



MEDAPP FINAL PRESENTATION

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Introduction



This presentation will:



Introduce the project and give background.



Go through existing applications.



Analyze the research carried out.



Explain how the application was designed, implemented and tested.



Give a brief overview of how the project was managed along with how it could be further developed.



Conclude with a summary, demo and a question and answers session.

Project Background

MedApp is a digital healthcare application for use in hospitals to facilitate the booking of medical appointments and distribution of digital prescriptions.

The application will be very beneficial to medical professionals, hospital admin staff, patients and pharmacists.

It will increase efficiency in hospitals and pharmacies while also reducing errors in the current system of traditional handwritten prescriptions.

Existing Applications

Swiftqueue (booking system for medical appointments used by the HSE and NHS).

MyClinic.ie (online service that provided a variety of medical services).

SimplyBook.me (online booking system for any service-based industry).

Some countries have their own government run booking systems for medical appointments and GP services.

Research and Feasibility

Carried out my own research in the form of one interview and an online survey (37 responses).

Both were very beneficial in understanding what people wanted to get out of the application.

Good mix of feedback from nurses, student nurses, medical students and potential patients.

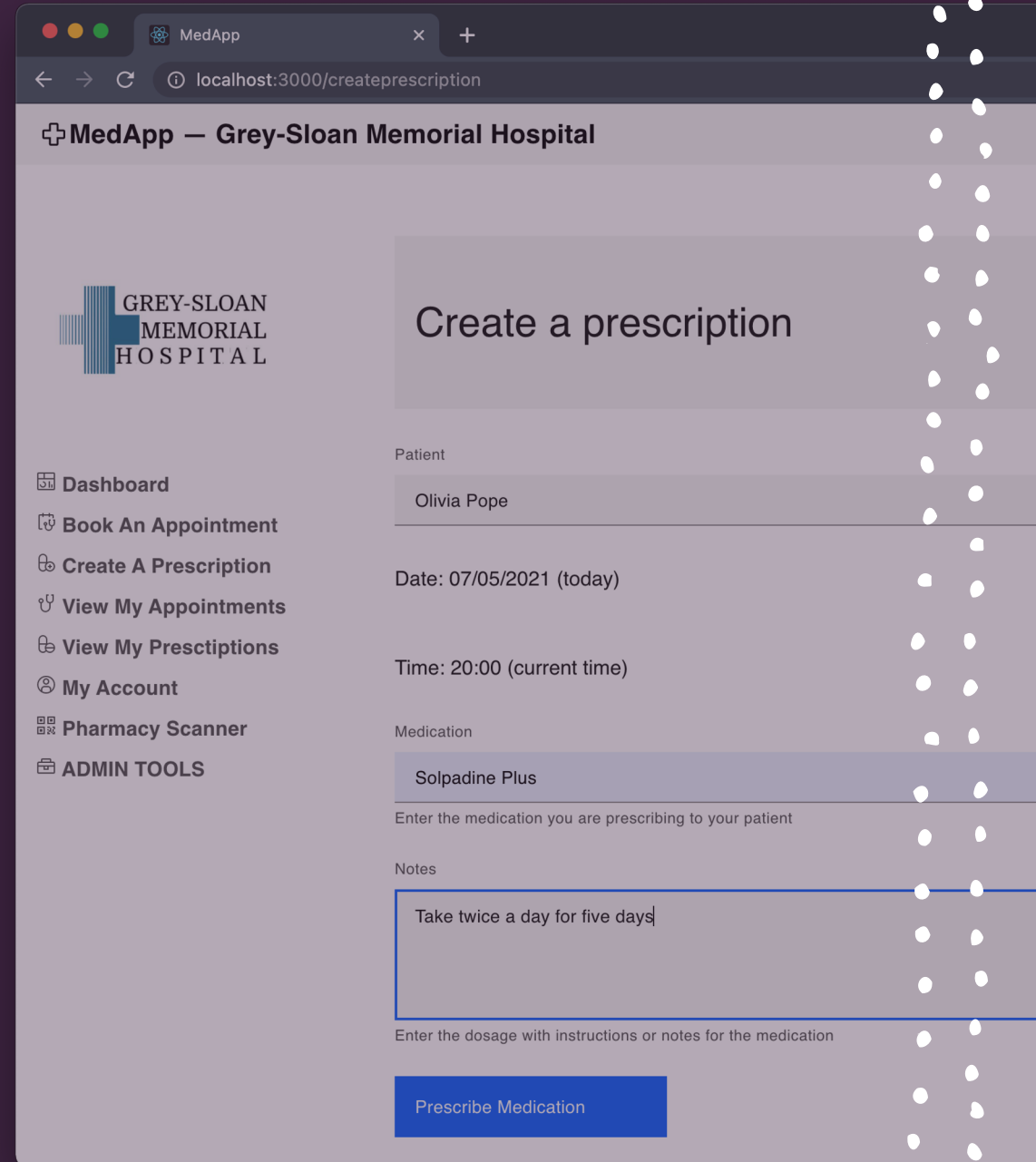
The majority of people surveyed don't currently use an online booking system and would find one useful.

