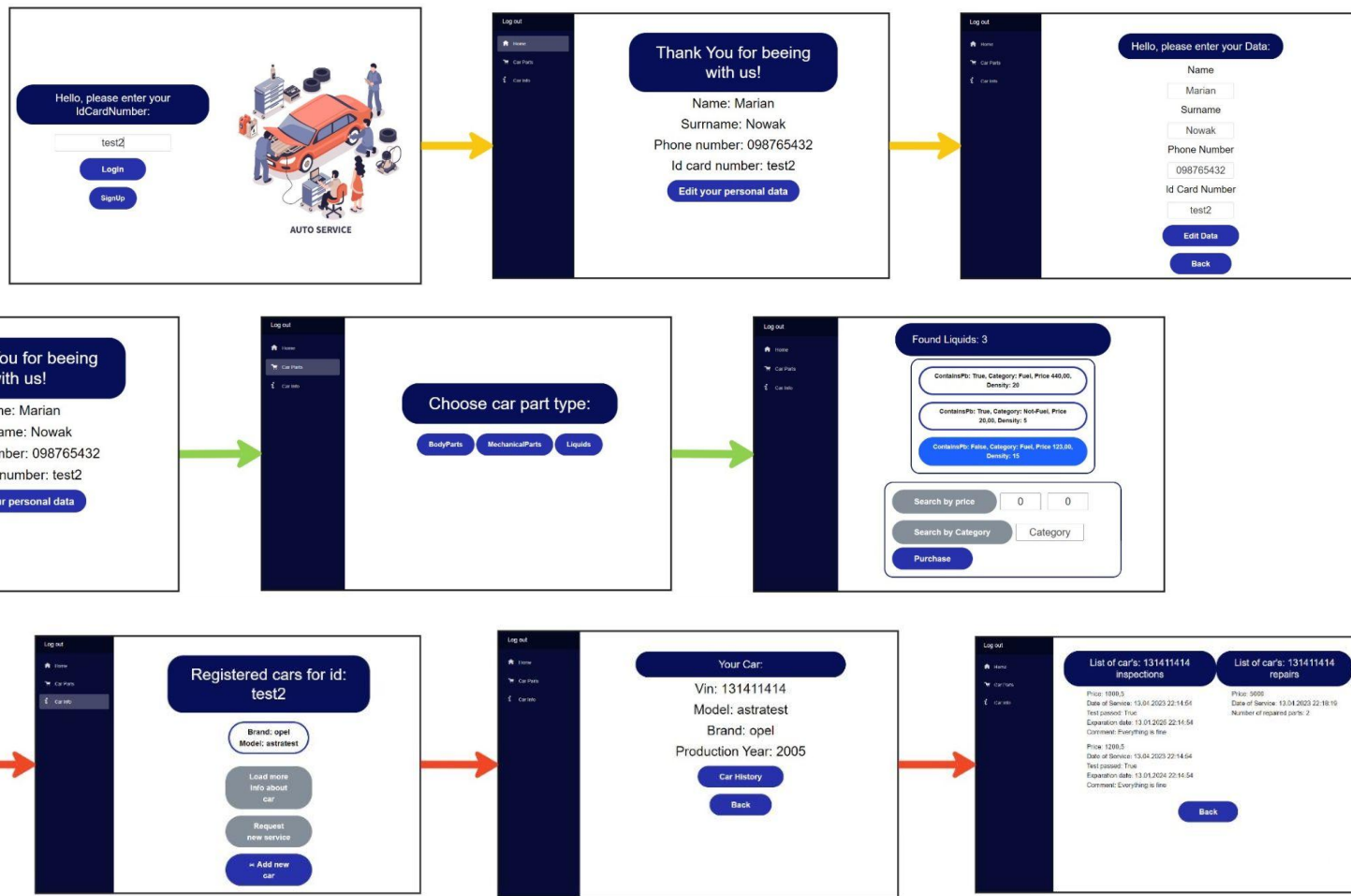
Przykładowy plik dockerfile

Docker-compose: porty 5000(mechanic), 5001(client)

