Capstone

Visualis

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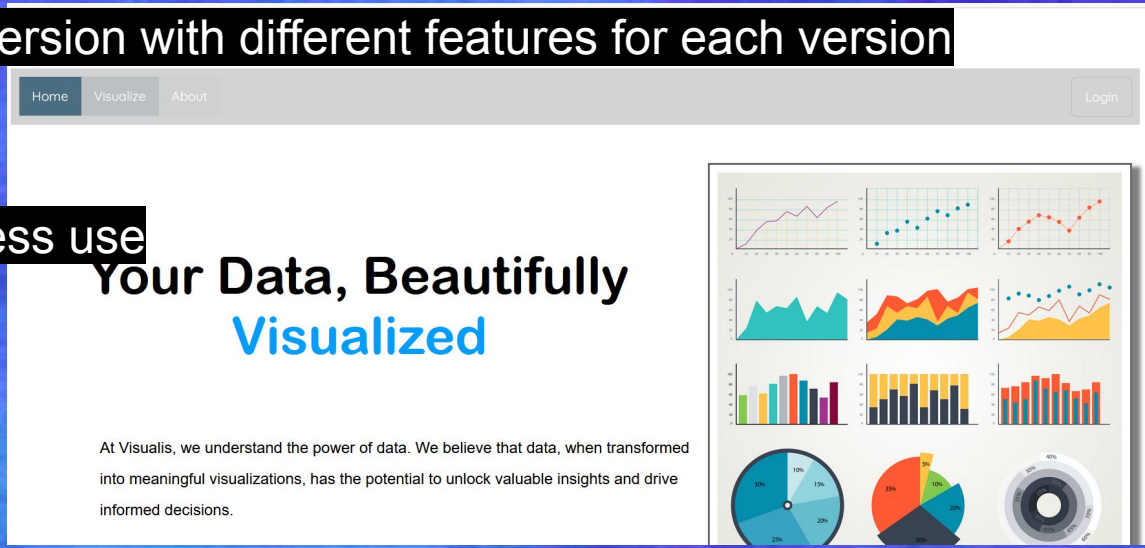
What does the app do?

- A Data visualization website
- Users need account to use
- Users can upload their own data
- Users can choose how they want to visualize their chart

Business use

- Can be a paid model where users pay for access to make professional level charts
- Could have a free and pro version with different features for each version
- Can create charts for business use



How does it work?

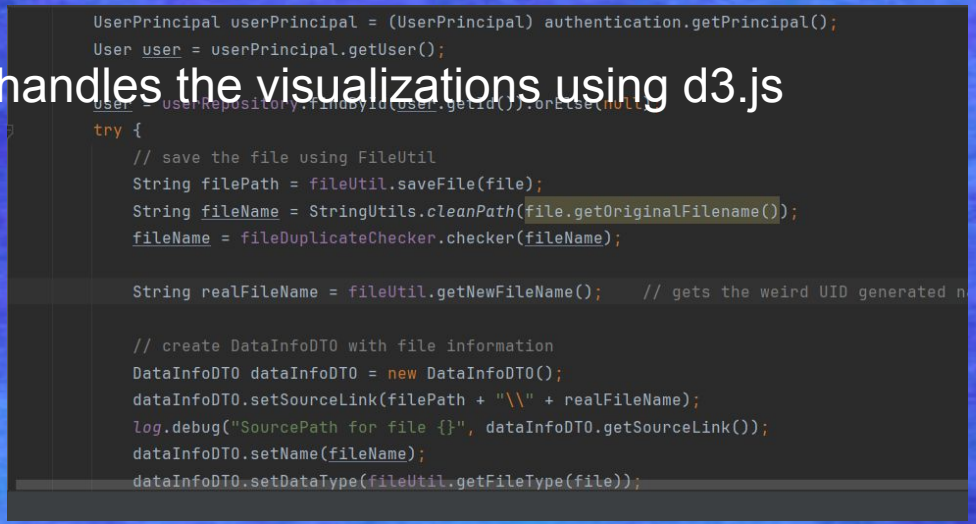
- The app utilizes Java Spring Boot, Javascript, Html/CSS, and MySQL
- Uses are required to register to have access to the visualize page
- Once registered, Users are added to a database
- They are then able to upload a file which is stored server-side with a database connection between the user and the file

How Does it work? -Cont-

- Data entity stores name, User, and id of DataInfo entity
- DataInfo entity stores name, user description, file type, and where the data is located server side
- The user has access to the files they have stored and can choose one to view
- A table is created with the values of the data file
- The user then has the option to choose which data point will be the X-axis and which Data point will be the Y-axis

How it works -Cont-

- The user can then choose a chart to visualize the data
- In the back end, Spring boot directs and contolls the security, file processing, and database queries.
- Javascript handles the visualizations using d3.js



What was learned?

- This project taught me a lot!
- I learned a lot about what goes into security
- I learned a lot of javascript to make the visualizations
- I learned a lot about file processing
- I learned how to make Java and Javascript share data between each other
- I learned how to make dynamic web pages with thymeleaf

Hardest part?

- Dealing with Spring security!
- Learning D3.js
- Keeping track of the code

Additional Features?

- So many!
- I plan to continue working on this for a while
- I would like to add more chart types
- I would like to animate the charts
  - Make sliders and have the data more customizable
  - I had an idea I wasn't able to implement that I really want to continue on
- I want to display the user descriptions the users wrote for their data
- I want to add a user dashboard and an admin dashboard