Project ID: SPS_PRO_1653

Application ID: SPS_CH_APL_20200004249

Team Name: Public Transport Management Team

Project Title: INTELLIGENT POST-LOCKDOWN MANAGEMENT SYSTEM FOR PUBLIC TRANSPORTATION

DESCRIPTION:-

In many bus companies, passengers board the bus at the front and pay for their ticket or show it to the driver. This is not only an operative headache but also a permanent health burden for the driver. For this reason, many public transport operators now prohibit passengers from boarding at the front and no longer sell tickets on the bus. This should become the rule even without a spreading virus and accelerate the transition to electronic and contactless ticketing/payment (e. g. smart cards, QR-code based ticketing/payment).

Users can use apps getting appointments to enter two of the busiest subway stations during peak times. In works via a QR-Code on user's phones that are valid for a half-hour time slot to enter the station.

SOLUTION:-

The solution for this type of problem is developing an intelligent app to schedule the timing of transportation, avoiding the over occupancy of public transport or bus station or railway station etc. Post lockdown, it will be risky to allow the public transportation without the proper mechanism to maintain the social distancing, especially the frequency of buses, trains and metros shall be managed properly to utilize the capacity with social distancing criteria. The transport authorities must integrate together to maintain the system properly.

Topic: Smart card based ticketing system..

Installation

1. You must install one or more payment processors. To install the PayPal payflowpro package:

```
# easy_install pytz
# easy_install python-payflowpro
```

2 .To install the authorize dotnet package and the authorize package

```
# easy_install zc.authorizedotnet
# easy_install authorize
```

3. Need to install a patched version of zc.ssl. Download the zc.ssl source package

```
# http://pypi.python.org/pypi/zc.ssl/
# tar zxvf zc.ssl-1.1.tar.gz
# cd zc.ssl-1.1
```

4. And install the patched module

```
# python setup.py install
```

//Code

```
import OnlinePayment


auth= { 'login': 'YOUR LOGIN HERE',
        'key':   'YOUR KEY HERE' }

op = OnlinePayment('authnet', test_mode=True, auth=auth)


auth= { 'username': 'YOUR USERNAME HERE',
        'password': 'YOUR PASSWORD HERE',
        'vendor':   'YOUR VENDOR HERE',
```

```
        'product':  'YOUR PRODUCT HERE' }

op = OnlinePayment('paypal', test_mode=True, auth=auth)

//For charge a card
try:
   result = op.sale(first_name = 'Aman',
                    last_name  = 'Pal',
                    address    = 'C-10  Ln.',
                    city       = 'Las vegas',
                    state      = 'USA',
                    zip        = '10001',
                    amount     = '2.00',
                    card_num   = '4087600600227',
                    exp_date   = '0589',
                    card_code  = '9876')

except conn.TransactionDeclined:

except conn.CardExpired:

except conn.ProcessorException
success  = result.success
code     = result.code
message  = result.message
trans_id = result.trans_id
orig = result.orig
```

OUTPUT SNAPSHOTS;-

```
Please enter number of the payment option(1, 2, or 3): 1


surcharge string test:  0.32
delivery string test:  0.00
total 11.76

================================================
     Lono's Coffee Hut Order Information
================================================

Roast:                  Jonestown Brew
Quanity:                1.00 .lbs
Payment Method:         paypal
payment surcharge:      $0.32 (Included in Subtotal)
shipping option:        Standard(FREE SHIPPING)
------------------------------------------------

Sub Total:              $10.81
Delivery Fee:           $0.00
Tax(0.09%):             $0.94
-----------------------------
Total:                  $11.76
```

REFERENCES

https://stories.mlh.io/adding-payments-functionality-to-your-python-app-in-10-minutes-using-the-authorize-net-api-99f5e3e403ab

https://github.com/AuthorizeNet/sample-code-python/blob/master/PaymentTransactions/charge-credit-card.py

https://www.freeprojectz.com/python-django-project/payment-management-system