**App Design Specification**

**Introduction**

This document describes the design and flow of a web application that geolocates users and presents a payment page relevant to their country.

**System Overview**

The application consists of a web front end, an IP geolocation service, and payment pages specific to each country.

**Key Features**

1. User Navigation to Default Page
2. IPGeolocation to get user's country ID
3. Display of country-specific payment page

**User Interface**

User Navigates to the default page, and the after collection of the IP address , or selection of default language , the Strings displayed on the Front end app , change after retrieving the geo-specific language content .

**Default Page**

The default page hosts the application. On user navigation to this page, it interacts with the IPGeolocation web service to determine the user's country ID. The page then updates to display the relevant payment page.

**System Architecture**

The application follows a simple Client-Server architecture. The Client is a web browser running the web app. The Server hosts the web service for IPGeolocation and handles payment page display logic. The Webservice is connected to a No SQL databases, that stores all the page content in different languages.

**IPGeolocation Web Service**

This service is an external system that receives an IP address and returns a country ID corresponding to that IP. This service is utilized when the default page is loaded to determine which payment page should be shown.

**Payment page Web Service**

This is a server-side component. Once the user's country ID is known, this service will look up all the page content as per specific language to the Country ID , then return the page content to the front-end application.

**Component Interaction**

1. User navigates to the default page.
2. The client-side code on the page interacts with the IPGeolocation web service using the user's IP address.
3. The IPGeolocation web service returns the country ID corresponding to the user's IP.
4. The country ID is sent to the backend server , that serves the payment page content.
5. The server collects the payment page content relavent to the received country ID and sends it back to the client.
6. The client server app updates the payment page content (strings) , from the default page content.

**Error Handling**

In the case of errors (like IPGeolocation service unavailability or an unsupported country ID), appropriate error messages will be displayed to the user, and a default payment page will be served. Default payment page can be in a language that is recognized the most globally such as English.

**Security Considerations**

All communication with IPGeolocation and payment processing should be over HTTPS to protect the user's information and privacy.