



Functional Specifications Document

This document outlines the functional requirements for the 'Request a Quote' and 'Track a Shipment' functionalities for a digital Freight Forwarder.

12.11.2020

Overview

This document puts together a list of requirements for building a functionality that enables users to visit Movengo's website and to 'Create a Shipment' or 'Track a Shipment' using their tracking number.

Both commercial and non-commercial users can create a shipment, in the former case the information will be sent to the Utrade database (user will be redirected to their website), whereas in the latter the information will be submitted and the user will be given a shipping label and an invoice.

Moreover, if a user wants to order and ship an Amazon, Ebay or another online store's product through Movengo, they can choose to do so and provide the product link within the mentioned input field.

Finally, the user will have the option to pay through credit card, debit card, or to enter a coupon of a predefined amount. Once the payment is made, an email notification

User Journey

The user experience can be broken down into two distinct flows, namely the option to 'Create a Shipment' and to 'Track a Shipment' - to further break it down within the former option the user will be expected to go through the following steps:

1. **Basic Information** - this is the initial information taken from the user to define their journey in the subsequent steps. For example, name, email, company, commercial or non-commercial, online store purchase or shipment, etc.
2. **Shipment Information**
 - a. **Online Store Purchase** - in the case of an online purchase, the product link from the desired online store will be captured.
 - b. **Cargo Information** - in the case of a shipment, a number of fields - based on commercial or non-commercial, will be captured.
3. **Payment** - the user will then have the option to pay through their card or coupon.

Once a user provides the above mentioned set of information in the 'Create a Shipment' option, they will submit their form and receive a unique identifier in return (this will be the Waybill Number). Moreover, they will be emailed their invoice along with a shipping label in case they are a non-commercial customer looking to move cargo.

They can then use this tracking number in the 'Track a Shipment' option to understand the status against their shipment.

A high level process flow diagram, shown in Figure 1, summarises how the user will interact with these two key options on the freight forwarder's website.

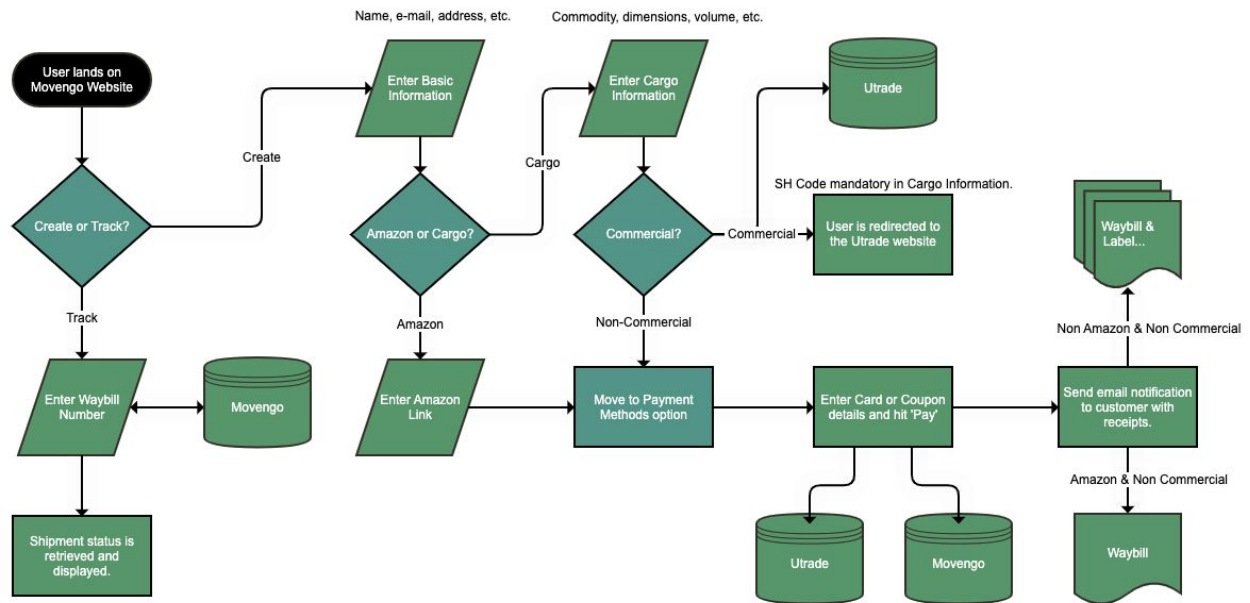


Figure 1

Create a Shipment - Specifications

This section summarises the specifications for the 'Create a Shipment' feature. It's broken down into the three sections: Basic Information, Shipment Information, and Payment.