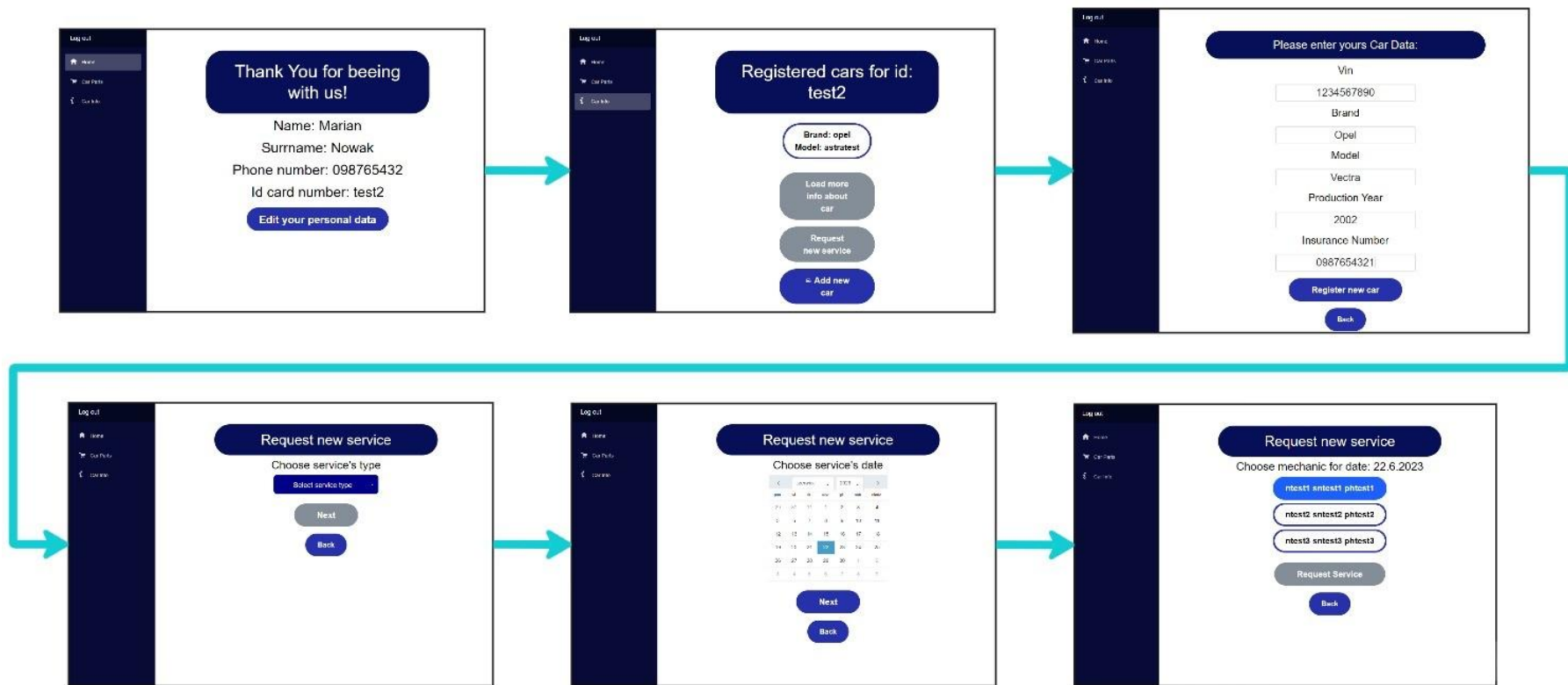
**Kubernetes: mechanicApplication port 30080,
clientApplication port 30081,**

```
FROM mcr.microsoft.com/dotnet/aspnet:6.0 AS base
WORKDIR /app
EXPOSE 80
EXPOSE 443
FROM mcr.microsoft.com/dotnet/sdk:6.0 AS build
WORKDIR /src
COPY ["Ssjw.EAutoService.WebClientApplication.BlazorServer/Ssjw.EAutoService.WebClientApplication.BlazorServer.csproj",
"Ssjw.EAutoService.WebClientApplication.BlazorServer/"]
COPY ["Ssjw.EAutoService.ClientApplication.Controller/Ssjw.EAutoService.ClientApplication.Controller.csproj", "Ssjw.EAutoService.ClientApplication.Controller/"]
COPY ["Ssjw.EAutoService.ClientApplication.Utilities/Ssjw.EAutoService.ClientApplication.Utilities.csproj", "Ssjw.EAutoService.ClientApplication.Utilities/"]
COPY ["Ssjw.EAutoService.ClientApplication.Model/Ssjw.EAutoService.ClientApplication.Model.csproj", "Ssjw.EAutoService.ClientApplication.Model/"]
COPY ["Ssjw.EAutoService.ClientApplication.Tests/Ssjw.EAutoService.ClientApplication.Tests.csproj", "Ssjw.EAutoService.ClientApplication.Tests/"]
COPY ["Ssjw.EAutoService.ClientAppUSvc.RestClient/Ssjw.EAutoService.ClientAppUSvc.RestClient.csproj", "Ssjw.EAutoService.ClientAppUSvc.RestClient/"]
COPY ["Ssjw.EAutoService.ClientAppUSvc.ServiceFacadeModel/Ssjw.EAutoService.ClientAppUSvc.ServiceFacadeModel.csproj",
"Ssjw.EAutoService.ClientAppUSvc.ServiceFacadeModel/"]
RUN dotnet restore Ssjw.EAutoService.WebClientApplication.BlazorServer/Ssjw.EAutoService.WebClientApplication.BlazorServer.csproj
COPY . .
RUN dotnet build "Ssjw.EAutoService.WebClientApplication.BlazorServer/Ssjw.EAutoService.WebClientApplication.BlazorServer.csproj" -c Release -o /app/build
FROM build AS publish
RUN dotnet publish "Ssjw.EAutoService.WebClientApplication.BlazorServer/Ssjw.EAutoService.WebClientApplication.BlazorServer.csproj" -c Release -o /app/publish
FROM base AS final
WORKDIR /app
COPY --from=publish /app/publish .
ENTRYPOINT ["dotnet", "Ssjw.EAutoService.WebClientApplication.BlazorServer.dll"]
```

