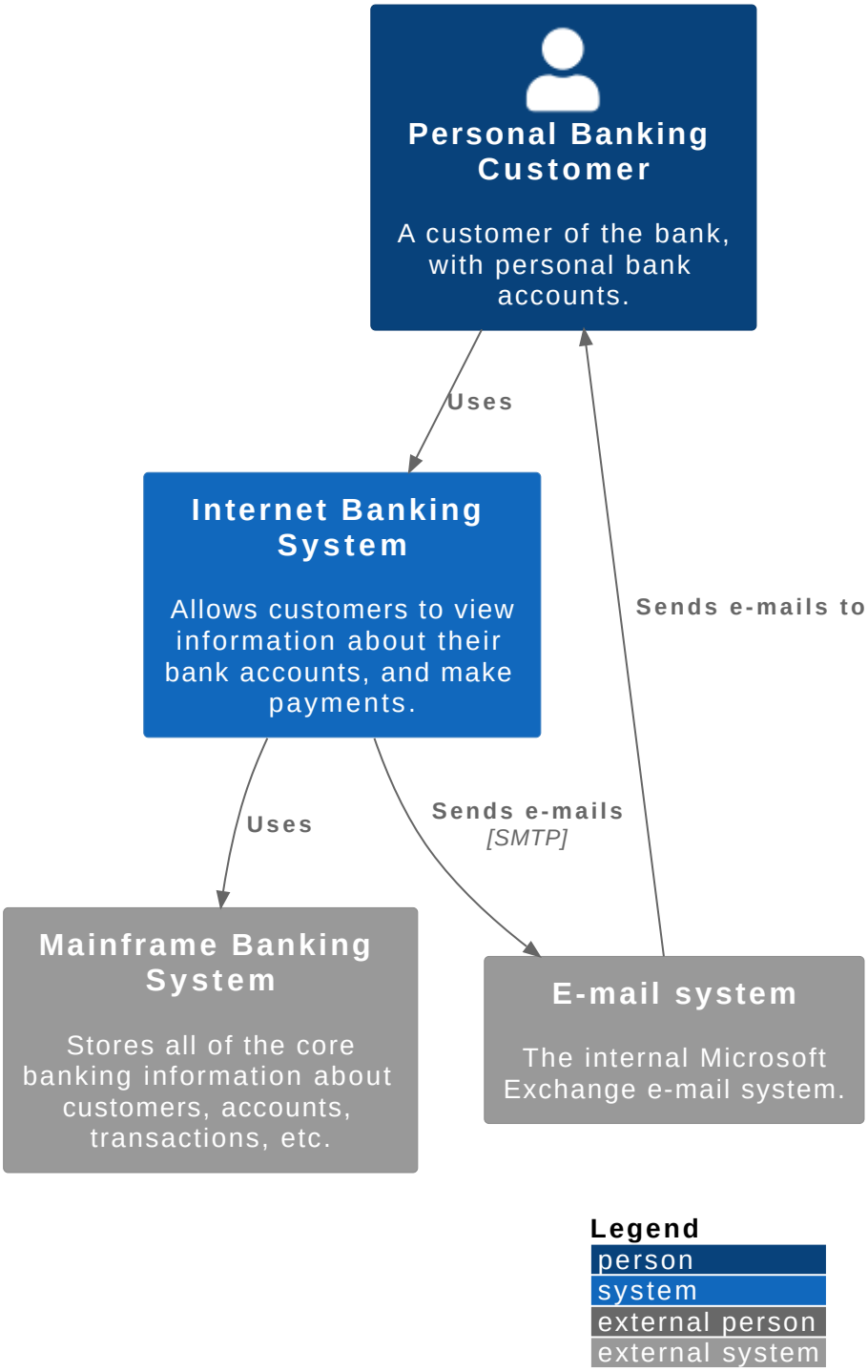
# sad



## Overview




**Level 1: System Context diagram**

A System Context diagram is a good starting point for diagramming and documenting a software system, allowing you to step back and see the big picture. Draw a diagram showing your system as a box in the centre, surrounded by its users and the other systems that it interacts with.

Detail isn't important here as this is your zoomed out view showing a big picture of the system landscape. The focus should be on people (actors, roles, personas, etc) and software systems rather than technologies, protocols and other low-level details. It's the sort of diagram that you could show to non-technical people.

