

Software Architecture Document MARKETPLACE

Ivanti

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1. Introduction

Context

Ivanti Edge Intelligence is a platform for IT administrators retrieving facts from within their environment. With our platform the administrator can discover, gather insights, and take actions on happenings in their environment through software sensors. Characteristics about our platform are a simple user interface, fresh data as we retrieve our data directly from our endpoints, high performance, secure and scalable and we get better all the time with continuous delivery of new sensors, content, and visualizations. Our platform will be used all over the world, so localization and internationalization are key to success.

To make the customers of Ivanti able to access this platform and all other products of Ivanti a marketplace is required. More about this is the goal of the project.

Purpose

The purpose of this document is to provide explanations about the architectural structure of the web application.

2. System Overview

Description

This web application is a platform for users to browse through available product provided by Ivanti.

Main User Activities

User can browse through packages that are available in the web application. When user interested in a package, they can download it. User can also update it or remove it. It's up to the user to manage their packages. They also can upload a package for another user to download it. The uploader can edit their packages to whatever they intended.

Goal of the project

Our project goal is to extend the capabilities (sensors) within Edge Intelligence with a new platform that provides customers (new) content through a marketplace. Our marketplace will provide customers with added content delivered by Ivanti, partners or the community, they eventually can install into their environment. We believe a great customer experience will drive the use of the marketplace and will deliver more external content creators towards our platform.

3. Design Consideration

Operational Environment

This web application is compatible with all the browser, e.g., Chrome, Opera, Firefox, etc., that are in computer. Website operated from a phone is out of scope.

Development Method

We will approach this project using agile and scrum. We are going to do 5 sprints, each 3 weeks long, with a meeting with the stakeholder at the end of every sprint as well as a developer team meeting to reflect on the sprint and plan the approach for the next one.

Architectural Strategy

Using C4 model for this document, we will keep updating the model to make it keep in line and in check as the project is keep being develop.

4. Architecture Representation

In this document, we will use C4 architecture model to depict the software as accurately as possible. It allows to visualize a software architecture at various levels of detail. The model is divided into 4 different parts, Context, Containers, Components, and Code.

a) Context

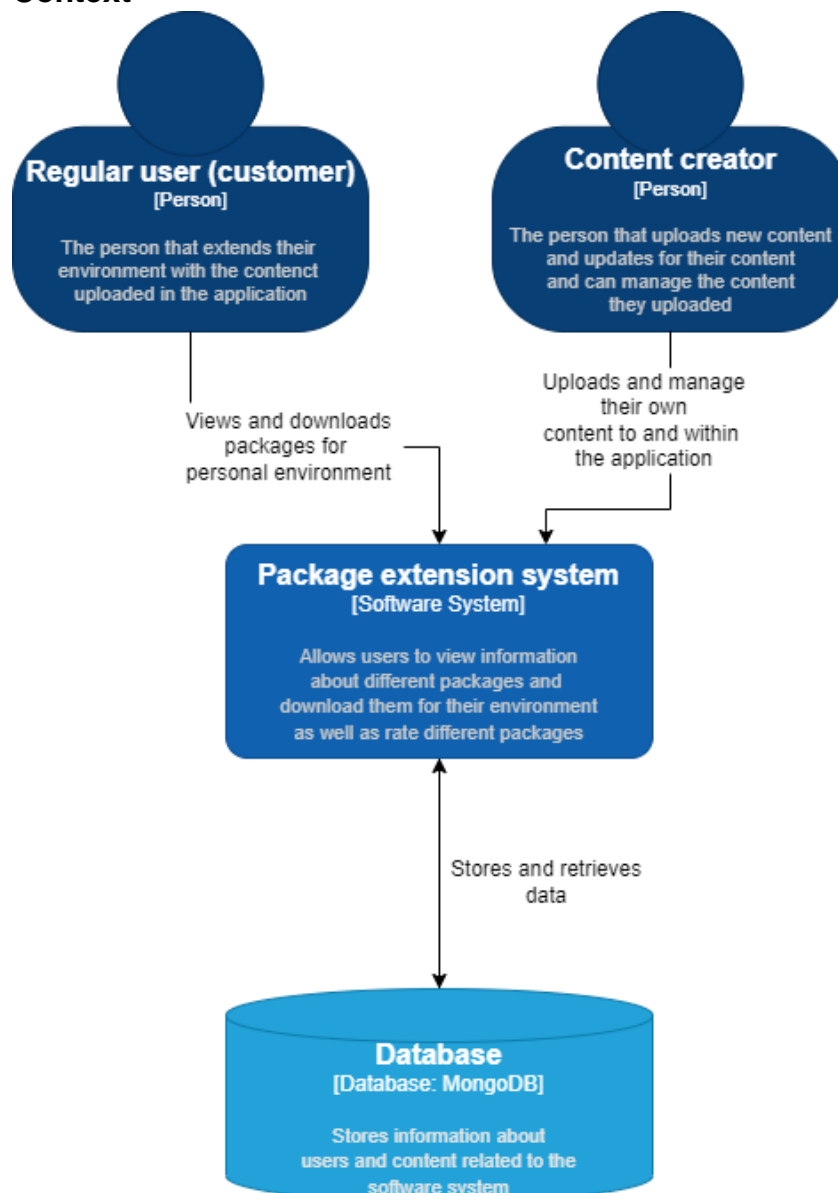
System context diagram shows the software system you are building and how it fits into the world in terms of the people who use it and the other software systems it interacts with.

