TailorBook: Custom Appointment Websites for Small Businesses

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Introduction

Small businesses often struggle to create and manage their own websites for booking appointments, leading to missed opportunities and frustrated customers. While there are existing platforms that offer booking systems, many are either too broad in scope, too generic, or too expensive, leaving small businesses with few options. Our project aims to address this gap by developing a web-based app that allows businesses to easily create and customize their own websites with booking services tailored to their business and everything it provides. This app will let the user modify prices, update availability, and upload pictures of their services, all through a user-friendly template. This approach empowers businesses and individuals to maintain a professional online presence without the need for extensive technical knowledge.

User Needs and Requirements

The design of this web-based app will focus on simplicity and customization. Business owners will be able to select from premade templates that they can easily modify to match their brand's look and feel. The app will include features like drag-and-drop elements, fields for adjusting prices and availability, and options for uploading service images. Technologies like React will be used for the interactive user interface, Node.js for handling the backend logic, and a database like MongoDB to store

business data and customer appointments. This combination of tools will ensure that the app is both functional and easy to use for non-technical business owners.

The target users for this project are small business owners in industries like salons, spas, or clinics, or solo business owners running smaller services like music lessons or tutoring, who need an affordable and customizable booking solution. These users will not necessarily have any real knowledge about website management and web development, so we intend to use tools and APIs that will bridge the gap and put the tools they need in their hands with as little trouble as possible. The app will support their day-to-day activities by streamlining the process of setting up and managing an appointment booking website, allowing them to focus on their business and their customers. To understand their needs, we plan to conduct surveys and interviews with small business owners to gather insights on what features are most important to them. The app's design and functionality will be evaluated through user testing with these business owners, ensuring that the final product meets their requirements and is easy to use.

Impact and Innovation

This project will innovate in the problem space by providing a highly customizable, yet easy-to-use, solution for small businesses that need a booking website. It will help these businesses create a professional online presence, which can lead to increased customer satisfaction and business growth. By offering a tailored and affordable option, the app has the potential to benefit small businesses at scale, empowering them to compete with larger companies that have more resources. This

project could also contribute to the broader community by promoting digital literacy and helping small businesses thrive in the digital age.

Prior Work

Several examples of booking websites and services do exist. A Forbes article by Kimberlee Leonard[1] lists Square Appointments, Calendly, Setmore, Appointy, and SimplyBook.me as major services for business booking. Among these services, automated email reminders, recurring appointments, and accessibility on mobile devices are common threads. Our project will innovate relative to prior works by providing both booking functionality and a web presence in one service. Email reminders and the ability to set recurring appointments are crucial, and will certainly be features we implement and focus on. We will make sure the templates for the users' websites are as good looking on mobile devices as on larger ones, and that the user can add images and logos to appropriate parts of their site in a polished way. Our goal is to give small business owners a place to demonstrate what makes their service special while also giving them the tools they need to distribute it to customers.

Project Concept

Within our overall goal to provide a website and booking platform, there are several smaller features and components we intend to implement. Among these are customizable templates, calendar management, appointment reminders, and a dashboard to manage product and service listings and prices.

Component 1: Customizable Templates

- **Problem Addressed:** Small businesses need a quick, easy way to set up a professional-looking presence on the web without technical skills in HTML/CSS or other web design tools.

- **User Needs:** Businesses can modify their website by adding their logo and product photos, as well as custom colors and themes without coding.

- **Innovation:** Provides a user-friendly template editor, reducing the complexity of website customization.

- **How to Accomplish:** Develop a series of simple front-end templates with customizable fields, font and color selection, etc.

- **Technological Tools:** HTML, CSS, JavaScript (React).

- **Plan:** Focus on building the template first and then make key elements editable.

- **Evaluation:** User tests to ensure ease of use; success is measured by how easily non-technical users can customize their site.

Component 2: Calendar and Availability Management

- **Problem Addressed:** Businesses need a system to manage bookings and show real-time availability.

- **User Needs:** The business owner needs to control when they are available for appointments and allow clients to book based on those times. The customer must be able to easily see available times and select their own booking time.

- **Innovation:** Offers a simplified scheduling interface with automatic updates for availability.

- **How to Accomplish:** Implement a calendar integration that updates in real-time as users make bookings.

- **Technological Tools:** Google Calendar API implemented through Node.js, React for front-end.

- **Plan:** Start by integrating the calendar with the booking system, allowing businesses to manage their schedule easily.

- **Evaluation:** User tests and functional tests to ensure the booking and availability features work smoothly.

Component 3: Appointment Reminder System

- **Problem Addressed:** Businesses need an easy way to remind clients of their upcoming appointments to reduce no-shows.

- **User Needs:** Automated reminders via email or SMS that notify clients about their scheduled appointments.

- **Innovation:** Provides an automated system that sends reminders without the need for manual input from the business.

- **How to Accomplish:** Set up an automated reminder system that triggers based on the booking time.

- **Technological Tools:** Twilio API for SMS, or SendGrid for email reminders.

- **Plan:** Integrate the reminder system into the booking flow and test with sample appointments.

- **Evaluation:** Success will be measured through code tests ensuring reminders are sent at the correct times, and user feedback on its effectiveness.

Component 4: Service Management Dashboard

- **Problem Addressed:** Businesses need an easy way to add, remove, or update the services they offer including prices, images where applicable, and other pertinent information.

- **User Needs:** Business owners need a dashboard to manage their services (e.g., adding new services or updating prices), in a way that presents them cleanly to the user on the website itself.

- **Innovation:** Simplifies service management by allowing businesses to quickly update their offerings without needing any technical knowledge.

- **How to Accomplish:** Develop a dashboard where businesses can edit services, prices, and descriptions.

- **Technological Tools:** React for the dashboard UI, MongoDB or Firebase for storing service data.

- **Plan:** Build the dashboard and ensure changes are reflected on the booking site in real time.

- **Evaluation:** User tests to ensure businesses can easily manage their services, with success determined by the ease of updating service details.

Project Plan

To successfully complete this project, our team will draw on our strengths in web development, user experience design, and project management. We have experience in coding both the frontend and backend of web applications as well as in designing user-friendly interfaces and managing data. Together, our skills are well-suited to developing a customizable, functional, and easy-to-use app.

A brief outline of our plans for each planned sprint is shown in the chart below:

ID	Name	Sep, 2024		Oct, 2024				Nov, 2024			
		23 Sep	29 Sep	06 Oct	13 Oct	20 Oct	27 Oct	03 Nov	10 Nov	17 Nov	24 Nov
1	TailorBook Project										
2	▼ Sprint 1										
6	Basic Site Framework (HTML/CSS)										
7	Booking Database for Calendar Info										
8	Basic Booking, Cancelling, Reminders										
3	▼ Sprint 2										
9	Products, Services, Customer Data										
4	▼ Sprint 3										
10	Site Customization, Templates, Photos										
12	Figure Out Domains/Hosting										
5	▼ Sprint 4										
11	Polish, Optimization										

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