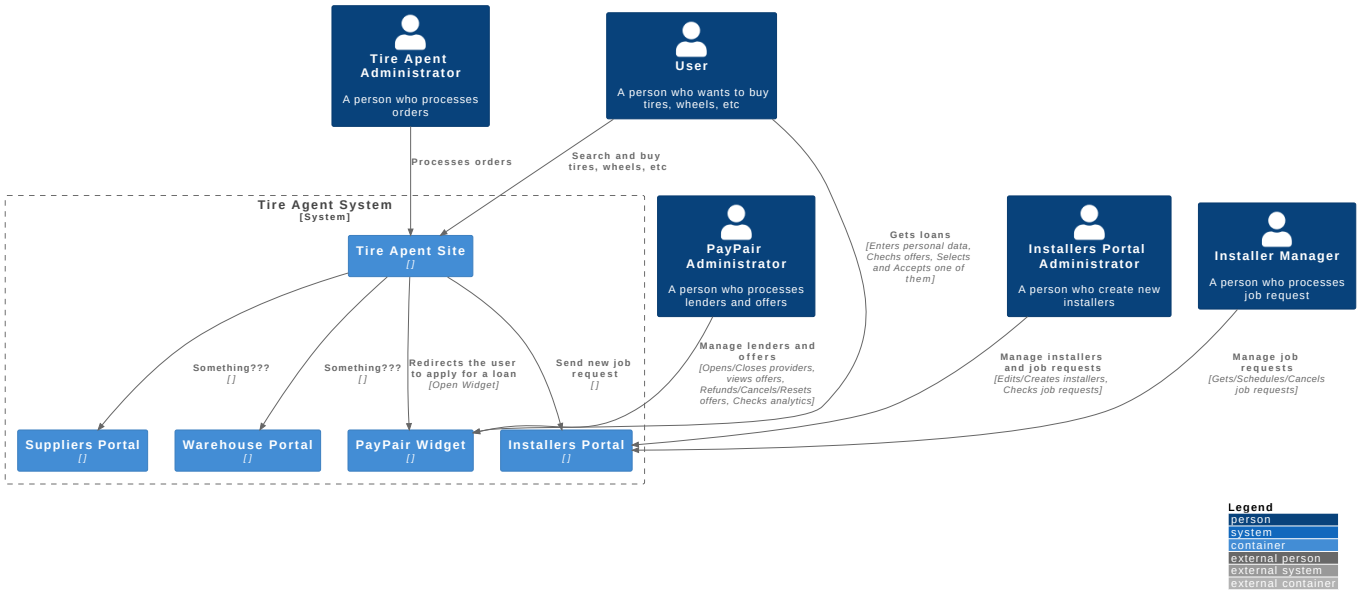
**Scope**: A single software system.

**Primary elements**: The software system in scope. Supporting elements: People (e.g. users, actors, roles, or personas) and software systems (external dependencies) that are directly connected to the software system in scope. Typically these other software systems sit outside the scope or boundary of your own software system, and you don't have responsibility or ownership of them.

**Intended audience**: Everybody, both technical and non-technical people, inside and outside of the software development team.

## 1.1.1 Diagram for all system

`/1.1.1 Diagram for all system`




**Level 2: Container diagram**

Once you understand how your system fits in to the overall IT environment, a really useful next step is to zoom-in to the system boundary with a Container diagram. A "container" is something like a server-side web application, single-page application, desktop application, mobile app, database schema, file system, etc. Essentially, a container is a separately runnable/deployable unit (e.g. a separate process space) that executes code or stores data.

The Container diagram shows the high-level shape of the software architecture and how responsibilities are distributed across it. It also shows the major technology choices and how the containers communicate with one another. It's a simple, high-level technology focussed diagram that is useful for software developers and support/operations staff alike.

**Scope**: A single software system.

**Primary elements**: Containers within the software system in scope. Supporting elements: People and software systems directly connected to the containers.

**Intended audience**: Technical people inside and outside of the software development team; including software architects, developers and operations/support staff.

