Website Building Application

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1. Introduction

The Website Building Application aims to enable users to design, create, and publish websites with minimal technical expertise. The platform will cater to individual users, small businesses, and teams looking for customizable and professional websites.

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2. Functional Requirements

2.1 Must-Have Features

These are the core features required to ensure the functionality of the application.

User Stories

1. **User Registration and Login**

   o As a user, I want to create an account using my email and password so that I can access the platform securely.

   o As a user, I want to log in to my account to manage my websites.

2. **Template Selection**

   o As a user, I want to browse through a library of templates so that I can choose a starting point for my website.

   o As a user, I want to preview templates to see how they look before selecting one.

3. **Drag-and-Drop Website Editor**

   o As a user, I want to drag and drop elements (text, images, videos) onto my page so that I can design my website visually.

   o As a user, I want to customize colors, fonts, and layouts to match my preferences.

   o As a user, I want an undo/redo option to easily fix mistakes.

4. **Website Publishing**

   o As a user, I want to publish my website on a subdomain provided by the platform so that it becomes accessible online.

5. **Responsive Design**

   o As a user, I want my website to look good on all devices (mobile, tablet, desktop) without additional effort.

6. **Basic Website Analytics**

   o As a user, I want to view the number of visitors to my website so that I can track its performance.

7. **Customer Support**

   o As a user, I want a help section or live chat support to resolve issues while using the platform.

2.2 Nice-to-Have Features

These features are not critical for the application but will enhance the user experience.

User Stories

1. **Custom Domain Support**

   o As a user, I want to link my custom domain to my website so that I can use my personalized URL.

2. **Pre-Built Components**

   o As a user, I want access to pre-designed components like contact forms, galleries, and buttons to speed up my website creation process.

3. **Collaboration Tools**

   o As a team user, I want to invite team members to collaborate on building a website so that we can work together efficiently.

4. **Advanced Analytics**

   o As a user, I want detailed analytics (bounce rate, session duration, traffic sources) to understand user behavior on my website.

5. **SEO Tools**

- o As a user, I want to optimize my website for search engines by adding meta titles, descriptions, and keywords.

6. **Offline Mode**

- o As a user, I want to work on my website offline and sync my changes when I reconnect to the internet.

2.3 Additional Features

These are optional features that add value and differentiation to the platform.

User Stories

1. **E-Commerce Functionality**

   - o As a user, I want to add an online store to my website to sell products and accept payments.

2. **AI-Assisted Website Design**

   - o As a user, I want an AI-powered assistant to suggest layouts and content based on my preferences and industry.

3. **Third-Party Integrations**

   - o As a user, I want to integrate third-party tools like Google Maps, YouTube, and social media widgets into my website.

4. **Multi-Language Support**

   - o As a user, I want to create websites in multiple languages to cater to a global audience.

5. **Custom Code Editor**

   - o As a developer, I want the option to add custom HTML, CSS, and JavaScript to enhance my website's functionality.

6. **Automated Backups**

   - o As a user, I want my website to be automatically backed up so that I can restore it in case of errors.

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3. Non-Functional Requirements

1. **Performance**: The platform should load pages and editor tools within 2 seconds.

2. **Scalability**: The application should handle up to 100,000 users concurrently.

3. **Security**:

   o   All user data must be encrypted in transit (HTTPS).

   o   Passwords should be hashed using a secure algorithm (e.g., bcrypt).

4. **Usability**: The platform should be intuitive and require minimal training for new users.

5. **Cross-Browser Compatibility**: The platform must function seamlessly on major browsers (Chrome, Firefox, Safari, Edge).

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4. Technology Stack

1. **Frontend**: To be decided (for example React.js, Redux, Tailwind CSS).

2. **Backend**: To be decided (for example Node.js, Express.js).

3. **Database**: To be decided (for example MongoDB for data storage, Redis for caching).

4. **Hosting**: To be decided (for example AWS or Vercel for website hosting and deployment) .

5. **Payment Gateway**: To be decided (for example Stripe for handling payments).

6. **Analytics**: To be decided (for example Google Analytics API or custom tracking solution).

This document prioritizes the features into essential, desirable, and optional categories to ensure a phased development approach and cater to diverse user needs effectively.