Basic Information

The following table, Table 1, summarises the field level specifications for the Basic Information section.

Name	Type	Requirement	Validation	Comments
Name	Text	Mandatory	None	
Mobile Number	Text	Mandatory	None	
Mobile Number Code	Drop Down	Mandatory	Use list of international mobile number codes	
Email	Text	Mandatory	Check to ensure valid email format. For example name@example.com - both '@'	

			and '.' need to be checked.	
Type of shipment	Radio Button	Mandatory	Options: 1. Online Purchase 2. Cargo Shipment	
Type of Cargo	Radio Button	Mandatory	This field pops up if 'Cargo Shipment' is selected in 'Type of Shipment'. Options: 1. Commercial 2. Non-Commercial	

Table 1

Shipment Information

Once the user has provided their basic information, they would move onto the next section where they will provide the shipment information.

Online Purchase

If the user chooses 'Online Purchase' in the Type of Shipment field, the fields in Table 2 will be presented to them.

Name	Type	Requirement	Validations	Comments
Link	Text	Mandatory		
Destination	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Address	Text	Mandatory		

Table 2

Non-Commercial Customers - Cargo

If the user chooses 'Cargo Shipment' in the Type of Shipment field, and selects 'Non-Commercial' in the Type of Cargo field, Table 3 summarizes the fields presented to them.

Name	Type	Requirement	Validations	Comments
Origin	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Destination	Drop Down	Mandatory	List of all cities in the format "City, Country"	

Origin Address	Text	Mandatory		
Destination Address	Text	Mandatory		
Commodity	Text	Mandatory		
Dimensions - L	Float	Mandatory		
Dimensions - H	Float	Mandatory		
Dimensions - W	Float	Mandatory		
Dimensions Unit	Drop Down	Mandatory	List of units: 1. m 2. Ft 3. in	
Weight	Float	Mandatory		
Weight Unit	Drop Down	Mandatory	List of units: 1. Ton 2. Kg 3. lb	

Table 3

Commercial Customers - Cargo

Table 4 summarizes the field level information for the Shipment Information section if the customer choose 'Commercial' in their 'Type of Cargo'

Name	Type	Requirement	List of Values	Comments
Mode	Drop Down	Mandatory	1. Sea 2. Air 3. Land	
Type	Drop Down	Mandatory	If 'Sea' is selected in Mode, display: 1. FCL (Full Container Load) 2. LCL (Less than Container Load) If 'Air' is selected in Mode, disable this field. If 'Land' is selected in Mode,	

			display: 1. FTL (Full Truckload) 2. LTL (Less than Load)	
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Table 4

Quote Information

In the case of a Commercial customer, based on their Transportation Mode, a different set of fields will be presented to them to fill in the Quote Information section. Each of those scenarios is covered in the following sections.

Mode - Sea & Type - FCL

Table 5 summarizes the field level information for the Quote Information section if 'Sea' is selected as the Transportation Mode and 'FCL' is selected as the Type.

Name	Type	Requirement	List of Values	Validations
Origin	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Destination	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Origin Port	Drop Down	Mandatory	List of all ports in selected Origin	
Destination Port	Drop Down	Mandatory	List of all ports in selected Destination	
Commodity	Text	Mandatory		
Incoterms	Drop Down	Mandatory	Refer to www.trade.gov/know-your-incoterms	
SH Code	Text	Mandatory		
Container Type	Drop Down	Mandatory	List of available container types: 1. Dry 40' 2. Flat Rack 40' 3. Dry 20' 4. High Cube 5. Reefer 20' 6. Reefer 40' 7. Flat Rack 20' 8. Open Top 20' 9. Open Top 40' 10. Drums	

