**Product Requirements Document (PRD)**

**Project Name**

**Simple Blog**

**Project Description**

The goal of this project is to create a Blog web application using Node.js, Express.js, and EJS. The application will allow users to create and view blog posts. Posts will not persist between sessions as no database will be used in this version of the application. Styling will be an important aspect of this project to ensure a good user experience.

**Example**

A similar example of what this project aims to achieve can be found at [Paul Graham's Essays](http://www.paulgraham.com/articles.html).

**Deliverables**

1. **Node Project**: A Node.js project that provides the core functionality of the website.
2. **EJS Files**: At least one EJS file to structure the website.
3. **CSS File**: At least one CSS file for styling the website.

**Features**

1. **Post Creation**: Users should be able to create new posts.
2. **Post Viewing**: The home page should allow the user to view all their posts.
3. **Post Update/Delete**: Users should be able to edit and delete posts as needed.
4. **Styling**: The application should be well-styled and responsive, ensuring a good user experience on both desktop and mobile devices.

**Technical Requirements**

1. **Node.js & Express.js**: The application will be a web server built using Node.js and Express.js. Express.js will handle routing and middleware.
2. **EJS**: EJS will be used as the templating engine to generate dynamic HTML based on the application's state.
3. **CSS**: Custom CSS, possibly augmented with Bootstrap, will be used to style the application.

**Detailed Requirements**

**Functional Requirements**

**1. Home Page**

* **URL**: /
* **Description**: Displays a list of all blog posts. Each post should show the title and an excerpt of the content.
* **Components**:
  + List of blog posts.
  + Links to create a new post, view, edit, and delete existing posts.

**2. Create New Post**

* **URL**: /post/new
* **Description**: Form to create a new blog post.
* **Components**:
  + Input field for the post title.
  + Textarea for the post content.
  + Submit button to save the post.

**3. View Post**

* **URL**: /post/:id
* **Description**: Displays the full content of a single post.
* **Components**:
  + Title of the post.
  + Full content of the post.
  + Links to edit and delete the post.

**4. Edit Post**

* **URL**: /post/edit/:id
* **Description**: Form to edit an existing post.
* **Components**:
  + Input field pre-filled with the current post title.
  + Textarea pre-filled with the current post content.
  + Submit button to update the post.

**5. Delete Post**

* **URL**: /post/delete/:id
* **Description**: Endpoint to delete a post. This action can be triggered from the home page or the view post page.
* **Components**:
  + Confirmation prompt before deleting the post.

**Non-Functional Requirements**

**1. Usability**

* The application should be user-friendly and intuitive.
* Forms should include client-side validation to ensure data integrity before submission.

**2. Performance**

* The application should load quickly and handle multiple users simultaneously without significant performance degradation.

**3. Compatibility**

* The application should be compatible with all major browsers (Chrome, Firefox, Safari, Edge).
* The application should be responsive and work well on both desktop and mobile devices.

**4. Maintainability**

* The codebase should be well-documented and organized to facilitate future maintenance and updates.
* The project should follow best practices for Node.js and Express.js development.

**Design Requirements**

**1. Layout**

* The layout should be clean and straightforward, with a focus on readability.
* Use a consistent layout for all pages, with a header, main content area, and footer.

**2. Styling**

* Use CSS and possibly Bootstrap for styling.
* Ensure the application is visually appealing and easy to navigate.
* The design should be responsive, adapting to different screen sizes.

**UX Wireframes:**

**1. Home Page**

**Description**: The home page displays a list of all blog posts in the left sidebar. The main content area allows users to create a new post and displays the selected post or a welcome message if no post is selected.

**Layout**:

* **Header**: Navigation bar with links to Home, New Post, and possibly other future features.
* **Left Sidebar**: List of blog posts with links to view each post.
* **Main Content**: Welcome message or selected post content.

**Wireframe**:

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| Simple Blog |

|---------------------------------------|

| Home | New Post | ... |

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| Post Title 1 |

| Post Title 2 |

| ... |

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| Welcome or Post Content |

| |

| |

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**2. Create New Post Page**

**Description**: Form to create a new blog post. The left sidebar still shows the list of blog posts.

**Layout**:

* **Header**: Navigation bar with links to Home, New Post, and possibly other future features.
* **Left Sidebar**: List of blog posts with links to view each post.
* **Main Content**: Form to create a new post.

**Wireframe**:

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| Simple Blog |

|---------------------------------------|

| Home | New Post | ... |

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| Post Title 1 |

| Post Title 2 |

| ... |

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| Form: |

| Title: [\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] |

| Content: [\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] |

| [\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] |

| [\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] |

| [Submit Button] |

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**3. View Post Page**

**Description**: Displays the full content of a single post. Includes links to edit and delete the post. The left sidebar still shows the list of blog posts.

**Layout**:

* **Header**: Navigation bar with links to Home, New Post, and possibly other future features.
* **Left Sidebar**: List of blog posts with links to view each post.
* **Main Content**: Full post content with edit and delete options.

**Wireframe**:

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| Simple Blog |

|---------------------------------------|

| Home | New Post | ... |

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| Post Title 1 |

| Post Title 2 |

| ... |

-----------------------------------------

| Post Title |

|---------------------------------------|

| Full Post Content |

| ... |

| ... |

|---------------------------------------|

| [Edit Button] [Delete Button] |

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**4. Edit Post Page**

**Description**: Form to edit an existing post. The left sidebar still shows the list of blog posts.

**Layout**:

* **Header**: Navigation bar with links to Home, New Post, and possibly other future features.
* **Left Sidebar**: List of blog posts with links to view each post.
* **Main Content**: Form to edit the selected post.

**Wireframe**:

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| Simple Blog |

|---------------------------------------|

| Home | New Post | ... |

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| Post Title 1 |

| Post Title 2 |

| ... |

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| Form: |

| Title: [Pre-filled Title\_\_\_\_\_\_\_\_] |

| Content: [Pre-filled Content\_\_\_\_\_] |

| [\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] |

| [\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] |

| [Submit Button] |

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**5. Delete Confirmation (Optional Modal)**

**Description**: A modal or a simple confirmation prompt to confirm the deletion of a post. The left sidebar still shows the list of blog posts.

**Layout**:

* **Header**: Navigation bar with links to Home, New Post, and possibly other future features.
* **Left Sidebar**: List of blog posts with links to view each post.
* **Main Content**: Delete confirmation modal.

**Wireframe**:

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| Simple Blog |

|---------------------------------------|

| Home | New Post | ... |

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| Post Title 1 |

| Post Title 2 |

| ... |

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| Are you sure? |

|---------------------------------------|

| Do you really want to delete this post?|

| [Cancel] [Delete] |

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These updated wireframes provide a clear layout for the application, including a top navigation bar and a left sidebar for better navigation. This structure will make the application more user-friendly and intuitive. Let me know if you need any further adjustments or additional details!

**Project Timeline**

**Week 1**

* Set up the project environment and initialize the Node.js project.
* Create the basic project structure with necessary directories and files.
* Implement the home page with a list of posts.

**Week 2**

* Implement the create new post functionality.
* Implement the view post functionality.
* Style the home page and post creation form.

**Week 3**

* Implement the edit post functionality.
* Implement the delete post functionality.
* Style the view post and edit post pages.

**Week 4**

* Conduct thorough testing of all features.
* Make final adjustments to styling and responsiveness.
* Prepare project documentation.

**Summary**

This Product Requirements Document outlines the key features and technical requirements for the Simple Blog web application. By following this document, we aim to create a functional, well-styled, and user-friendly blog application using Node.js, Express.js, EJS, and CSS.