They were then all asked if they would use a digital prescription over a printed one. Everyone answered yes, bar one medical professional.

Research was also carried out from studies in England, Taiwan and China.

Design

- Front-end was designed using IBM's Carbon Design System.
- This was installed on top of the ReactJS framework.
- Individual Carbon components were then added to the application where necessary.
- The MERN stack of apps was used to implement the front and back-end of the application.



Implementation



MERN Stack of apps



MongoDB (back-end database) with Mongoose library



ExpressJS (back-end JavaScript framework, works in conjunction with NodeJS)



ReactJS (JavaScript front-end framework)



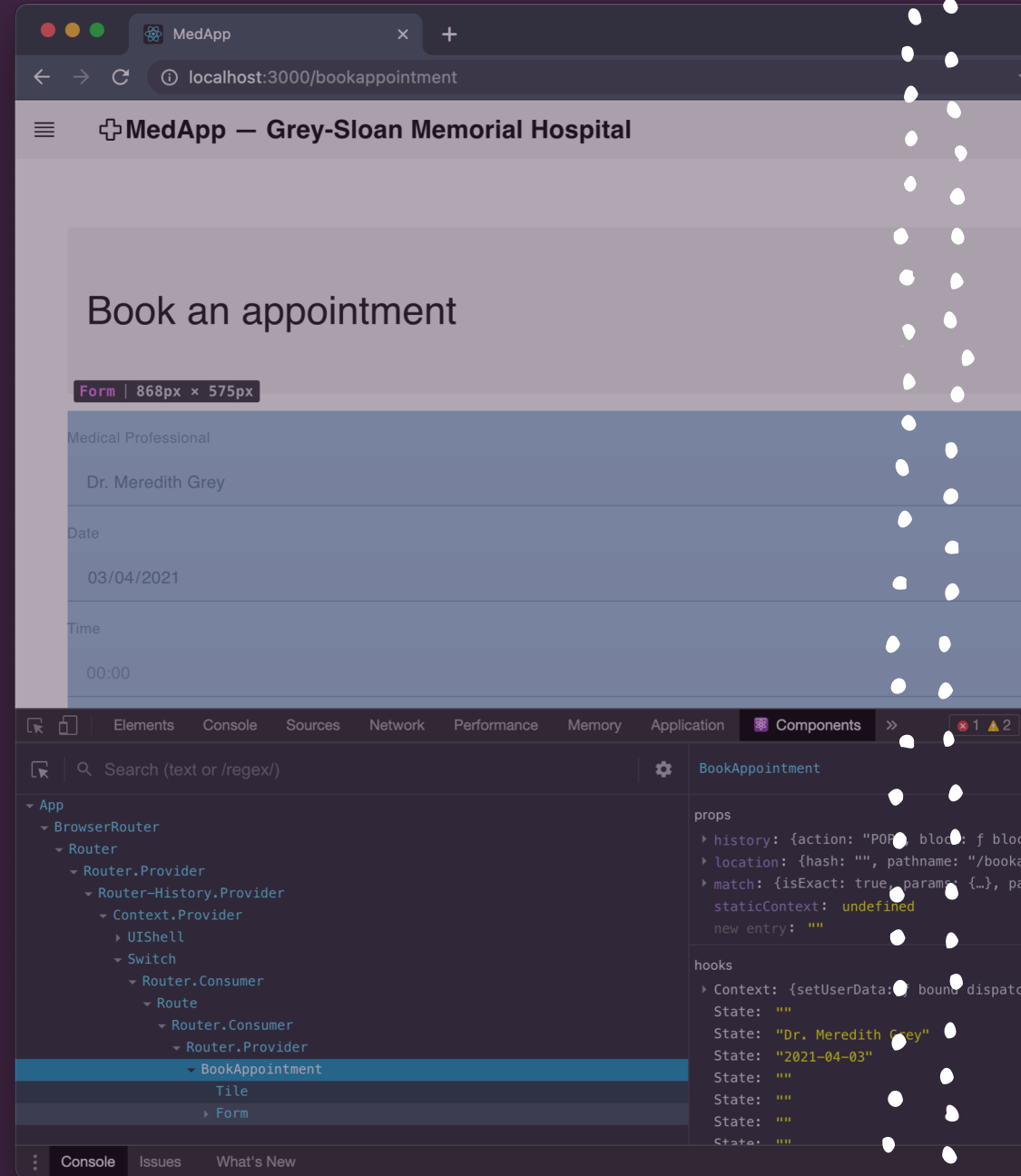
NodeJS (local server used to communicate between the front and back-end)



The Carbon Design System was installed on top of the ReactJS framework for front-end design.