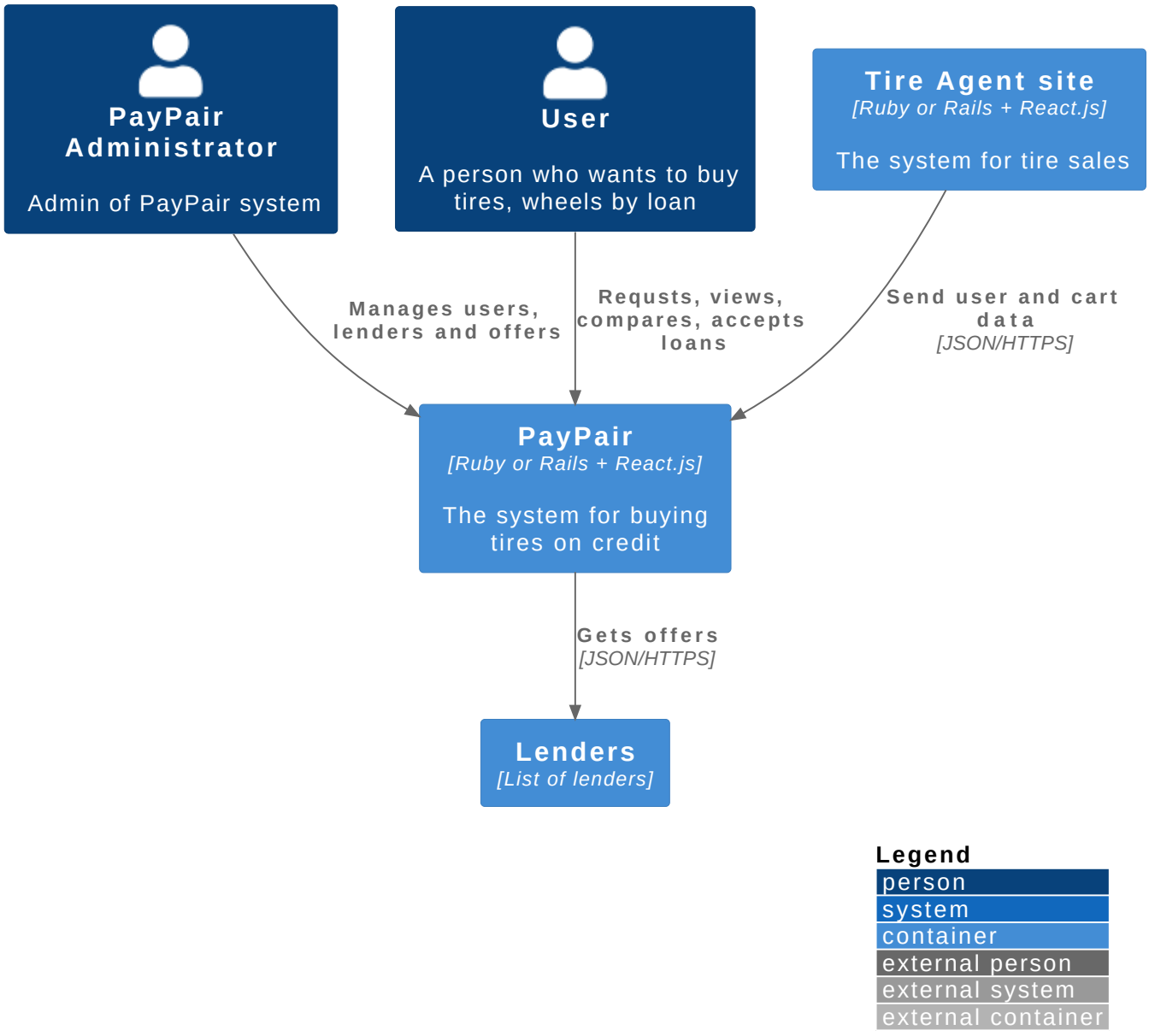
**Notes**: This diagram says nothing about deployment scenarios, clustering, replication, failover, etc.

# 1.3 Diagrams for PayPair

/1.3 Diagrams for PayPair

## 1.3.1 Context Diagram

/1.3 Diagrams for PayPair/1.3.1 Context Diagram




Persons:

The system used by User and PayPair Admin

**User** is person in system who requested loans. User enters personal data. Then user sees all the loan offers, user can look at each of them, compare and choose the most suitable option.

**PayPair Admin** is person in system who manage users, lenders and loans. The administrator can manage lenders. It can enable/disable lenders. Can view all loan applications and lender survey results. Can cancel or make a partial refund. View analytics