- b) Containers
Container diagram zooms into the software system, and shows the containers, such as application and data stores, which make up that software system. Technology decisions are also a key part of this diagram.
- c) Components
Component diagram zooms into an individual container to show the components inside it. These components should map to real abstractions, like grouping code, in the codebase.
- d) Code

Code diagrams zoom into an individual component to show how that component is implemented.

5. System Architecture

Context

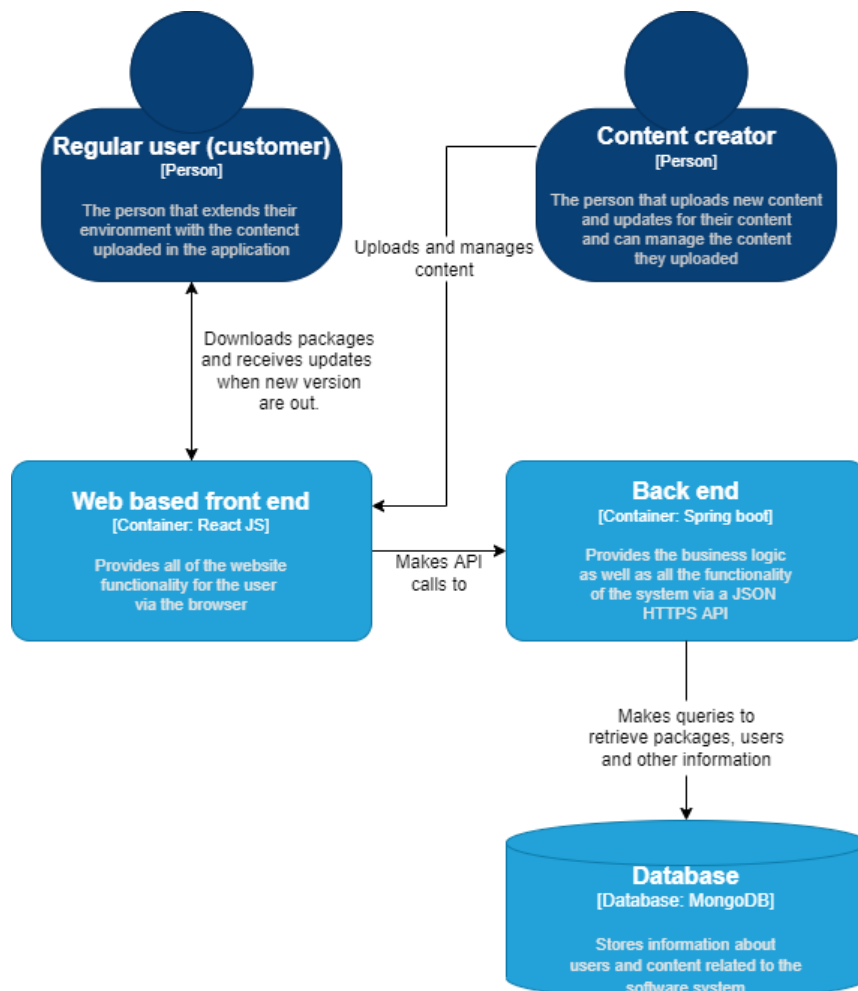


Containers and Tech Choices

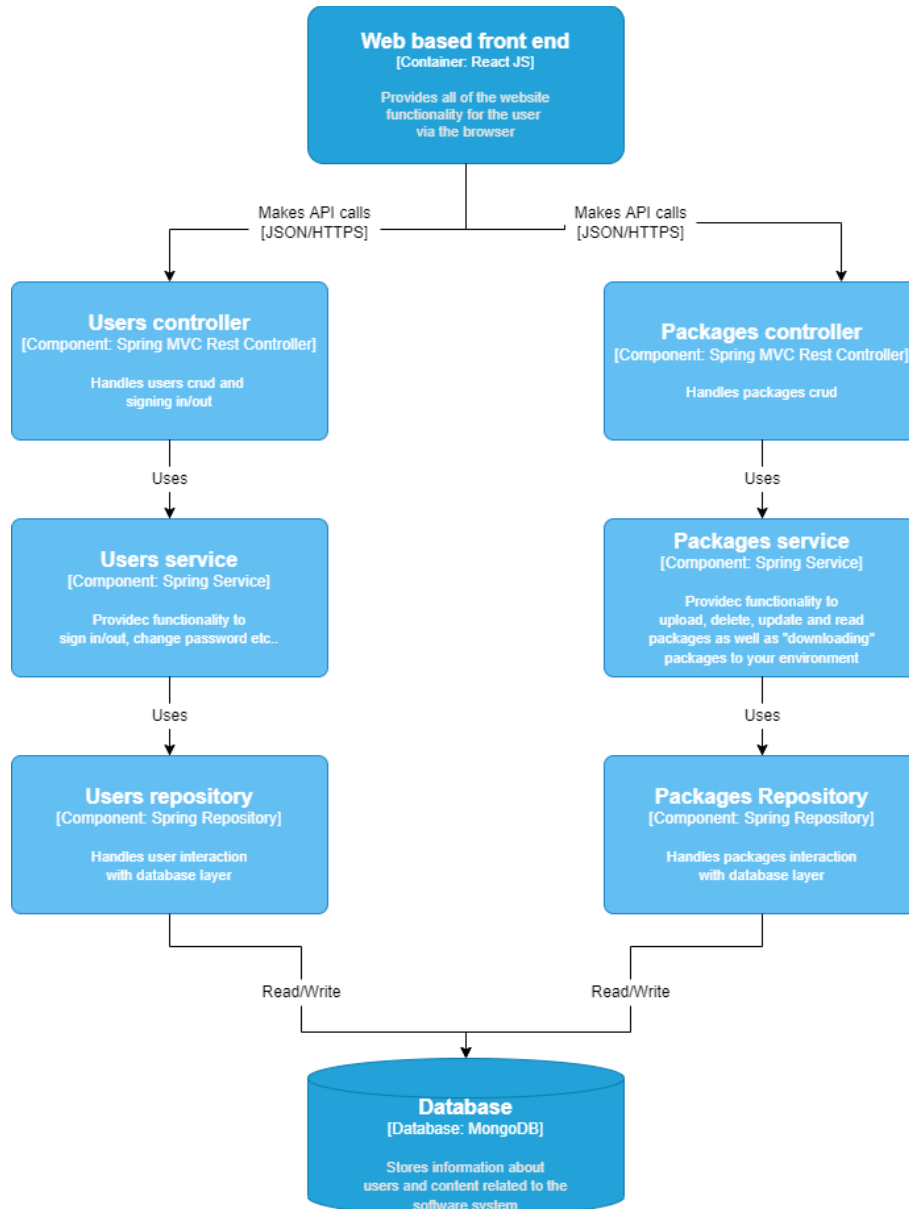
In the front end, we will use React JS to develop the web application. React JS is one of the most popular frameworks. It helps us to develop web application easier using HTML, CSS, JavaScript, and other external libraries. React JS helps with the connection to the back end.

