**ShipSpot Web-tool**

**Requirements Document v1.3**

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# Introduction

The purpose of this web-tool is to manage our stores and their respective customers. In a nutshell, the tool fetches rates from all the shipping carriers and displays the output on the screen. The user selects one of the carriers from the displayed list and creates a shipping label that ultimately gets attached to the package being shipped. The tool maintains a history of all the shipments generated through the system along with all the details of the shipment.

# Views

The tool makes a number of different services/webpages available based on the type of user who has logged in. There are three kinds of users that will be using this tool: admin, star-user and client user. For the remaining portion of this document, star-users will be referred to as star-users and client-users will be referred to as users.

* 1. Admin View (Single Admin)
  2. Star User View (Can have multiple Star Users)
  3. User View (Each StarUser can have multiple users)

# Platform Requirements

Application needs to be run on all mobile platforms as well as desktop stations with Google Chrome browser and Apple Safari.

# Web Pages

## Menu Bar [All Views]

Horizontal at the top of the screen with a link to all the following webpages.

## Home [All Views]

Login Form to be displayed

## User Home [All Views]

1. User ID to be displayed
2. Shipments made from the users account can be tracked with their latest status showing in one line
   1. More information on each of the shipment needs to be fetched upon a click

## Track & Trace [All Views EXC. Admin]

Automated tracking for shipments made through the shipment. This will be applicable to shipments made outside the system with a simple dialogue box to add a shipment to currently tracking. Clicking on each shipment will open a dialogue box with details of the shipment.

1. Add shipment tracking dialog
   * Select Carrier
   * Enter Tracking Number
2. Ability to remove the shipments from active tracking status.

## Get Rate [All Views EXC. Admin]

### Form

1. Domestic/International Selection
2. Custom Packaging or Standard Envelop
3. From PostalCode
4. To PostalCode
5. Weight
6. Dimensions

### Carrier Rates

Posted price point checking queries for all the carriers mentioned in the "Carriers section" and displays the results.

#### First Column

First column is the kind of service that is available with the carrier. Each carrier needs to have a logo on the row and the same color scheme of the carrier. Additionally, each carrier needs to have the delivery date of the package appended to it.

#### Rate Columns

Each carrier will have two accounts associated to them that are defined as under:

Account1 = Generic posted rates   > Associated with a carrier e.g FedEx (Generic account for all star-users/users)  
Account2 = Only returns Discounted Rates  (Account2 is always unique for each star-user)

There should be two rate columns that need to show up for all users including star users as well as the users.

1. <StarUser>

Posted Rate: Account1 = $100

Discounted Rate: Account2 = $86

2.<Users>

Posted Rate: Account1 (admin account) = $100

Discount Rate: Account1\*(1-discount%) = $90

Discount rate calculation will change if the user is configured to have privileged user. If the user is configured to be privileged by the star owner then the discount rate will be calculated as follows:

Discount Rate: StarUser-Account2\*(1+priveledge\_rate%)

Columns:

1. Service
2. Posted Rate
3. Discounted Rate - This rate is fetched for the StarUser view and calculated for the User view.

As shown below, the three columns are further sorted by the date of delivery that was received by the rating request.

|  |  |  |
| --- | --- | --- |
| Next Day | Two Day | Ground |
| |  |  |  | | --- | --- | --- | | Service | Posted | Yours | | Purolator<Delivery Date> | $78 | $60 | | |  |  |  | | --- | --- | --- | |  |  |  | |  |  |  | |  |

### Shipment Creation

User should be able to select one of the services offered in the Carrier rates page land on this page that should have the following form:

1. From
   1. Name
   2. Company Name
   3. Address
   4. Phone
2. To
   1. Name
   2. Company Name
   3. Address
   4. Phone
3. Description of Goods

### Waybill

1. Waybill from the request sent to the carrier will be displayed at this point.
2. Total that needs to be charged based on the calculation

## Star Users [Admin View Only]

1. Page enlists all the star users in the system displayed in a single line.
2. Clicking on any of the star users will open up a read only form that displays all the star user information.
   1. Name, Phone, ID, Email etc
   2. CARRIER ACCOUNT NUMBERS
   3. Discount Rates
3. Edit button needs to be clicked to change any of the information
4. Button to Create users

## Users [StarUser View Only]

1. Page enlists all the users under the star user displayed in a single line.
2. Clicking on any of the star users will open up a read only form that displays all the star user information.
   1. Name, Phone, ID, Email etc
   2. Discount Rates
3. Edit button needs to be clicked to change any of the information
4. Button to Create users

## Diagnostics [Admin View Only]

Key page for technical support group to view all features.

1. Number of star-users
2. Number of clients
3. Number of Carriers
4. Names of Carriers
5. System state (up/down)
6. Serving IPs – users logged in
7. Misc.

## Shipping History

Enlists all the shipments made from the account in a table format with one shipment in one line. Clickable item for more information retrieval.

## Carriers [Admin View Only]

Additional carriers will be added periodically apart from the ones shown below so, a highly modular approach needs to be put in place to add carriers on the fly without affecting a lot of components. If an additional carrier is added by the developer, the new carrier and associated credentials will need to show in this page. Additionally, the GetRates page needs to display the rates fetched from the newly added carrier.

* UPS
  + <http://www.ups.com/content/ca/en/resources/techsupport/integrating_apis.html>
* FedEx
  + <http://www.fedex.com/us/developer/>
* Purolator
  + <http://www.purolator.com/en/ship-track/shipping-services/purolator-eship-solutions/index.page>
* Loomis
  + https://www.loomisexpress.com/ca/wfESolutions.aspx
* TnT
  + http://www.tnt.com/express/en\_ca/site/home/shipping\_tools/shipping\_systems/expressconnect.html
* Canada Post
  + https://www.canadapost.ca/cpo/mc/business/productsservices/developers/services/gettingstarted.jsf
  + http://www.canadapost.ca/cpo/mc/business/productsservices/ecommerce/tour.jsf?&s\_kwcid=TC|1027386|canada%20post%20developer||S|b|21791724979&#3
  + https://www.canadapost.ca/cpotools/apps/drc/registered?execution=e3s1
  + http://help.ablecommerce.com/mergedProjects/ablecommerce7/configure/shipping/gateways/canadapost.htm
  + http://www.codewhirl.com/2011/10/development-with-the-canada-post-shipping-api/
* DHL
  + http://www.dhl.com/en/express/resource\_center/integrated\_shipping\_solutions.html

# API

There needs to be an API for users to integrate shipping services into their webtool. The user will need to POST a request that will return the User the rates as calculated by the discount rate formula in XML format.

# Design Document

**Critical deliverable:** Detailed and thorough design document detailing not only the design specifications but the design choices and rationale for their selection.

# Security

## Database Encryption

For later phases of the project credit card information will need to be saved, therefore, it is critical to encrypt user information table particularly passwords and credit card information.

## Login Attempts

Tool needs to block IPs that exceeds the number of login attempts.

# Keys & Definitions

## Admin

Can create/edit star users and add carriers to the star-users.

## Star User

Can create users, add carriers to the users assign discount percentages to new users.

1. starID
2. First Name
3. Last Name
4. Company Name
5. Address

## Users

1. clientID
2. First Name
3. Last Name
4. Company Name
5. Address