Software Engineering

Sprint 2 - DocumentationBeer Game

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Introduction

The beer distribution game is a type of game that is utilized to experience usual coordination issues of a supply chain process. It displays a role-play simulation in which different participants interact with each other

Front-End

The progress from the previous sprint included Login and register form of the frontend. In this sprint we added two additional checkboxes for the roles: Instructor and Student. This was done using the following piece of code, which required the import of bootstrap dependency library, which will be needed for the whole run of the program.

The two additional front end pages added are the Game Settings page, where the instructor has the possibility of changing game settings provided in a table and the Game Options page for student, where they choose between creating a game or joining a game.

instgameset.is

This function serves to generate a random number which will be further on used for the rows of the column of the GameID. The loop runs a function which will generate a random combination of the characters provided.

```
<Dropdown.Menu show>
    <Dropdown.Header>Number of weeks/Dropdown.Header>
    <Dropdown.Item eventKey="1">1 weeks</Dropdown.Item>
    <Dropdown.Item eventKey="2">2 weeks</Dropdown.Item>
   <Dropdown.Item eventKey="3">3 weeks</Dropdown.Item>
    <Dropdown.Item eventKey="4">4 weeks/Dropdown.Item>
    <Dropdown.Item eventKey="5">5 weeks </Dropdown.Item>
    <Dropdown.Item eventKey="6">6 weeks</Dropdown.Item>
    <Dropdown.Item eventKey="7">7 weeks</Dropdown.Item>
    <Dropdown.Item eventKey="8">8 weeks</Dropdown.Item>
    <Dropdown.Item eventKey="9">9 weeks</Dropdown.Item>
    <Dropdown.Item eventKey="10">10 weeks/Dropdown.Item>
</Dropdown.Menu>
<Dropdown.Menu show>
   <Dropdown.Header>Yes/No</Dropdown.Header>
    <Dropdown.Item eventKey="9">9 weeks/Dropdown.Item>
   <Dropdown.Item eventKey="10">10 weeks/Dropdown.Item>
</Dropdown.Menu>
<Dropdown.Menu show>
    <Dropdown.Header>Yes/No</Dropdown.Header>
    <Dropdown.Item eventKey="9">9 weeks</Dropdown.Item>
    <Dropdown.Item eventKey="10">10 weeks/Dropdown.Item>
</Dropdown.Menu>
```

This Dropdown element imported from the bootstrap dependency library is used to create a dropdown button for the users to choose between a group of inputs they might want to give.

In this piece of code, we used the <input> to realize the possibility for the user to have a box on the cell of the table to be able to input text, numbers or characters. The other option on other cells of the table which include a button (currently a dummy button, functionality is left to be added).

gameoption.js

In this page, the user will see two options provide in the form of buttons whether he wants to create or join a game:

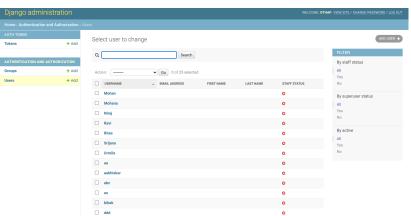
We used the <Jumbotron> to create a nicer appearance of this simple frontend page.

Back-End

The code from the sprint 1 was only the front end. We completed the back end with the user authentication using Django. We used the default database system of Django i.e dbsqlite. The screenshot is the Django administration page for the super user. It shows all the users registered so far. The same data is used for the user authentication during log in. Everytime a

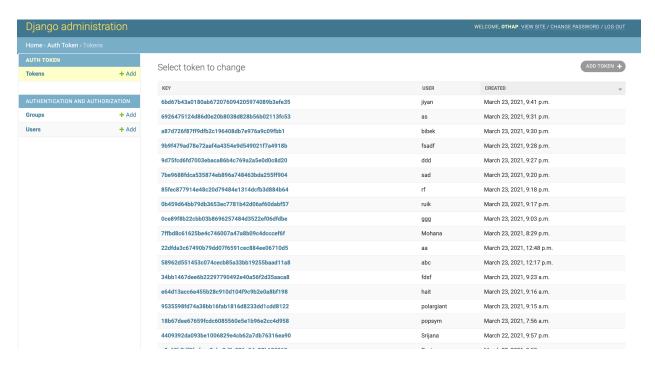
unique generated the given password.

user is

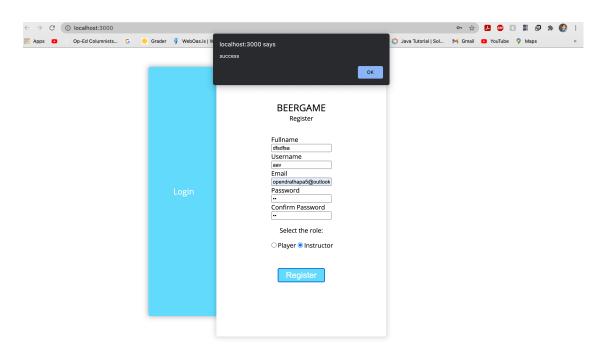


logged in,
token is
for each user for
username and

These are the tokens generated for each users.



If the user being registered has unique name, then the following alert appears



Likewise, if the user being logged in is in the database of Django, the following pop up appears.

