

SEPT Major Project Presentation

Group 5

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Interesting Features

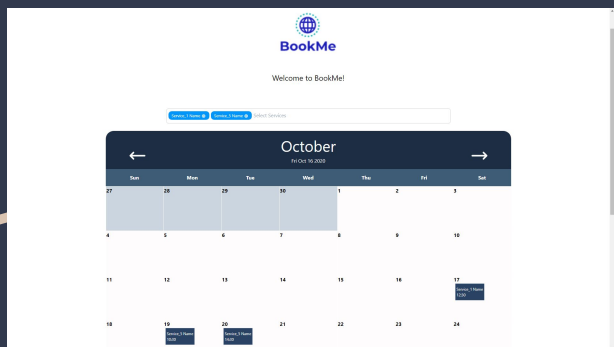
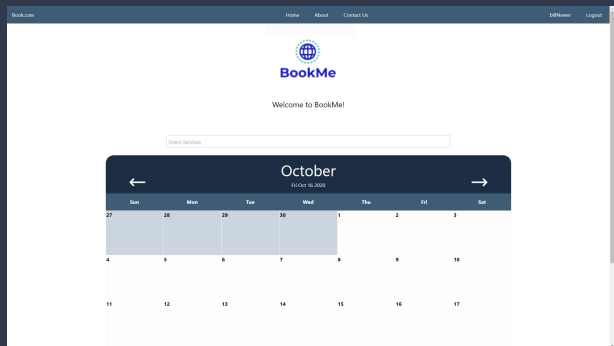
In addition to the main feature set described for the scope of the project, we also implemented a few other interesting features that help provide a more useful and secure experience for the application.

These include;

- An interactive calendar used for both;
 - booking a service as a customers,
 - adding shifts as an admin
- The dynamic ability to use the app on a mobile screen, including a drop down navigation bar
- The use of JWT session tokens for user security and role based authorization

Interactive Calendar

Book a service



Our home page is interesting because we displayed the bookings in the form of buttons on a custom calendar that we created in React.

Process of Booking a Service:

- Customer chooses one or more services first from the dropdown select menu.
- All available bookings will be displayed on the calendar for the customer to choose from.
- Each booking shows the service name and the time allocated to it.
- Booking details appear below the calendar along with a 'Book' button.

The booking process is made to be very simple and as interactive as possible.

Interactive Calendar

Add a shift

Add Shift

CHOOSE THE EMPLOYEE

Please select employee ▼

☐ - Available days
☐ - Unavailable days
☒ - Selected day/Current day

← **October** →
Fri Oct 16 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

6:30 8:30
10:30 12:30
14:30 16:30
18:30 20:30

Add Shift **Back**

The implementation of the interactive calendar was very interesting and challenging process at the same time.

- Degree of creativity that was required in order to make design user friendly, made it quite interesting
- There was a bit of learning curve in terms of how calendars work in general and how to use Date() object in javascript, which was a bit difficult in the beginning

Main Features:

- Booking a shift on specific day and at specific time
- Giving feedback
- Showing availability

Mobile Friendly

Book.com

☰

☐

- Available days

☐

- Unavailable days

☒

- Selected day/Current day

←

October

→

Fri Oct 16 2020

Select Available Days

SUNDAY

THURSDAY

MONDAY

FRIDAY

TUESDAY

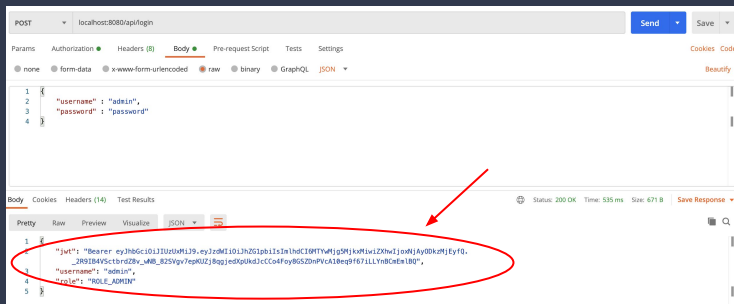
SATURDAY

WEDNESDAY

- Defaults to drop down on tablet view
- Drop down stylised depending on the logged user.
- E.g: username link will change (depending on their username) and only the pages allowed for the user will show (such as Home, Logout, etc)

JWT Session Tokens

```
public String generate(Authentication authentication) {  
  
    UserDetailsImpl userPrincipal = (UserDetailsImpl) authentication.getPrincipal();  
  
    return Jwts.builder()  
        .setSubject((userPrincipal.getUsername()))  
        .setIssuedAt(new Date())  
        .setExpiration(new Date((new Date()).getTime() + jwtExpirationMs))  
        .signWith(SignatureAlgorithm.HS512, jwtSecret)  
        .compact();  
}
```



With the addition of JWT Session Tokens, it allowed us to add a layer of security to our application, as well as giving us the ability to configure roles within the app itself.

As our app allows several different use cases including an admin, employees and of course customers, JWT's enabled the ability to introduce proper authentication for each user, and authorization for certain role specific features of the application. These features include but are not limited to;

- Creating employee accounts (admin)
- Booking of services (customer & admin)
- Adding shifts (admin)

What worked well?

Teamwork:

- **Support:** Everyone supported each other through whole development process
- **Information Sharing:** All the members, try to share as much good resources as possible

Development Process:

- **Coding:** For each sprint, implementing new features became easier because we aimed to make our code reusable from the start

Tools:

- **Microsoft Teams:** Daily standup meetings, sprint planning and reviews done through teams.
- **Github:** Allowed for ease of use with different branches being for different functionalities implemented.

What could be improved?

Development Process:

- **Testing:** Frontend testing was left out in the beginning, so that team can focus on functionality
- **Deployment and CI:** Our team struggled a bit in terms of deploying the project to AWS and make CI work

Tools:

- **Task Management:** Our team struggled quite a bit with learning how to use click up in the right way

Documentation:

- **Errors and bugs:** Keeping track of bugs in the code so that they are easier to fix later on.

What surprised us?

Development Process:

- **Testing:** Shortage of video material for frontend testing with Jest

Tools:

- **Click up:** There was some restriction in terms of functionality

Project Progression:

- We were surprised to how smoothly a project of this size went due to the use of Sprints and Stand-ups

What did we learn?

Teamwork:

- **Daily stand up:** We learned how effective daily stand up meetings can be
- **Scrum Process:** easy and organised

File Management:

- **Github:** how to structure branches properly and merging

Development Process:

- **Media Queries:** how to structure visual layout for tablet/phone

Conclusion and Q&A

Thank you for listening!!