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Project Description

The main goal of my project is to help new employees start their first day at work smoothly. With this project, companies can show new employees all the important documents on a website before they come to the office. They can also watch safety videos and other important videos online. This way, the first day will be easier, and both the new employee and the company will save time during the hiring process.
The project will be built using Python Flask, Heroku Postgres, Bootstrap, and Blueprint. Python Flask will be used to create the web interface and manage all the logic of the app. Heroku Postgres will store and manage the data in the cloud, making it easier to handle backups and scale up if more users join.
Bootstrap will be used to create a user-friendly interface that works well on all devices, like phones, tablets, and computers. Blueprint will help organize the code into different sections, making it easier to manage and reuse. Together, these tools will make the project more efficient, flexible, and easy to use for everyone.

Cloud Delivery Models

SaaS (Software as a Service):

I will utilize various SaaS solutions to enhance my project functionalities, providing user-friendly services for specific needs without going into specific providers.

PaaS (Platform as a Service):

I will use Heroku to deploy my application because it is a Platform as a Service (PaaS) that makes it easy to develop, run, and manage my Python Flask application. Heroku has many benefits, like automatic scaling, which adds more resources when my application gets more visitors, ensuring it runs smoothly. It also supports continuous integration and deployment (CI/CD), which helps me update my app quickly and efficiently.

IaaS (Infrastructure as a Service):

I will use Heroku Postgres as my database solution. Heroku Postgres provides scalable database services that can easily integrate with my application, allowing me to manage and store data efficiently in the cloud.

Diagrams

Use Case Diagram

You can see the use case diagram at Figure 1.

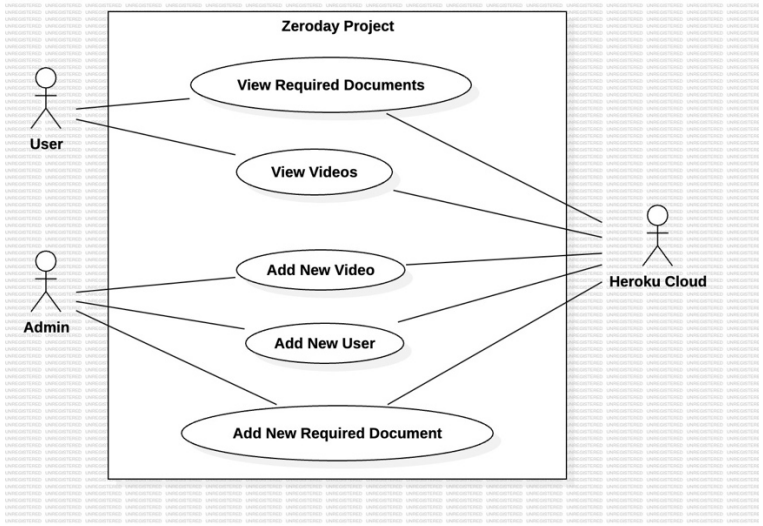

Figure 1: use case diagram of project

Data Flow Diagram

You can see the data flow diagram at Figure 2 and Figure 3.

Context Level:

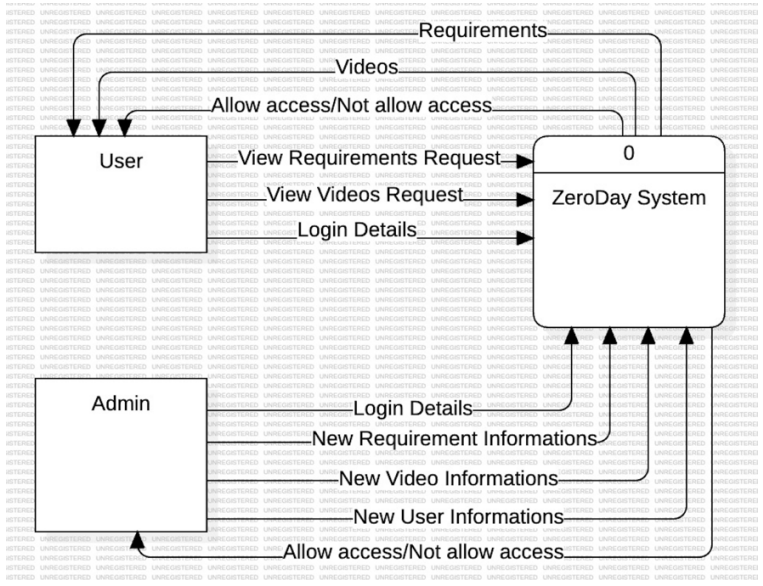

Figure 2: context level of project

Level 0:

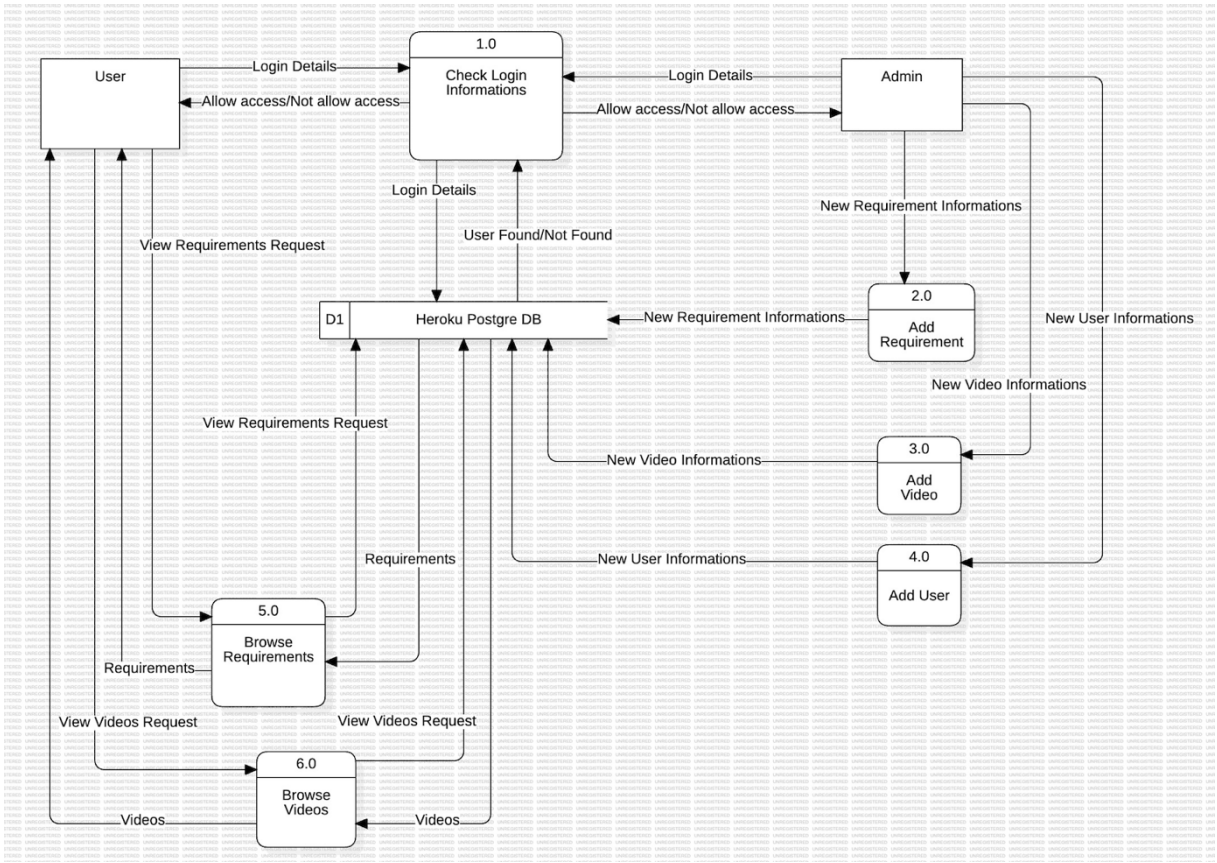

Figure 3: Level 0 of project

Data Types

In my project, the types of data I use are:

Text Data:

- Video Names and Links: In the "videos" section, I show the names and links of the videos that new employees can watch before their first day at work.
- User Login Information: Users log in to the system using a username and a password to access the platform.
- Data Stored in the Database: The database in my project stores important information such as usernames, passwords, video names, links, like/dislike counts, and required documents in text format.

Computation

In my project, computation involves processing data and performing calculations. For example:

- Checking user login information when users access the platform.
- Updating the like/dislike counts for each video when users interact with them.
- Adding new user (create username, password and decide he/she is admin or not).

Expected Contribution

The backend, frontend, database and cloud parts of the project will be done by Umutcan Celik.

References

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