Amount	Float	Mandatory		
Volume	Float	Mandatory		
Volume Unit	Drop Down	Mandatory	List of units: 1. m^3 2. ft^3 3. in^3 4. cm^3	
Weight	Float	Mandatory		
Weight Unit	Drop Down	Mandatory	List of units: 1. Ton 2. Kg 3. lb	
Hazardous	Drop Down	Mandatory	List of values: 1. Yes 2. No	
Pickup Date	Date Picker	Mandatory		
Departure Date	Date Picker	Mandatory		Departure Date cannot be less than Pick Up Date
Special Instructions	Text	Optional		

Table 5

Mode - Sea & Type - LCL

Table 6 summarizes the field level information for the Quote Information section if 'Sea' is selected as the Transportation Mode and 'LCL' is selected as the Type.

Name	Type	Requirement	List of Values	Validations
Origin	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Destination	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Origin Port	Drop Down	Mandatory	List of all ports in selected Origin	
Destination Port	Drop Down	Mandatory	List of all ports in selected Destination	

Commodity	Text	Mandatory		
Incoterms	Drop Down	Mandatory	Refer to www.trade.gov/know-your-incoterms	
SH Code	Text	Mandatory		
Package Type	Drop Down	Mandatory	List of available package types: 1. Pallets 2. Boxes 3. Barrels 4. Drums 5. Sacks	
Amount	Float	Mandatory		
Dimensions - L	Float	Mandatory		
Dimensions - H	Float	Mandatory		
Dimensions - W	Float	Mandatory		
Dimensions Unit	Drop Down	Mandatory	List of units: 4. m 5. Ft 6. in	
Weight	Float	Mandatory		
Weight Unit	Drop Down	Mandatory	List of units: 4. Ton 5. Kg 6. lb	
Hazardous	Drop Down	Mandatory	List of values: 1. Yes 2. No	
Pickup Date	Date Picker	Mandatory		
Departure Date	Date Picker	Mandatory		Departure Date cannot be less than Pick Up Date
Special Instructions	Text	Optional		

Table 6

Mode - Air

Table 7 summarizes the field level information for the Quote Information section if 'Air' is selected as the Transportation Mode.

Name	Type	Requirement	List of Values	Validations
Origin	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Destination	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Origin Airport	Drop Down	Mandatory	List of all airports in selected Origin	
Destination Airport	Drop Down	Mandatory	List of all airports in selected Destination	
Commodity	Text	Mandatory		
Incoterms	Drop Down	Mandatory	Refer to www.trade.gov/know-your-incoterms	
SH Code	Text	Mandatory		
Package Type	Drop Down	Mandatory	List of available package types: 1. Pallets 2. Boxes 3. Barrels 4. Drums 5. Sacks	
Amount	Float	Mandatory		
Dimensions - L	Float	Mandatory		
Dimensions - H	Float	Mandatory		
Dimensions - W	Float	Mandatory		
Dimensions Unit	Drop Down	Mandatory	List of units: 1. m 2. Ft 3. in	
Weight	Float	Mandatory		
Weight Unit	Drop Down	Mandatory	List of units: 1. Ton 2. Kg 3. lb	

Hazardous	Drop Down	Mandatory	List of values: 1. Yes 2. No	
Refrigerated	Checkbox	Mandatory		By default, unchecked.
Temperature	Float	Mandatory		If 'Refrigerated' checkbox is selected
Temperature Unit	Drop Down	Mandatory	List of Values 1. Celcius 2. Fahrenheit	If 'Refrigerated' checkbox is selected
Pickup Date	Date Picker	Mandatory		
Departure Date	Date Picker	Mandatory		Departure Date cannot be less than Pick Up Date
Special Instructions	Text	Optional		

Table 7

Mode - Land & Type - FTL

Table 8 summarizes the field level information for the Quote Information section if 'Land' is selected as the Transportation Mode and 'FTL' is selected as the Type.