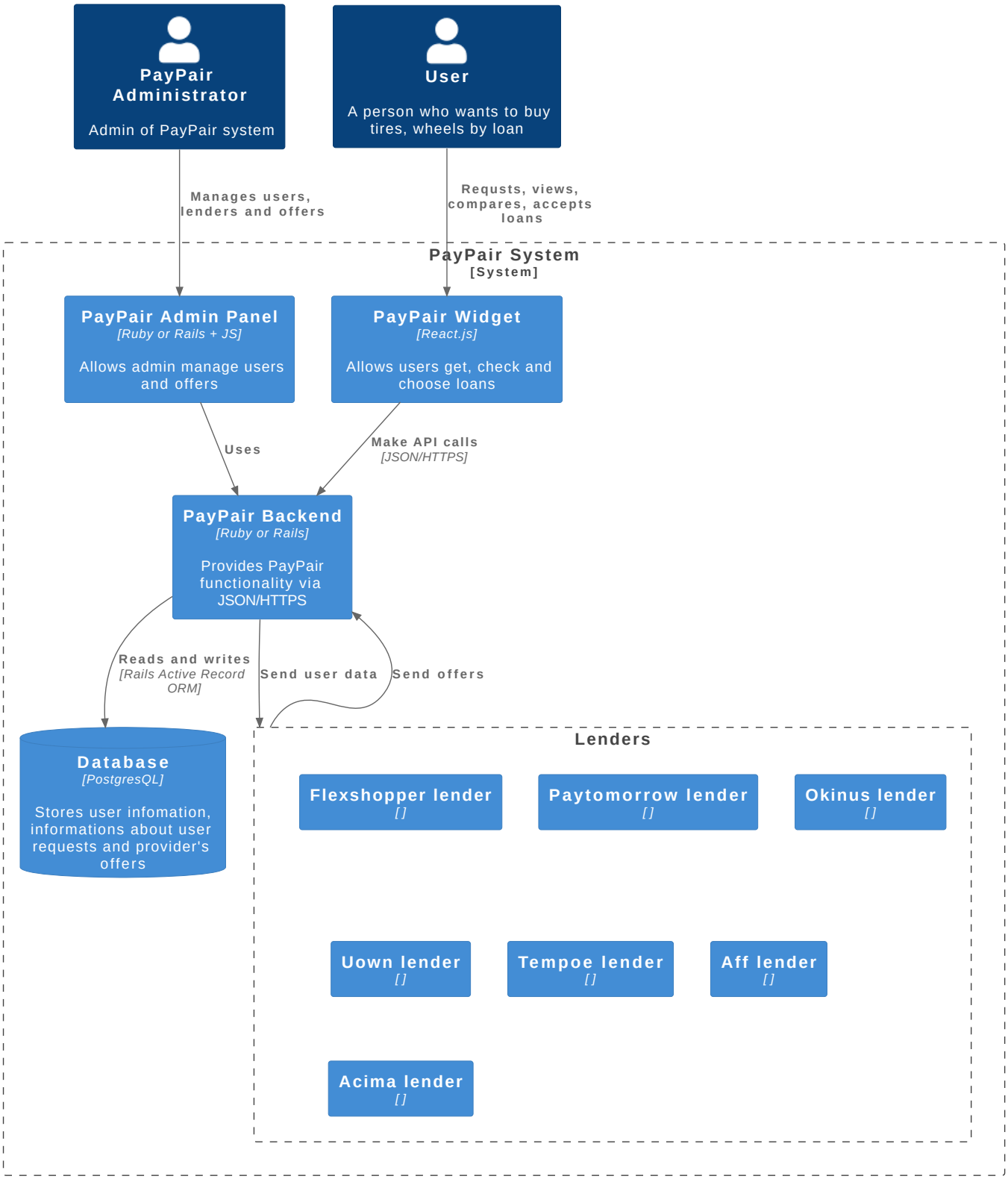
Third-parties Services

**Tire Agent site** is sends information about user: first name, last name, address, phone number, ect, and cadt details. PayPaid uses this data to bould request to lenders.

**Lenders** is companies to provide loans for users.

## 1.3.2 Containers Diagram

`/1.3 Diagrams for PayPair/1.3.2 Containers Diagram`




The System consists of the following elements:

PayPair Admin Panel. This application is used by the administrator to provide functionality for it. Admin Panel based on Rails View

PayPair Widget. This application delivers to the end-user browser and provides functionality through it. This application is based on React/Redux.

