

## Ionic 4 Paypal Payment Integration for Apps and Progressive Web Apps

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**Abstract** - Today in day to day life we make online transaction for each and every needs. As our country is progressing towards digital initiative, our government is also trying to make the country use digital money. Also after the demonitisation people have begin to use online transactions as it is very convinient to everyone. But also there are very difficulties while doing transactions. The payment gateway used for transactions using credit/debit card is quite complicated. The credentials entered should be accurate. We have eliminated this hectic job by auto entering card details by scanning the card of the user and entering the credentials in a automated fashion. This helps user to cut short a hefty task and execute their transactions in a simplifies manner. Every time a error occurs if a user enters a wrong credential for performing a transaction. Multiple such attempts would result in blocking of a card temporarily or permanently. Also people with physical difficulties find it difficult for entering card details. Also there are UPI option available but as we know, their poor server management results in payment being stuck midway. The payment gateway of card is very reliable. In this either the payment is processed or else is rejected. Our project has taken into consideration of the above events and various difficulties faced by a person in day to day life. We tried to overcome this and find a solution for providing some support to our fast paced rapidly growing digital payment sector of our country.

**Key Words** Saas, HTML5, CSS, Ionic, Sandbox, Transaction.

### 1. INTRODUCTION

Ionic4 and Pay-Pal merging with Artificial Intelligence can be used while accessing Pay-Pal developer options for performing the transactions and verifying the same using sandbox environment. This helps a user to carry out an online transaction using his/her credit card or debit card details easily without any hassle. This will eliminate the error created by the user knowingly or by mistake. We will be introduced with new technology that will make our life more sophisticated and more flexible. The time has come to replace the age old methods with some new and innovative techniques. Payment processing is always a taboo among young people, students and also tech-savvy persons. Also old age people tend to move away with this technology as they find it difficult and the process involves many steps. Hence, due to the involved complexity in the process, we are going to ease the difficulty and involve minimum steps required by a user in carrying out a transaction. More people will try and connect with this new innovation as it makes a daily life of a user more easy.

### 1.1 METHODOLOGY

We just need to scan the user's debit/credit card. All the credentials will be auto filled. The user just need to verify the transaction using an OTP. The transaction is either done or failed.

#### a) Scanning the debit/credit card:

A user must have a valid credit/debit card for scanning and for successfully carrying out the transaction. The credit/debit card must not be black-listed or expired.

#### b) Verifying by OTP:

In certain countries a 2-step verification is required. The user if needed must enter the 4 or 6 digit password provided through registered phone number. It won't be a trouble as the digit is very small and simple.

### 1.2 MODELING AND ANALYSIS

The user is the key element here. The entire process revolves around the user. The user must scan the card, enter the 2-step authentication password. Once its done, the transaction is successful. The lengthy and complex process of credential entry and the never ending processing window wait time is eliminated by this method and hence use of A.I is also introduced.

### 2. Cons of existing system:

- 1) Manually entering details of transaction.
- 2) High chances of errors.
- 3) Technical soundness is required for a transaction to be done.
- 4) Lack of AI technology in use..

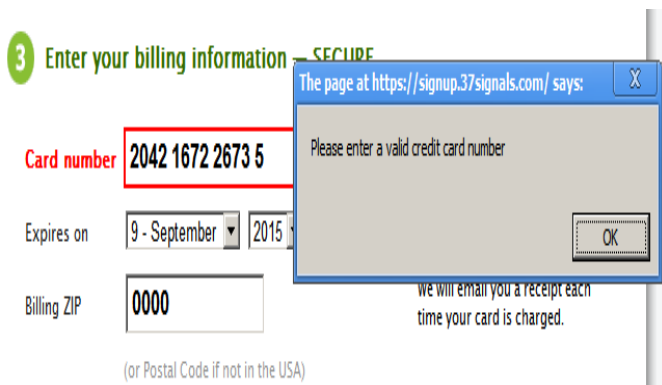


Fig -1: Figure



### 1.3 Current Market Survey:

#### 1. Paytm:

Strategy structure which was offered by our Indian Government are towards innovation like Make in India and Skill India. Paytm was one among such innovation which came as a alternative to the cash transactions. Demonetization has given Paytm an elevation in India’s money exchange economy and specially the little vendors to look for alternatives. Paytm is a successful technological innovation which has created a balance between cost and efficiency. The main aim is to study the importance given to Paytm by people in their daily routine life and success of Paytm in motivating the cashless economy. The aim is to study the flexible services offered by Paytm.

#### 2. GooglePay:

In 2018, Google revamped and rebranded its mobile and online payments services, putting them all under the Google Pay or G Pay umbrella. It is, in essence, the company’s own alternative to Apple Pay. You can use it for online payments, in app purchases, payments and peer-to-peer sending.

### 3. CONCLUSIONS

The conclusion is that we will learn how to integrate PayPal in Ionic4 app, as well as in an Ionic4 progressive web app. Testing can be performed easily using Sandbox accounts, and we can go live by simply changing sandbox client ID with live ID.

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