Name	Type	Requirement	List of Values	Validations
Origin	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Destination	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Commodity	Text	Mandatory		
Incoterms	Drop Down	Mandatory	Refer to www.trade.gov/know-your-incoterms	
SH Code	Text	Mandatory		
Container Type	Drop Down	Mandatory	List of available container types: 1. Dry 40' 2. Flat Rack 40'	

			3. Dry 20' 4. High Cube 5. Reefer 20' 6. Reefer 40' 7. Flat Rack 20' 8. Open Top 20' 9. Open Top 40' 10. Drums	
Amount	Float	Mandatory		
Volume	Float	Mandatory		
Volume Unit	Drop Down	Mandatory	List of units: 1. m^3 2. ft^3 3. in^3 4. cm^3	
Weight	Float	Mandatory		
Weight Unit	Drop Down	Mandatory	List of units: 1. Ton 2. Kg 3. lb	
Hazardous	Drop Down	Mandatory	List of values: 1. Yes 2. No	
Pickup Date	Date Picker	Mandatory		
Departure Date	Date Picker	Mandatory		Departure Date cannot be less than Pick Up Date
Special Instructions	Text	Optional		

Table 8

Mode - Land & Type - LTL

Table 9 summarizes the field level information for the Quote Information section if 'Land' is selected as the Transportation Mode and 'LTL' is selected as the Type.

Name	Type	Requirement	List of Values	Validations
Origin	Drop Down	Mandatory	List of all cities in the format "City, Country"	

Destination	Drop Down	Mandatory	List of all cities in the format "City, Country"	
Commodity	Text	Mandatory		
Incoterms	Drop Down	Mandatory	Refer to www.trade.gov/know-your-incoterms	
SH Code	Text	Mandatory		
Package Type	Drop Down	Mandatory	List of available package types: 6. Pallets 7. Boxes 8. Barrels 9. Drums 10. Sacks	
Amount	Float	Mandatory		
Dimensions - L	Float	Mandatory		
Dimensions - H	Float	Mandatory		
Dimensions - W	Float	Mandatory		
Dimensions Unit	Drop Down	Mandatory	List of units: 7. m 8. Ft 9. in	
Weight	Float	Mandatory		
Weight Unit	Drop Down	Mandatory	List of units: 7. Ton 8. Kg 9. lb	
Hazardous	Drop Down	Mandatory	List of values: 3. Yes 4. No	
Pickup Date	Date Picker	Mandatory		
Departure Date	Date Picker	Mandatory		Departure Date cannot be less than Pick Up Date
Special Instructions	Text	Optional		

Table 9

Additional Features

Tabular Display

For each of the Tables defined above, the fields that are colored *sea green* are to be represented in a tabular manner. At the bottom of the last row of the table (by default, one row) there would be an option to 'Add Item', upon clicking this another row would be added to the table **with the same set of fields colored sea green.**

In addition, the follow two metrics will be calculated and displayed at the bottom of the table:

1. **Total Volume** - the sum of the volume of containers or packages of all the rows. This would be displayed in the selected unit.
2. **Total Weight** - the sum of the weight of containers or packages of all rows. This would be displayed in the selected unit.

Note - only one type of unit can be selected for volume or weight for different cargo items. It has to be the same through all the rows in the table.

Inland Transportation

If it seems feasible, the Freight Forwarder can add the option of 'Inland Transportation' in the Quote Information section.

This would be a question that says 'Do you want Inland Transportation' with the option of either 'Yes' or 'No' as radio buttons.

If they choose 'Yes', then the following fields will be available to them:

Name	Type	Requirement	Conditions
Origin	Radiobutton	Optional	By default, if 'Yes' is selected to the above mentioned question then 'Origin' will be ticked.
Destination	Radiobutton	Optional	
Both	Radiobutton	Optional	
Origin Pickup Address	Text	Mandatory	If 'Origin' or 'Both' are selected, display this field.
Origin Delivery Address	Text	Mandatory	If 'Origin' or 'Both' are selected, display this field.
Destination Pickup Address	Text	Mandatory	If 'Destination' or 'Both' are selected, display this field.

Destination Delivery Address	Text	Mandatory	If 'Destination' or 'Both' are selected, display this field.
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Table 10

Payment

Once all the basic and shipment information is captured, the user will be directed to the payments section where they can either enter their credit card or debit card information, or enter a coupon which represents a prepaid amount.

Note that this section will only be visible to non-commercial users who are shipping a cargo or making an online purchase.

Table 11 summarizes the required fields:

Name	Type	Requirement	Validations
Coupon Code	Text	Optional	If the Coupon Code is applied, it will be validated and the page will be refreshed automatically to update the cart.
Card Number	Integer	Mandatory	It must be 16-digits long.
Expiry Date	Date Picker	Mandatory	
CVC	Integer	Mandatory	It must be 3-digit long.