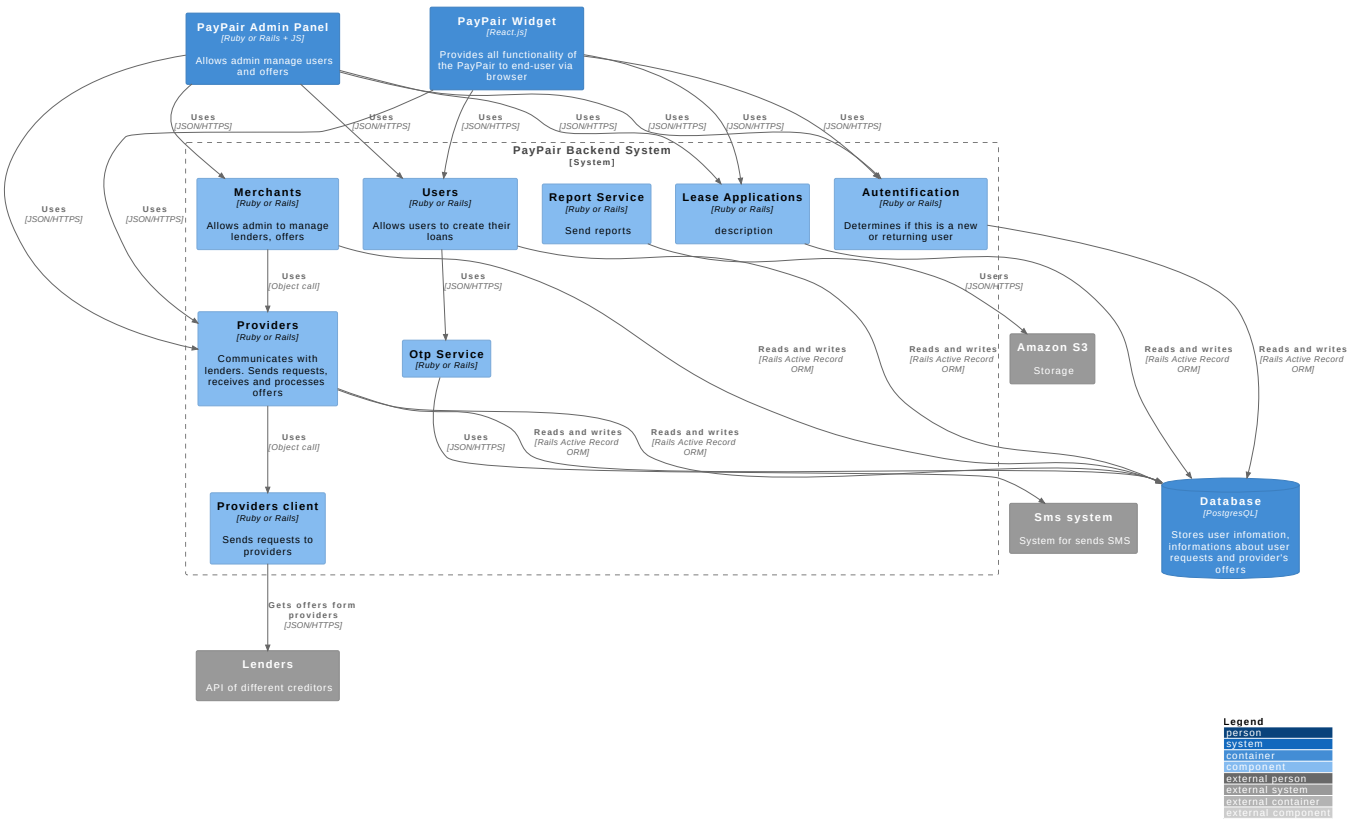
PayPair Backend. This application provides functionality through JSON/HTTP interface. This application is based on Ruby/Ruby on Rails. It has integration with many Lenders services.

Lenders. It is lenders API. They provide loan offers for the end-user

Database. This element is responsible for the data store: users data, offers, providers data, etc.

## 1.3.3 Components Diagram

`/1.3 Diagrams for PayPair/1.3.3 Components Diagram`




API application is a monolith application based on Ruby/Ruby on Rails. API application can be divided into two parts: Admin Panel and Backend Part. Backend logic is separated using Interactors. It means that the functionality of the system is divided into related parts according to the High cohesion and low coupling principle (the same principles are followed by microservices architecture pattern).

API application consists of the following parts:

Autentification (Ruby on Rails). This module is responsible for Admin sign-in/sign up. JSON Web Token will be Admin for user authentication purposes.

User (Ruby on Rails). This module is responsible for user creating, searching existing users, checking previous approvals, authorizing etc.

Otp Service (Ruby on Rails). This module is responsible for sending OTP code to users by SMS. Module can use two sms providers. These providers are managed by the administrator.

Providers (Ruby on Rails). This module is responsible for building requests to lenders, response This module is responsible for, creating offers data. ect.

Merchants (Ruby on Rails). This module is responsible for Admin functionality - creating admins, managing providers, checking offers and users, ect.

Providers client (Ruby on Rails). This module is responsible for sending requests to providers.

Lease Applications (Ruby on Rails). This module is responsible for storing users requests, calculating taxes.

Report Service (Ruby on Rails). This module is responsible for creating different reports - new users report, approved offers report, ect.

