



Singidunum University, February 10th, 2020
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Web Programming Class Project

Quick Project Summary

Yūgen is a single-page web application that focuses on making traveling stress-free by incorporating main aspects of travel necessities such as **transportation and accommodation** into one app (*definitely not stolen from Booking*).

Some of the app functionalities are:

- User Authentication
- Accommodation reservation
- Flight ticket purchase
- System Administration

Types of users:

- Admin
- Regular User

More on these in the following slides.





Authentication And Registration

Authentication is done through JWT (JSON Web Token) and cookies 🍪.

→ Login

Both Regular User and Admin login are done through the same interface. This is accomplished by checking for the user type after authentication.

→ Registration

Regular User registration is accomplished by requiring input of non-existent email address .

What tools and technologies have been used to build this project?



By tools and technologies, what is meant is:
programming languages, database software, frameworks etc.

Languages

- Python 
- Javascript 
- HTML 
- CSS 
- SQL 

Frameworks

- Flask (backend) 
- AngularJS (frontend) 

Libraries

- Bootstrap 
- UI-Router
- UI-Bootstrap

Software

- MySQL 

Password security is accomplished by using bcrypt **password hashing function.**



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- Algorithm
- Algorithm options (eg cost)
- Salt
- Hashed password



The database is populated with

194 countries,
14918 cities,
7392 airports,
1572 airlines

for simulating real-life data management.





Regular User

Below are Regular User's functionalities

→ **Flight Ticket Purchase**

Users can purchase flight tickets by picking an origin and a destination city..

→ **Accommodation Reservation**

Users can find accommodation by selecting a city, and the amount of stars a certain accommodation has. After a quick search, the user will be able to make a reservation.



Admin

Below are Admin's functionalities

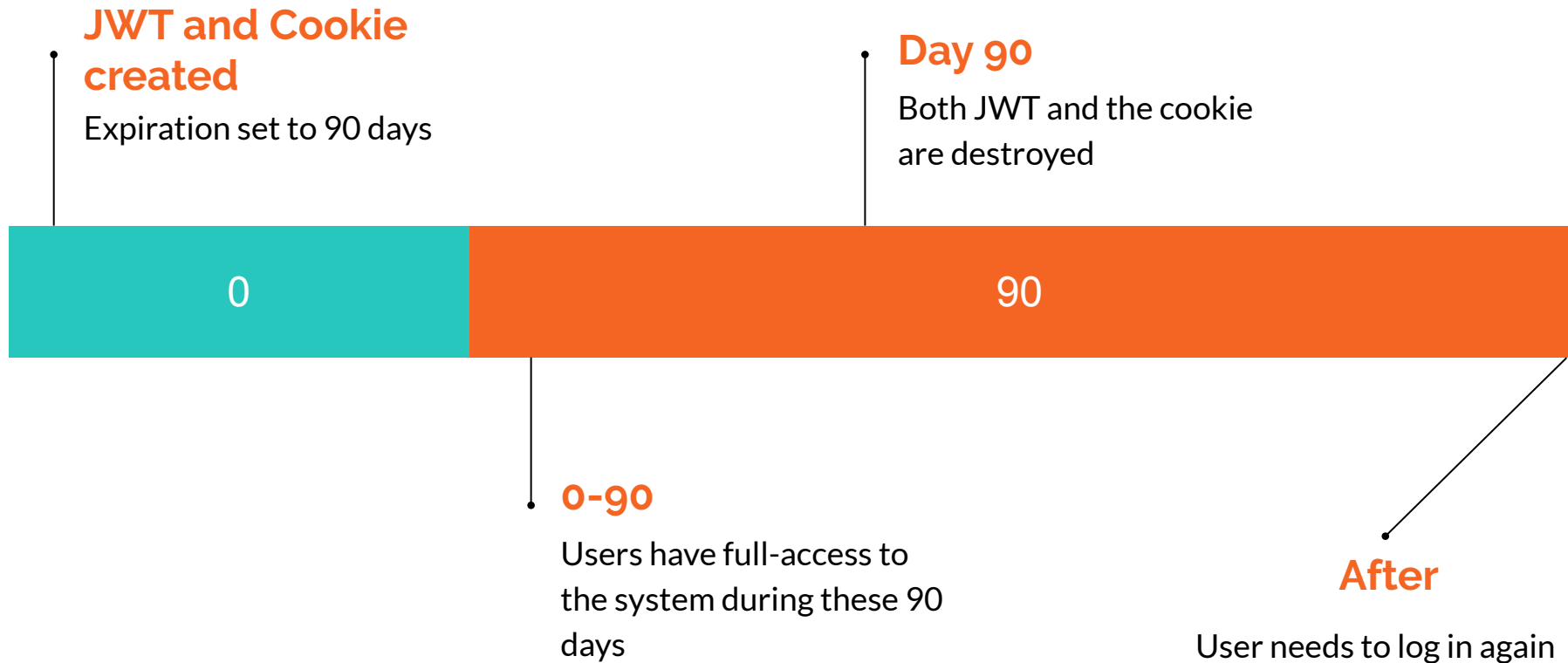
→ Homepage

Homepage is consisted of 3 tables (users, accommodations, flights). Users can be deleted but not edited because of the JWT validation. Accommodations and Flights can be both deleted, and edited.

→ (Admin, Accommodation, Flight) Addition

Functionality of adding new admins, accommodations, and flights.

JWT and Cookie



Three-Tier Architecture

PYTHON

FLASK

Application Tier

ANGULARJS

HTML

CSS

JAVASCRIPT

Presentation Tier

MYSQL

Data Tier



Thank you!

Interested in testing Yūgen? Go to
<https://gitlab.com/bullFroggie/y-gen>

