**Software Requirements Specification (SRS)**

**Student Registration System with Stripe Integration**

**1. Introduction**

**1.1 Purpose**

This project is a web-based student registration system integrated with Stripe. It allows students to register and pay a $50 fee securely and efficiently.

**1.2 Scope**

The system will:

* Enable students to register with their details.
* Process payments through Stripe.
* Send confirmation upon successful registration.

**1.3 Intended Audience**

This document is for developers, testers, and stakeholders to define system requirements.

**1.4 References**

* [Django Documentation](https://docs.djangoproject.com)
* [Stripe API Documentation](https://stripe.com/docs)

**2. Functional Requirements**

**2.1 Registration**

* **FR1**: Students can fill out a registration form with their name, email, phone, and course selection.
* **FR2**: Form validation ensures completeness before proceeding.

**2.2 Payment**

* **FR3**: Redirect students to a Stripe payment page upon form submission.
* **FR4**: Process a $50 payment securely via Stripe.
* **FR5**: Handle both success and failure scenarios.

**2.3 Confirmation**

* **FR6**: Display a confirmation page after successful payment.
* **FR7**: Send an email with payment details to the student.

**3. Non-Functional Requirements**

* **NFR1**: All communications must use HTTPS for encryption.
* **NFR2**: Payment data must comply with PCI standards and not be stored on the server.
* **NFR3**: The system should handle 100 simultaneous registrations without performance issues.
* **NFR4**: Registration and payment should complete within 3 minutes.
* **NFR5**: The UI must be responsive on desktop, tablet, and mobile devices.

**4. System Features**

**4.1 User Interface**

* Registration form with field validations.
* Payment page hosted via Stripe.
* Confirmation page summarizing registration and payment details.

**4.2 Payment Integration**

* Seamless integration with Stripe’s API.
* Support for test and live payment environments.

**5. Assumptions and Constraints**

**5.1 Assumptions**

* Users have stable internet and valid payment methods.
* Stripe API keys are configured correctly.

**5.2 Constraints**

* Payments are processed in USD only.
* System relies on Stripe availability for transactions.

**6. External Interface Requirements**

**6.1 Software Interfaces**

* **Stripe API**: Manages payment processing.
* **Email Service**: Sends registration confirmation.

**6.2 Hardware Interfaces**

* Web server with at least 2 GB RAM and 10 GB storage.

**7. Security Requirements**

* **Secure Data Transmission**: Use HTTPS to encrypt data.
* **Fraud Prevention**: Handle invalid/expired card scenarios gracefully.

**8. Glossary**

* **Stripe**: A payment platform for secure online transactions.
* **PCI Compliance**: Standards for card data protection.
* **HTTPS**: Protocol for secure data communication.

Top of Form

Bottom of Form