## 1.3.4 Entity Diagram

`/1.3 Diagrams for PayPair/1.3.4 Entity Diagram`

Entity diagram describes entities in the system and relations between them.

Merchant. This entity represents merchant account. It is company which use PayPaid. Each merchant has personal agreements with creditors, settings.

Admin. This entity represents an employee who manages customers (users), creditors, offers and approvals

MerchantLpConfiguration. This entity represents the provider setting and contains the personal credentials of each provider.

Setting. This entity represents merchant settings. This contains settings such as choosing an SMS service for sending a OTP code and setting up work with providers

Subscriber

Trending. This entity represents logs. This shows whith screens user visit and where user close PayPair.

User. This entity represents the end-user in the system.

NewUser. This entity was creating for analytics. This also represents end-user but with needed data for analytics.

ApplicationRequest. This entity represents loan request from user to PayPair system.

LeaseApplication. This entity represents responses form providers. It shows whether the provider approved the loan request or not, information about payment schedule. It is also updated if the user took advantage of the offer or if the user after a while did cancel, refund or settle.

OrderItem. This entity represents user's cart. It contains product information.

RefundedItem. This entity represents items whith was refunded.

## 1.3.5 Activity Diagram

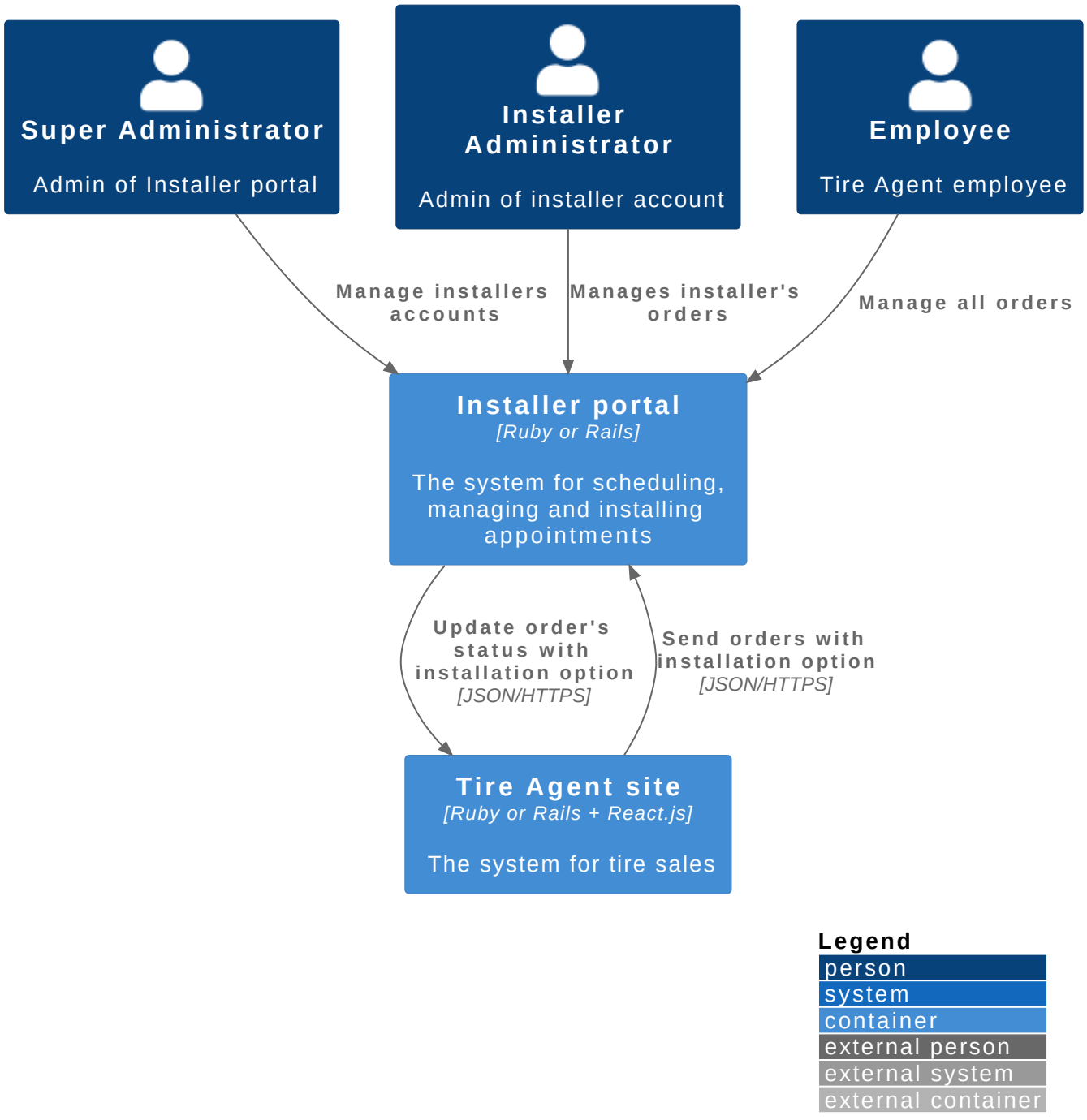
`/1.3 Diagrams for PayPair/1.3.5 Activity Diagram`