In the back end we will use Spring Boot with Java. Java is powerful, flexible, and widely use for web application. Java can be use anywhere especially when web application is run on different kind of device, and it helps to make the web application compatible with all devices in different operating system. Spring Boot helps us develop the back end easier. Spring Boot already pre-configured functions that help us safe time to code using Java.

For the database we use MySQL. MySQL is one of the fastest databases and it can help us to make faster user interface for one of our project goals.



Components



Code

Code diagram has not been made.

6. Design Specification

Database Design

Database will be added on the second sprint.

User Interface Design

Home page before login. This home page will be displayed when user opens the web application. It shows packages that are available in this website, with an option that can be changed. You can choose which category you want to view, search package you want to get, and both can be done simultaneously. Packages are group by the title on top of each container. On the left navigation, there is a menu that you can click to navigate to other pages. On the top right, you can click it for login.



top rated



Recommended for you



This page is the same home page, but this is the view of user that already logged in. The only change is there is a user icon to indicate you are logged in instead of login button. You can click the icon to opens menu for edit, view profile, choose language, and log out option.



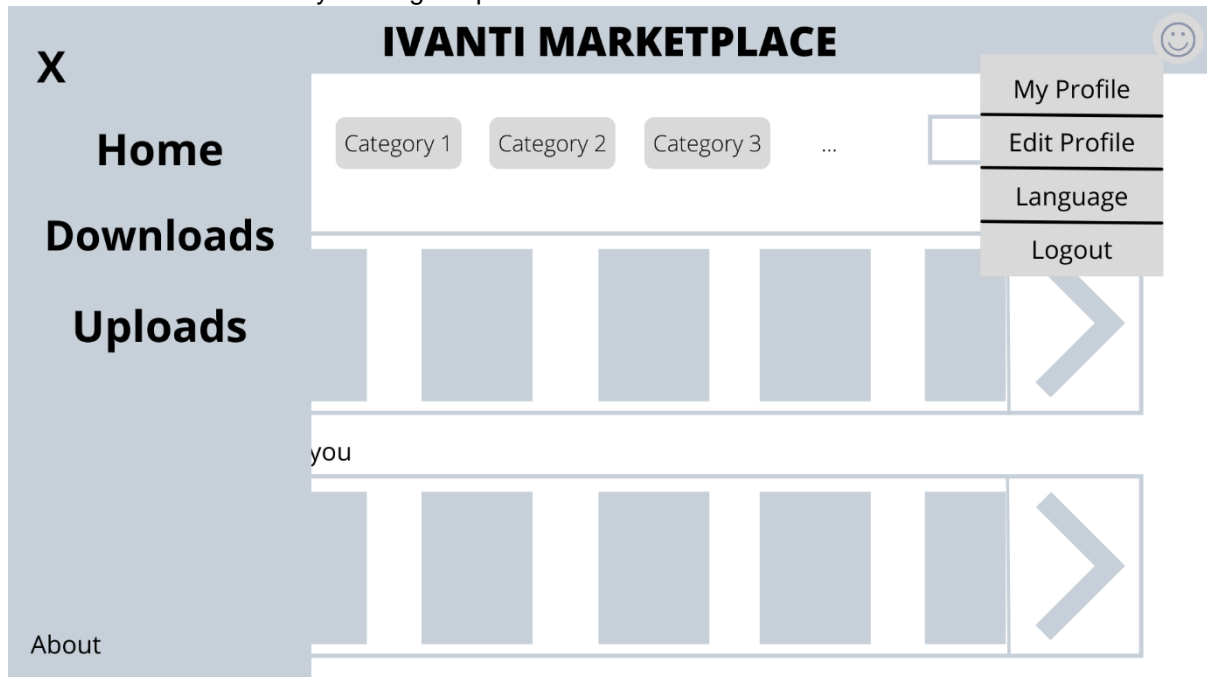
top rated



Recommended for you



This is the view when all menus are opened. On the left it shows what pages can be navigated when you click the 3 bars menu. You can click the 'X' button to close the navigation menu. On the right, there are options for you to view your profile, edit your profile, change language, and logout option. You can close the menu by clicking the profile icon.