Testing

- Overall testing was carried out as each part of the application was being built.
- For this, Chrome DevTools and React Developer Tools were used.
- Functional tests were carried out to test individual application features and functionality.
- User testing was also carried out to get additional feedback.



Project Management and Future Development

The project was originally planned out using a Gantt chart to help manage each stage of the project development.

The 'Things 3' app was then used as a task management system for individual tasks.

The application has the potential to be developed further with additional features and functionality.

Some of these include:
A notification system, test results, appointment check in system,

messaging service, virtual appointments, booking for others and a system for COVID-19 tests and vaccinations

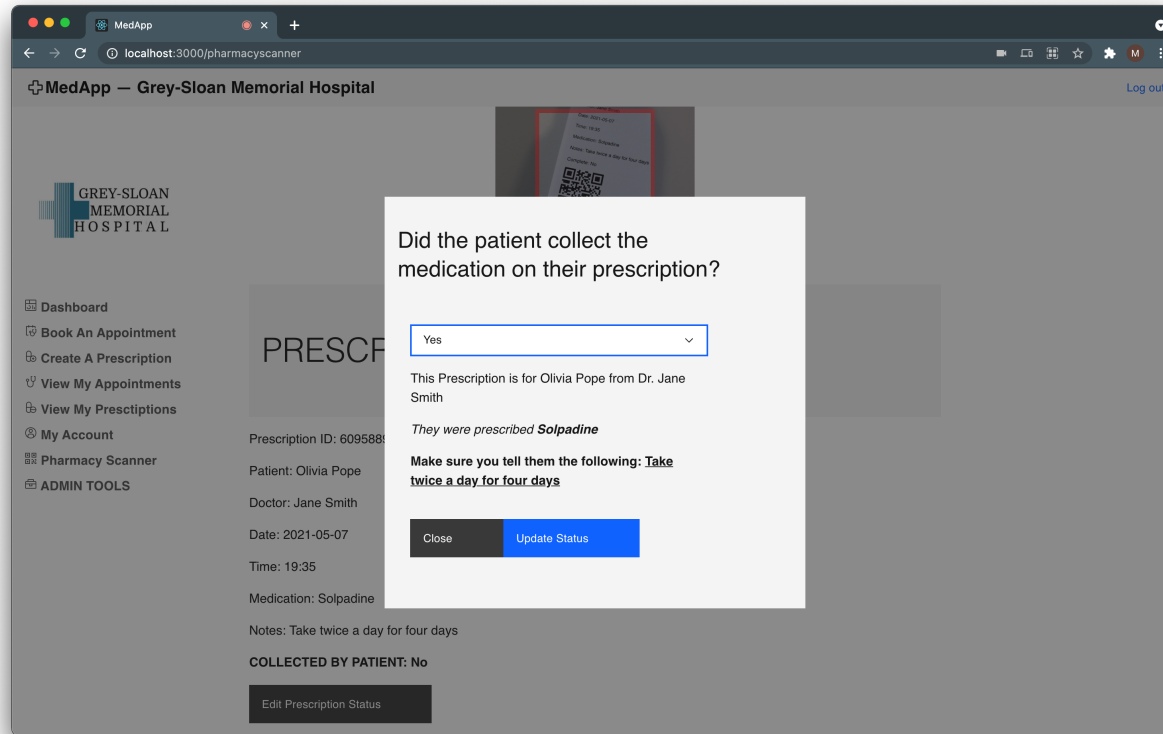
Conclusion

The project set out with a goal of simplifying the process of booking medical appointments and processing medical prescriptions.

Research was carried out to assess the current systems in place and survey potential users to gather valuable feedback.

This research was analyzed and used to help design and develop the application. The application was then tested by potential users who gave positive feedback.

Overall, a proof-of-concept version of the application was created, meeting the original goal set out at the beginning of the project.



Demo and Q&A

FULL WALK THROUGH OF THE APPLICATION
AND TIME FOR QUESTIONS AFTERWARDS.