# 1.4 Diagrams for TireAgent Installers Portal

/1.4 Diagrams for TireAgent Installers Portal

## 1.4.1 Context Diagram

/1.4 Diagrams for TireAgent Installers Portal/1.4.1 Context Diagram

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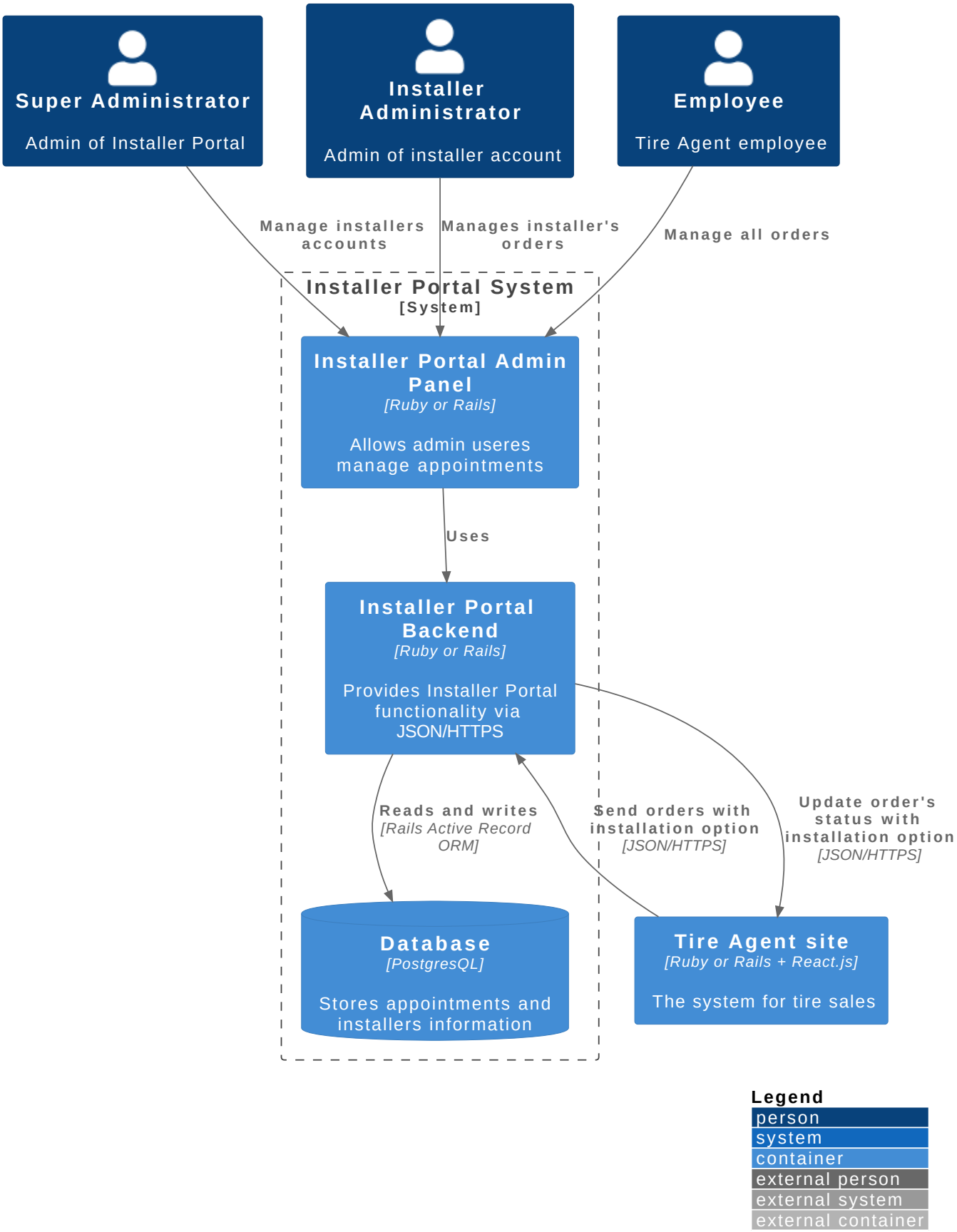
`/1.4 Diagrams for TireAgent Installers Portal/1.4.2 Containers Diagram`