This page is the login page. You can go to this page by clicking the login button on the top right before logging in. You can insert username, password and then click the login button to log in to the web application. You can click the blue text for registering an account.




Username

Password

Login

Don't have an account yet? create one [here!](#)

This page is the register page. To access this page, you must click blue text in login page from the previous wireframe. You can insert credentials as shown below and click register to make new account. You can go to the login page by clicking the blue text below the register button.

**IVANTI MARKETPLACE**

Login

First Name

Last Name

Email



Password



Repeat Password

Register

Already have an account? Login [here!](#)

This page is the view profile page. You can access this page after you login and by clicking the profile icon and choose “My Profile” option. Here, your account information will be displayed. You can edit the account by clicking the pencil icon on the bottom left of the profile picture. By clicking that icon, edit profile page will be displayed.

**IVANTI MARKETPLACE**



Full Name

Email

Description



This is the edit profile page. To access this page, you have to login first and after that, by clicking the profile icon and choose “Edit Profile” option or by going through from “My Profile” page from the pencil icon on the bottom left of the profile picture. Here, you can change credentials as shown below and edit your profile picture. To save changes, you must click the edit button on the bottom right of the page.

**IVANTI MARKETPLACE**



Edit

This is my downloads page. After you download packages, downloaded packages will be listed here. You can access this page by clicking the navigation menu option of “My Downloads”. Here you can delete, update, or open the package. By clicking the package’s title, package information will be displayed.

**IVANTI MARKETPLACE**

My Downloads		
Icon	Title	<button>Update/open</button> <button>Uninstall</button>
Icon	Title	<button>Update/open</button> <button>Uninstall</button>
Icon	Title	<button>Update/open</button> <button>Uninstall</button>
Icon	Title	<button>Update/open</button> <button>Uninstall</button>

This is my uploads page. This page can be access if you have a package that you have uploaded. To access this page, you must choose “My Uploads” option in the navigation menu. Here, you can edit/update the package or delete it. By clicking the title package, information about the package will be shown.



My Uploads

Icon	Title	Edit	Remove
Icon	Title	Edit	Remove
Icon	Title	Edit	Remove
Icon	Title	Edit	Remove

This is the upload package page. Here, you can insert title, description, and category. You can upload an image for your package. By clicking the blue text below category option, you can add another category. By clicking the upload button, you can upload your package to this web application.



Back



Icon	Title
	Description
Upload	Category 

[Add another category](#)

This is the edit package page. This page can be access from the “My Uploads” page and clicking the “Edit” button. Here you can change title, picture, descriptions, and categories. By clicking the blue text below category option. By clicking the edit button, package you have chosen is edited and other user can update the old version of this package.



Back

Icon	Title
	Description
Edit	Category  

[Add another category](#)