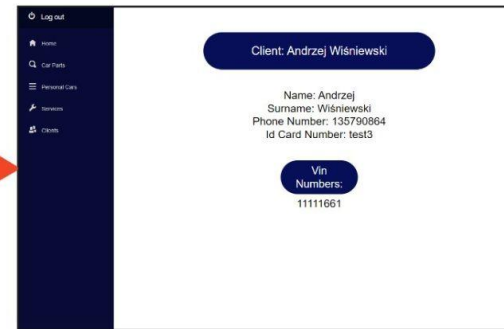
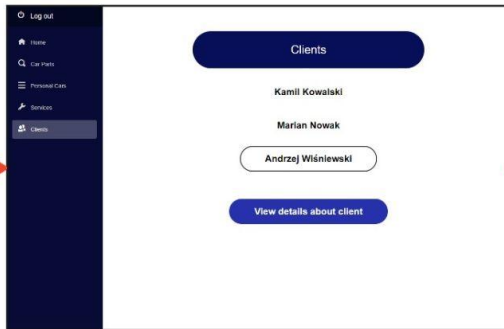
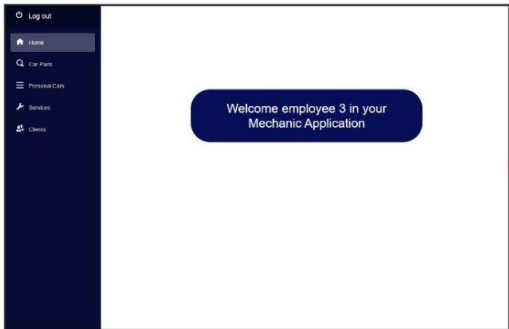
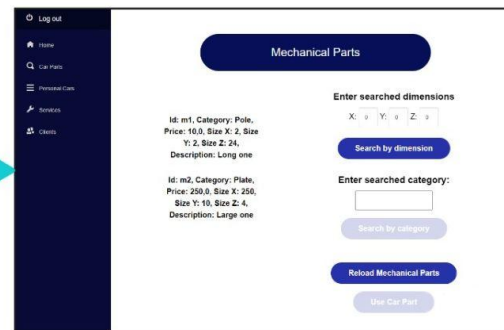
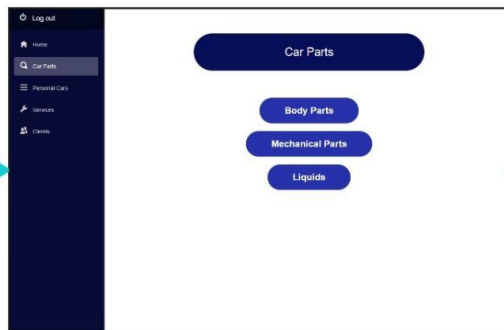
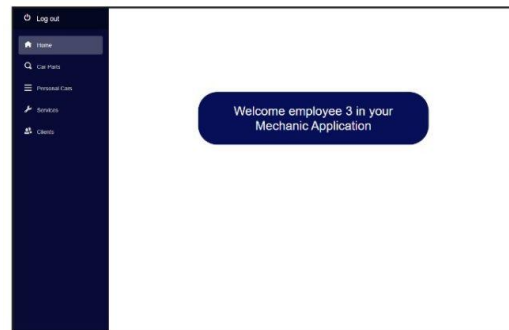
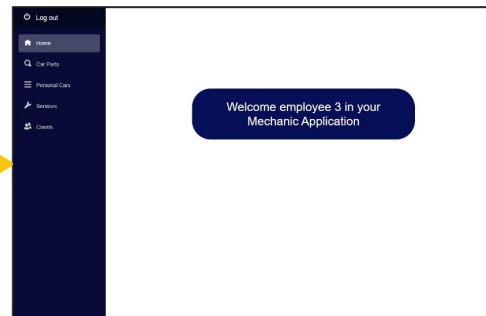
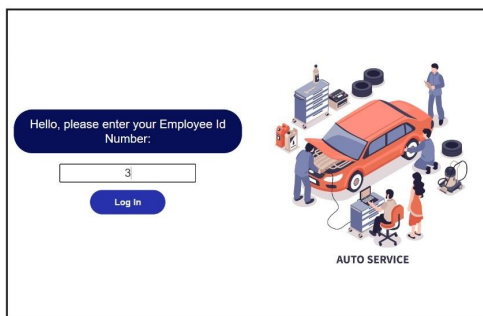
Client Application



