Avalara- AvaTax API: A summary

# Aim: Build a shopping cart that can handle taxes specific to any product, region or country.

## Main Functions of our Shopping Cart that we must implement

1. Estimate Tax Amounts in the Shopping Cart (SalesOrder)
2. Dynamically recalculate taxes upon product addition or deletion
3. When order is finalized, we want to store the taxes and the order for documentation purposes. Also, it allows us to decide when we want to verify the transaction- (SalesInvoice)
   1. When the product has been ordered (preferred for small orders)
   2. When the customer has been verified by an employee (preferred for big orders)
4. Refunding an order
5. Handling the shipping charges if applicable to a particular region
6. Handling product codes to ensure that the organization can document the order perfectly.

## Features of the API

* **Estimating**
  + **Input:** We provide the details about the region, country and the products along with shipping details in the form of JSON.
  + **Output:** The API returns us an array of JSON objects where each JSON object represents a form of tax applied on the bill/product. Every tax has a source and the percentage applied which makes it easier to show the breakdown to the user.
* **Updating the taxes**
  + As the user adds and deletes products from the shopping cart, the API sends the updated tax results with close to real time latency so that the User experience is very smooth.
  + If the order is not finalized, it will stay as a SalesOrder and can be displayed anytime for the user to see.
* **Finalizing the order**
  + When the user finalizes the order, it creates a SalesInvoice with the final tax list which is also updated in the company roster.
  + The company can decide if the order is confirmed or anything like the customer identity needs to be checked.
* **Refunding the order**
  + A RefundTransaction API is present in AvaTax which handles any refunds that need to be made.
  + It just creates an invoice with payments made in negative to display that the money must be deducted from the account of the company.
  + It can make custom refunds as well handling partial or even percent refund based on the discretion and terms of the company.
* **Taxing shipping and handling**
  + There are some shipping and product handling charges which are specific to some regions or items. AvaTax keeps track of that and updates that in the cart to ensure the company is protected during audits.
  + The taxes are updated automatically by the content team of the API and they monitor the rules and regulations of countries all around the world.
* **Handling Product Codes**
  + They are able to keep track of all products and tax regulations using product codes to monitor and dynamically update all of the taxes.