Table 11

Create a Shipment - Form Submission

Non Commercial

Once the user has provided all their information, they will hit the 'Submit' button to submit their shipment request.

Upon submission of the form, the user will be provided with a 14-digit unique identifier known as the tracking number (or Waybill number), the proposed format is as follows.

13 11 2020 000 001

The first two digits are the day, for example Friday, the 13th.

The third and fourth digits represent the month, for example '11' for November.

The next four digits represent the year, for example, 2020.

And finally, the last six digits represent a counter value for each submission.

This tracking number will be provided to the user, and is recommended to be sent to the user's email address as well. Using this, they would be able to track the status of their shipment through the 'Track a Shipment' option.

Commercial

As soon as the commercial users submit their form, they will be redirected to the Utrade website and their information will be pushed to the Utrade database.

Track A Shipment - Specifications

The same way that a user would be able to access the 'Request a Quote' feature, they would also have the option to access the 'Track A Shipment' feature. This allows existing users, who have bookings in place with the Freight Forwarder, to input their tracking number and get the status of their shipment.

Name	Type	Requirement	Validations
Waybill Number (Tracking Number)	Integer	Mandatory	It must be a 14-digit tracking number.

Table 12

Upon entering the tracking number, they will hit the 'Submit' button and will receive a list of possible statuses along with the stage at which their shipment is currently on.

Note - these are defined within the Back Office processes of each Freight Forwarder and it is recommended for those statuses to be used here.

Appendix

Screenshots - Bluorbit

The screenshots below are for reference to other existing applications that offer similar features.

From (City)

To (City)

From (Country)

To (Country)

Select Shipment Type

Weight

KG

Custom Box Dimension

Length

CM

Width

CM

Height

CM

+

☐ I'm shipping to a residence

Show Rates

From (City)

To (City)

From (Country)

To (Country)

Document

Weight

1

KG

Custom Box Dimension

Length

1

CM

Width

1

CM

Height

1

CM

+

☐ I'm shipping to a residence

Show Rates

Rate And Time Quote For Shipments Sent Today.





DELIVERED BY





Express Courier

Rates shown here may differ from final shipment charges.

Click Here To Book

PKR 4825.16

First Name and Last Name *		First Name and Last Name *	
Company	Email Address *	Company	Email Address *
Address Line 1 * (Street address)		Address Line 1 * (Street address)	
Address Line 2 (Apartment, suite , unit, building, floor, etc.)		Address Line 2 (Apartment, suite , unit, building, floor, etc.)	
Address Line 3		Address Line 3	
Country * Canada - CA	State Ontario	Country * United Kingdom - GB	State England
City * Toronto	Postal Code *	City * London	Postal Code *
Mobile	 +1 "Eg: (506) 234-5678"	Mobile	 +44 "Eg: 07400 123456"
Mobile	 +1 "Eg: (506) 234-5678"	Mobile	 +44 "Eg: 07400 123456"
<input type="checkbox"/> Residential Address		<input type="checkbox"/> Residential Address	
<input type="checkbox"/> Add to Favorite		<input type="checkbox"/> Add to Favorite	
<input type="checkbox"/> Save Template			

First Name and Last Name *		First Name and Last Name *	
Company	Email Address *	Company	Email Address *
Address Line 1 * (Street address)		Address Line 1 * (Street address)	
Address Line 2 (Apartment, suite , unit, building, floor, etc.)		Address Line 2 (Apartment, suite , unit, building, floor, etc.)	
Address Line 3		Address Line 3	
Country * Canada - CA	State Ontario	Country * United Kingdom - GB	State England
City * Toronto	Postal Code *	City * London	Postal Code *
Mobile	 +1 "Eg: (506) 234-5678"	Mobile	 +44 "Eg: 07400 123456"
Mobile	 +1 "Eg: (506) 234-5678"	Mobile	 +44 "Eg: 07400 123456"
<input type="checkbox"/> Residential Address		<input type="checkbox"/> Residential Address	
<input type="checkbox"/> Add to Favorite		<input type="checkbox"/> Add to Favorite	
<input type="checkbox"/> Save Template			