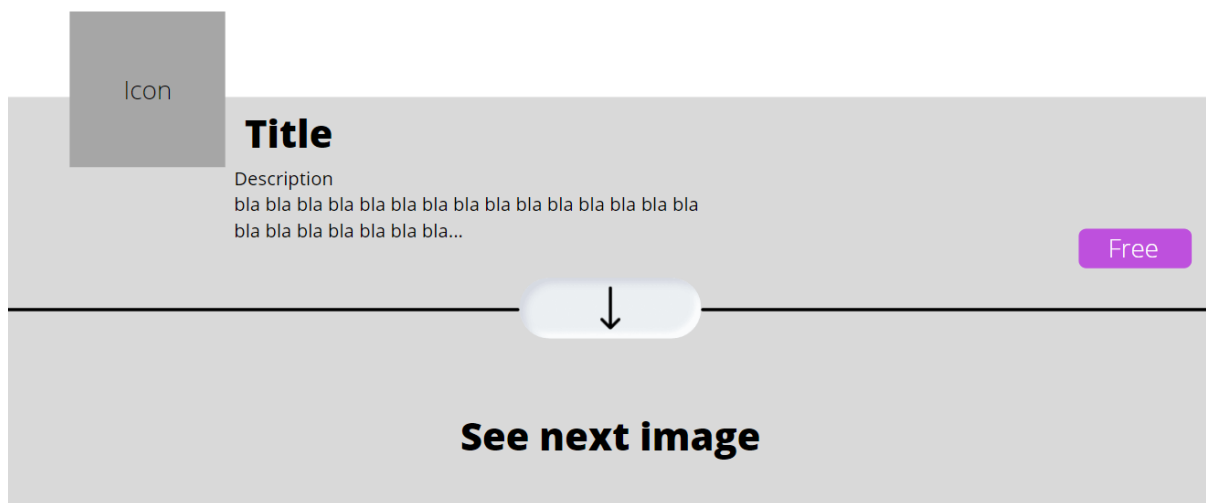
This is the remove package page. This page can be access from the “My Uploads” page and clicking the “Remove” button. Here is the package informations displayed and you can click the remove button. By clicking that, your package will be deleted.

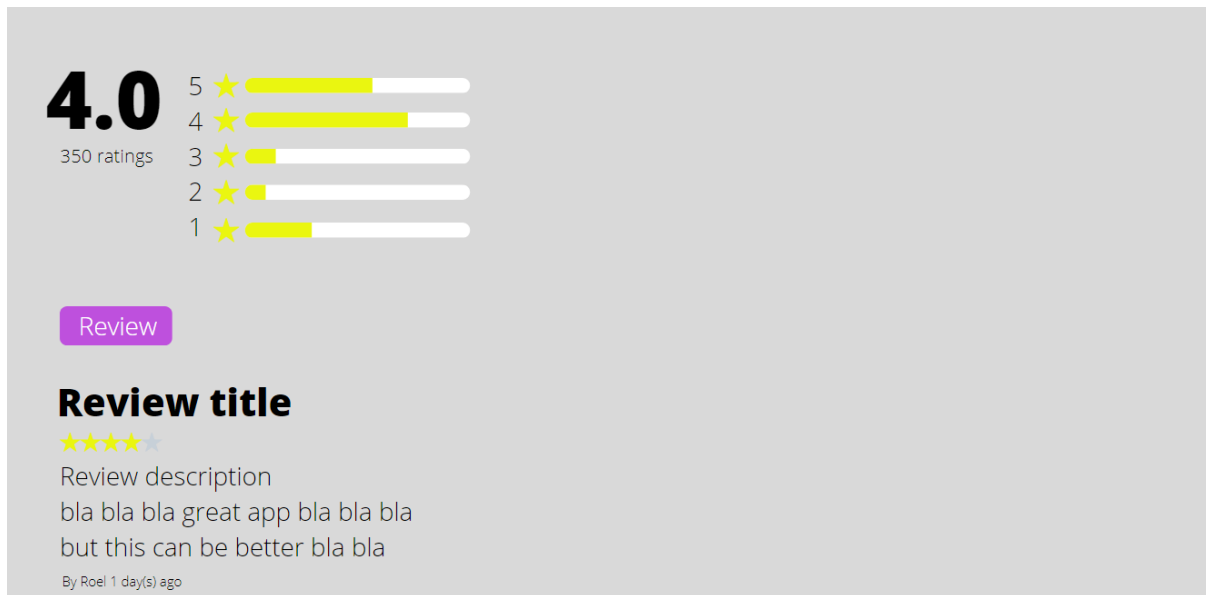


Back

Icon	Title
	Description
Remove	Category

This is the close look for the package card. Here you can see the title, description, and ratings. The button beside the ratings is a button for you to download the package. By clicking that, this package will be added to the list of “My Downloads” page.





This is page showing you the information of a product when you are scrolling through multiple apps. Here you can read more of the descriptions and ratings rated for this package. You can download this package by clicking the button on the bottom right of the package description. And on the bottom of this page, ratings are displayed and you can read all of the rating rated by other user. By clicking the review button below the overall rating, you can rate the chosen package and submit it for other people to see. Below the description of the package and on top of the rating, there is see next image option with a down arrow. This arrow can be click and next package will be shown with the same template.

