

# Sprint 2 - Documentation

## Beer 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.js

```
//https://stackoverflow.com/questions/1349404/generate-random-string-characters-in-javascript
function genid(length) {
  var result = "";
  var characters =
    "ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789";
  var charactersLength = characters.length;
  for (var i = 0; i < length; i++) {
    result += characters.charAt(Math.floor(Math.random() * charactersLength));
  }
  return result;
}
```

---

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.

```
<td>
  <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>
</td>
<td>
  <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>
</td>
<td>
  <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>
</td>
```

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.

```
<td align="center">
  <input
    type="number"
    style={{
      width: "50px",
    }}
    placeholder="0"
  ></input>
</td>
<td align="center">
  <input
    type="number"
    style={{
      width: "50px",
    }}
    placeholder="0"
  ></input>
</td>
```

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:

```

3
4 import React from 'react';
5 import Jumbotron from 'react-bootstrap/Jumbotron';
6
7 class Gameoption extends React.Component{
8   render(){
9     return(
10      <Jumbotron fluid>
11        <h1> Welcome to the Beer Game</h1>
12        <p>
13          Please choose one of the following to start!
14        </p>
15        <p>
16          <Button variant="primary" size="lg">Join Game</Button>{' '}
17          <Button variant="primary" size="lg">Creat Game</Button>{' '}
18        </p>
19      </Jumbotron>
20    )
21  }
22 }

```

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 user is

unique  
generated  
the given  
password.

USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
<input type="checkbox"/> Mohan				<input type="radio"/>
<input type="checkbox"/> Mohana				<input type="radio"/>
<input type="checkbox"/> Niraj				<input type="radio"/>
<input type="checkbox"/> Ravi				<input type="radio"/>
<input type="checkbox"/> Rites				<input type="radio"/>
<input type="checkbox"/> Srijana				<input type="radio"/>
<input type="checkbox"/> Urmila				<input type="radio"/>
<input type="checkbox"/> aa				<input type="radio"/>
<input type="checkbox"/> aabhishek				<input type="radio"/>
<input type="checkbox"/> abc				<input type="radio"/>
<input type="checkbox"/> as				<input type="radio"/>
<input type="checkbox"/> bibek				<input type="radio"/>
<input type="checkbox"/> ddd				<input type="radio"/>
<input type="checkbox"/> fddf				<input type="radio"/>
<input type="checkbox"/> fddf				<input type="radio"/>

logged in,  
token is  
for each user for  
username and

These are the tokens generated for each users.

Django administration

WELCOME, OTHAP. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home · Auth Token · Tokens

Auth Token

Tokens

Authentication and Authorization

Groups

Users

Select token to change

ADD TOKEN

KEY	USER	CREATED
6bd67b43a0180ab672076094205974089b3efe35	jiyan	March 23, 2021, 9:41 p.m.
6926475124d86d0e20b8038d828b56b02113fc53	as	March 23, 2021, 9:31 p.m.
a87d726f87ff9dfb2c196408db7e976a9c09fbb1	bibek	March 23, 2021, 9:30 p.m.
9b9f479ad78e72aaf4a4354e9d549021f7a4918b	fsadf	March 23, 2021, 9:28 p.m.
9d75fcd6fd7003ebaca86b4c769a2a5e0d0c8d20	ddd	March 23, 2021, 9:27 p.m.
7be9688fdca535874eb896a748463bda255ff904	sad	March 23, 2021, 9:20 p.m.
85fec877914e48c20d79484e1314dcfb3d884b64	rf	March 23, 2021, 9:18 p.m.
0b459d64bb79db3653ec7781b42d06af60dabf57	ruik	March 23, 2021, 9:17 p.m.
0ce89f8b22cbb03b8696257484d3522ef06dfdbe	ggg	March 23, 2021, 9:03 p.m.
7ffbd8c61625be4c746007a47a8b09c4dccc6f6f	Mohana	March 23, 2021, 8:29 p.m.
22dfda3c67490b79dd07f6591cec884ee06710d5	aa	March 23, 2021, 12:48 p.m.
58962d551453c074cecb85a33bb19255baad11a8	abc	March 23, 2021, 12:17 p.m.
34bb1467dee6b22297790492e40a56f2d35aaca8	fdsf	March 23, 2021, 9:23 a.m.
e64d13acc6e455b28c910d104f9c9b2e0a8bf198	hait	March 23, 2021, 9:16 a.m.
9535598fd74a38bb16fab1816d823dd1cdd8122	polargiant	March 23, 2021, 9:15 a.m.
18b67dee67659fcdc6085560e5e1b96e2cc4d958	popsym	March 23, 2021, 7:56 a.m.
4409392da093be1006829e4cb62a7db76316ea90	Srijana	March 22, 2021, 9:57 p.m.

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

localhost:3000

Apps Op-Ed Columnists... Grader WebOas.is V Java Tutorial | Sol... Gmail YouTube Maps

localhost:3000 says  
success

Login

BEERGAME  
Register

Fullname  
dfdsfsa

Username  
aav

Email  
opendrathapa5@outlook

Password  
\*\*

Confirm Password  
\*\*

Select the role:  
☐ Player ☒ Instructor

Register

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