żółty - logowanie i edycja danych; **zielony** - przeglądanie części samochodowych; **czzerwony** - przeglądanie informacji o samochodach



Mechanic Application



żółty - logowanie; **niebieski** - przeglądanie części samochodowych; **czerwony** - przeglądanie informacji o klientach

Log out

Home

Car Parts

Personal Cars

Services

Clients

Car's: 11111661 history

Repairs:

ID: i4 Date of service: 13.04.2023
22.18.76 Employee id: 3 Vin number: 11111661 Price: 2000
Required parts:
Car parts id: i2 Cause of repair: broken
Car parts id: i3 Cause of repair: broken

Inspections:

ID: i5 Date of service: 13.04.2023
22.18.76 Employee id: 3 Vin number: 11111661 Price: 5000.5 Inspection completed date: 13.04.2023 14:24.8
Tests passed: True Comment: Lights not working

Required parts:
Car parts id: i2 Cause of repair: broken

ID: i6 Date of service: 13.04.2023
22.18.76 Employee id: 3 Vin number: 11111661 Price: 870000
Required parts:
Car parts id: i3 Cause of repair: broken

Log out

Home

Car Parts

Personal Cars

Services

Clients

Detail information about car: 11111661

Vin number: 11111661
Model: octavia
Brand: skoda
Production year: 2012
Insurance number: 89991100561

View car's history

Log out

Home

Car Parts

Personal Cars

Services

Clients

Employee 3 cars:

Vin 11111661

Vin 131411414

View detail information

Log out

Home

Car Parts

Personal Cars

Services

Clients

Welcome employee 3 in your Mechanic Application

Log out

Home

Car Parts

Personal Cars

Services

Clients

Finish Inspection i4

Price:

100

Tests Passed:

Passed Failed

Comment:

Everything is fine

Finish inspection

Log out

Home

Car Parts

Personal Cars

Services

Clients

Employee's 2 services

Repairs:

ID: i4 Date of service: 13.04.2023 13:18:10
Employee id: 2 Vin number: 131411414 Price: 1000
Required parts:
Car parts id: i2 Cause of repair: broken

Inspections:

ID: i5 Date of service: 13.04.2023 14:14:16
Employee id: 2 Vin number: 11111661 Price: 4000.5 Inspection completed date: 13.04.2023 14:16:16
Tests passed: True Comment: Lights not working

Required parts:
Car parts id: i2 Cause of repair: broken

ID: i6 Date of service: 13.04.2023 14:14:16
Employee id: 2 Vin number: 11111661 Price: 1000.5 Inspection completed date: 13.04.2023 14:14:16
Tests passed: True Comment: Everything is fine

Finish service

Log out

Home

Car Parts

Personal Cars

Services

Clients

Choose service

Inspection: i3

Inspection: i4

Repair: r4

czarny - przeglądanie informacji o serwisach i kończenie serwisów;
zielony - przeglądanie informacji o samochodach