

# Software Development Requirements Document

## Online Gift Certificate Maker Application

### 1. Introduction

The purpose of this document is to outline the requirements for developing an Online Gift Certificate Maker application using pdfmake.org, React, Node.js, and JavaScript. The application will allow users to generate gift certificates by providing their first name, last name, and gift description. The generated certificates will be displayed on an 8.5 x 11 inch document.

### 2. Features and Functionality

#### 2.1 User Inputs

The application should prompt the user to enter the following information:

- First name: A text input field for the user's first name.
- Last name: A text input field for the user's last name.
- Gift Description: A text input field for the gift description.

#### 2.2 Certificate Generation

Upon receiving the user inputs, the application should generate a gift certificate with the following characteristics:

- Dimensions: The generated certificate should have a size of 8.5 x 11 inches.
- Background: The user inputs should be displayed over the background of the certificate.
- Text Styling: The text on the certificate should be visually appealing and easy to read.

### 3. Technology Stack

The application should be developed using the following technologies:

- Frontend: React.js
- Backend: Node.js

- PDF Generation Library: pdfmake.org
- Language: JavaScript

## 4. User Interface

The user interface should be developed using React.js and should consist of the following components:

- Input Form: A form with input fields for the first name, last name, and gift description.
- Optional for Version 1.0 - Preview: An area where the user can preview the generated gift certificate before downloading.

## 5. Backend

The backend of the application should be implemented using Node.js. It should handle the following tasks:

- Receive user inputs from the frontend.
- Generate a PDF document using the pdfmake.org library, incorporating the user inputs and the predefined certificate design.
- Send the generated PDF document to the frontend for download.

## 6. Testing (Optional for v 1.0)

The application should undergo thorough testing to ensure its functionality and reliability. The following types of testing should be performed:

- Unit Testing: Test individual components and functions.
- Integration Testing: Test the interaction between frontend and backend components.
- User Acceptance Testing: Conduct testing with real users to validate the application against their requirements and expectations.

## 7. Deployment and Hosting

The application should be deployed to a server that supports Node.js applications and can host the frontend React.js code. Some popular hosting options for Node.js applications include Heroku, AWS, and Azure.

## 8. Security Considerations (Ver 5.0)

When handling user data, the application should adhere to industry-standard security practices. This includes:

- Encrypting sensitive information, such as user names and gift descriptions, during transmission.
- Implementing appropriate access controls to protect user data.
- Regularly updating dependencies and libraries to address security vulnerabilities.

## 9. Documentation (Ver 2.0)

Comprehensive documentation should be created for the application, including:

- Installation instructions.
- Usage guidelines for end-users.
- API documentation for any backend services.
- Development guidelines for future maintenance and enhancements.

## 10. Timeline

The development of the Online Gift Certificate Maker application should be completed according to the following timeline:

- Requirements Gathering: 1 hour
- Design and Planning: 4 hours
- Frontend Development: 4 Days
- Backend Development: 2 Days
- Testing and Bug Fixes: 2 Days
- Deployment: 1 week

Please note that this timeline is an estimation and may vary depending on the complexity of the application and the availability of resources.

## 11. Conclusion

This Software Development Requirement Document outlines the requirements for developing an