Shipment Details

Select Service Type

☒ Express Courier

Select Shipment Type

☒ Document ☐ Parcel

Weight	Box Dimensions	Length	Breadth	Height	Volumetric Weight
1.00 KG	Custom Box Dimen	1 CM	1 CM	1 CM	0.00 KG
					+
Total Weight					Total Vol Weight
1.00 KG					0.00 KG
Special Instructions					
<input type="text"/>					

Previous

Next

Book New Shipment

1 Create Shipment

2 Confirm Shipment

3 Payments

Shipment Details

Shipment Type:	Document	Services Type:	Express Courier
No of Pieces:	1	Weight(KG):	1.00
Pickup Address:	JOhn Doe	Delivery Address:	Witk H
	Testing 123, , Toronto Ontario - A9A 9A9 Canada		323230 Testing, , London England - AA9A 9AA United Kingdom
Volumetric Weight(KG):	0.00		

Choose your product :

DELIVERED BY
Express Courier



PKR 4825.16

Would you like to :

Schedule A Pickup


Pick up

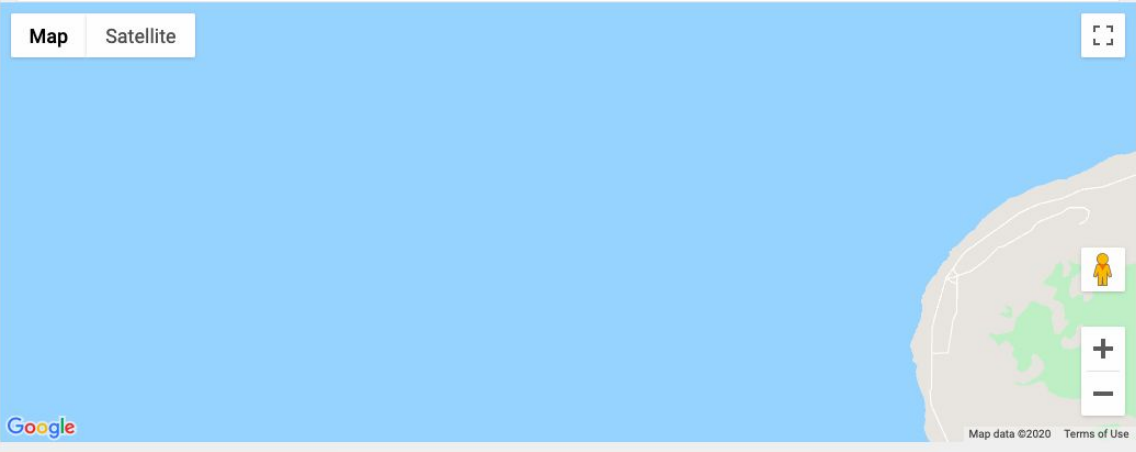
Select Your Pick Up Date & Time

18-11-2020  Select time 

Search Location

Testing 123, , Canada, Ontario, Toronto,A9A 9A9

Map Satellite 



Google

Map data ©2020 Terms of Use

Book New Shipment

1 Create Shipment
2 Confirm Shipment
3 Payments

Estimated Quote / Price

SHIPMENT TYPE	SERVICES TYPE	PICKUP ADDRESS	DELIVERY ADDRESS	TOTAL WEIGHT (KG)	TOTAL VOLUMETRIC WEIGHT (KG)	TOTAL QUOTE (PKR)	
Bluorbit Express End of Day	Document	John Doe Testing 123, , Toronto Ontario - A9A 9A9 Canada	Witk H 323230 Testing, , London England - AA9A 9AA United Kingdom	1.00 KG	0.00 KG	SUBTOTAL	PKR 4,270.05
						SST	PKR 555.11
						TOTAL	PKR 4,825.16

Pick up Details

PICKUP DATE	TIME SLOT	PICK UP LOCATION
18-11-2020	12 PM - 2 PM	Testing 123, , Canada, Ontario, Toronto,A9A 9A9

Shipment does not contain any Prohibited Items or Dangerous Goods

Yes

No

I agree to the Terms and Conditions.

Yes

No

Payment Options

Cash On Pickup

Credit Card

* Please select credit card Option

Select Credit Card Option