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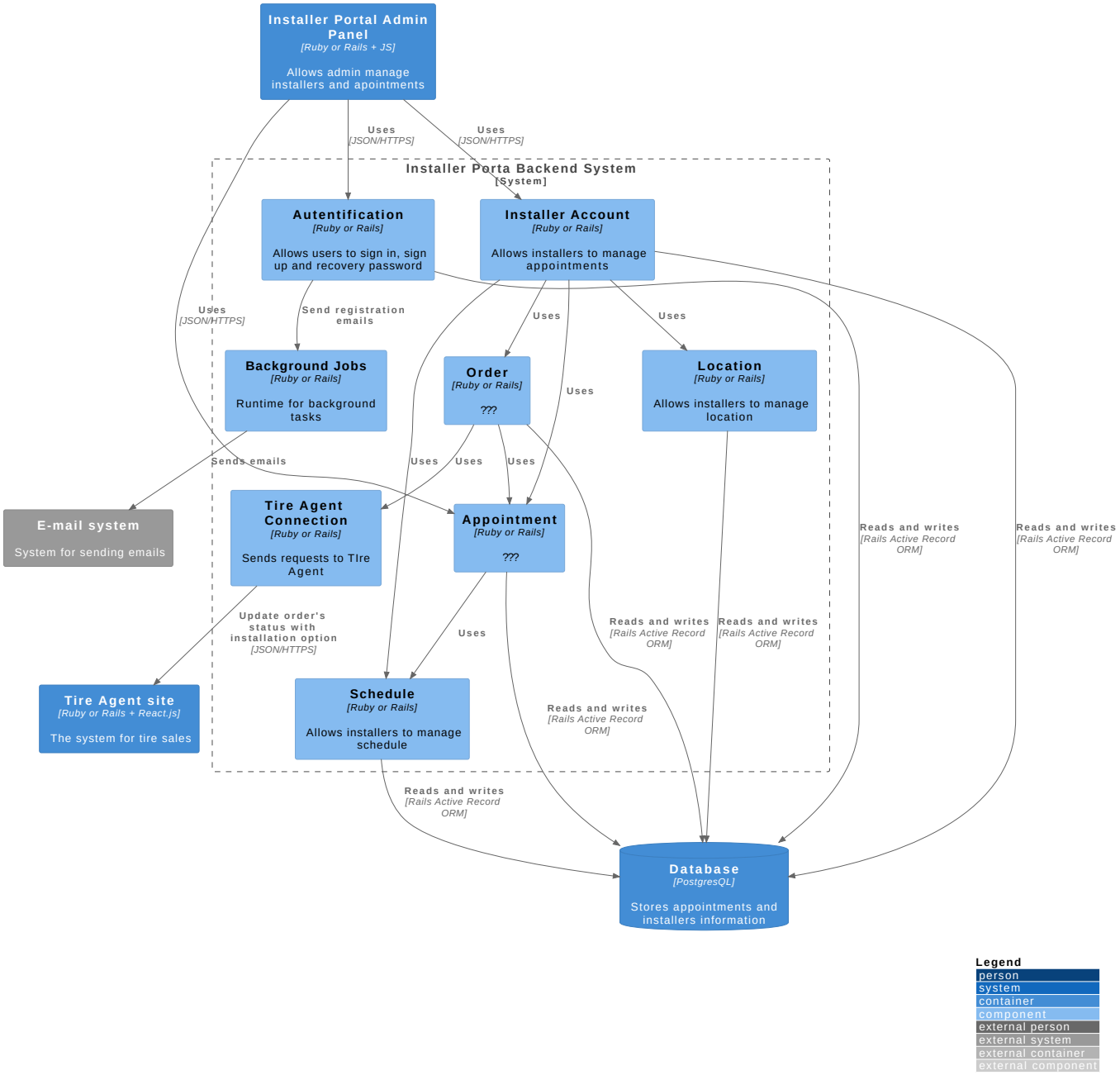


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## 1.4.4 Entity Diagram

`/1.4 Diagrams for TireAgent Installers Portal/1.4.4 Entity Diagram`

## 1.4.5 Activity Diagram

`/1.4 Diagrams for TireAgent Installers Portal/1.4.5 Activity Diagram`

## data

`/data`