Activity Design

To display the main processes in the product we made some activity diagrams.
Image below is the flow of activity when user perform an installation of a package.

Marketplace install diagram

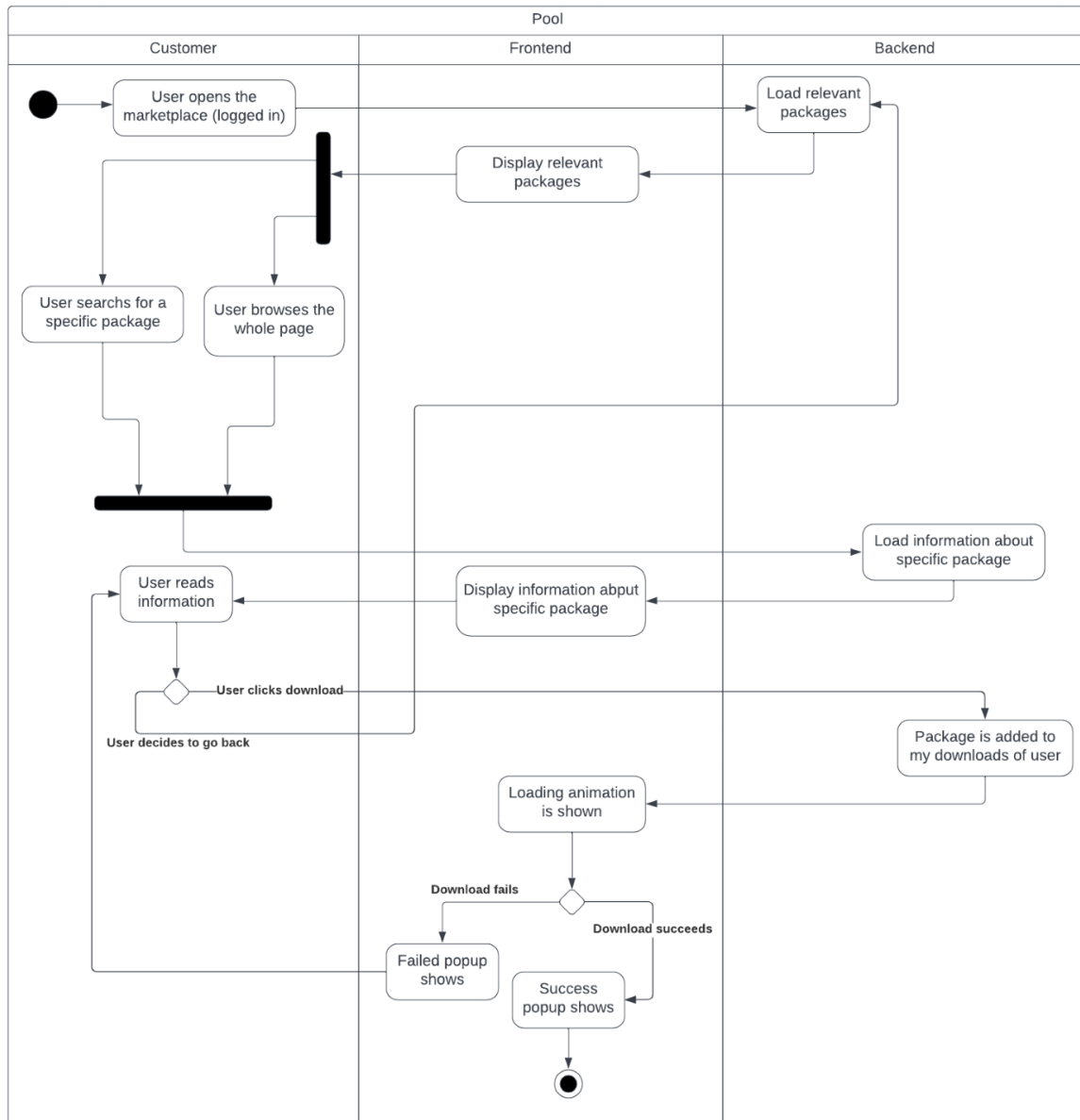


Image below is the flow of activity when user perform an update to a package.

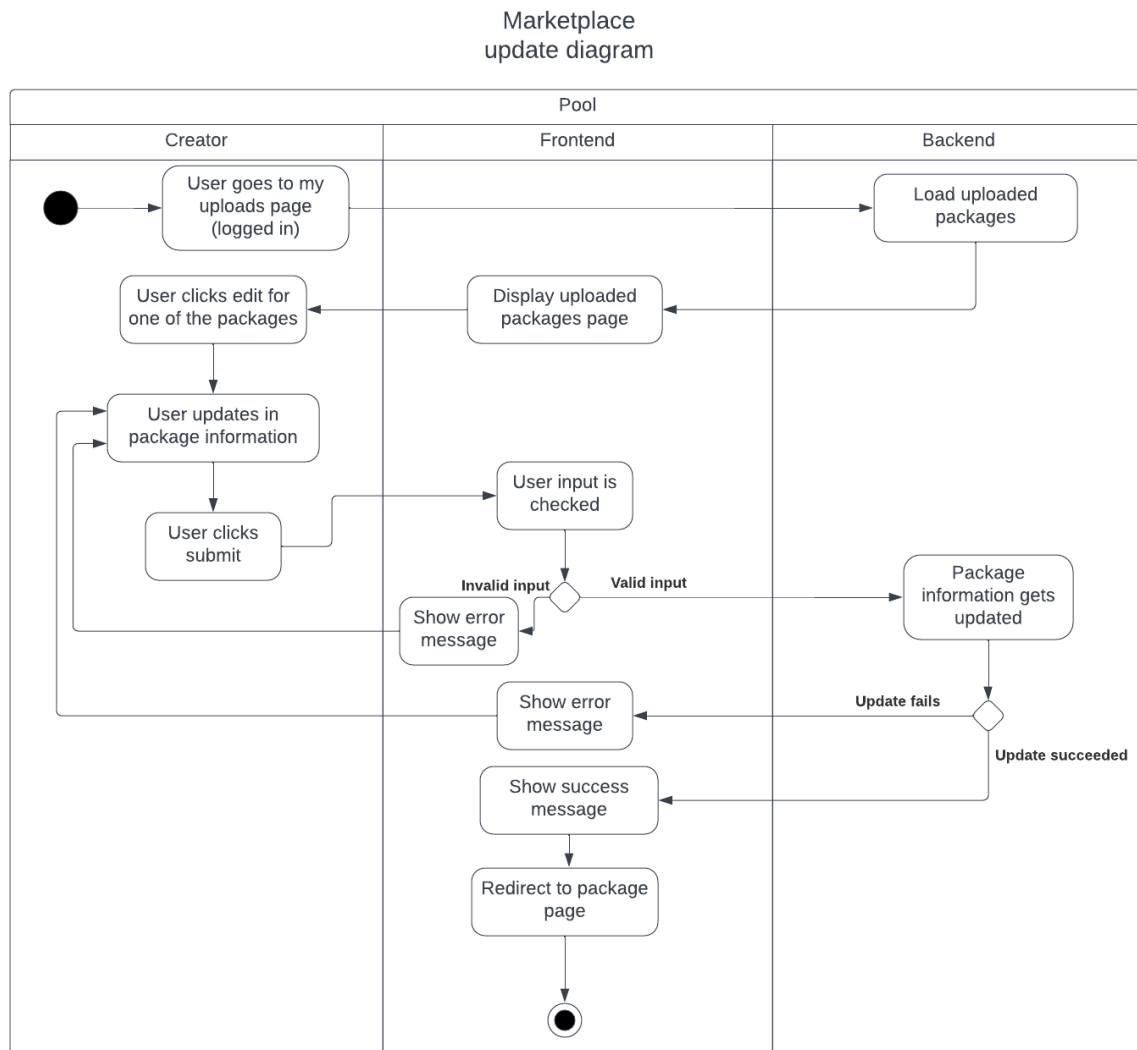


Image below is the flow of activity when user perform an upload for a package.

