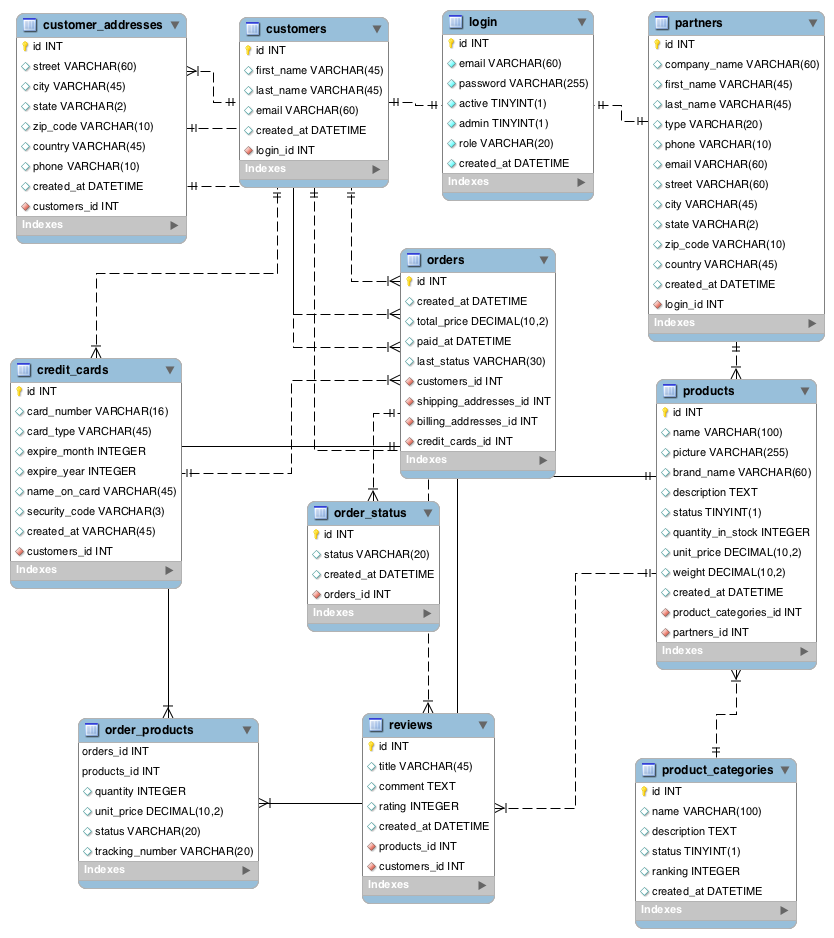
**Introduction**

This guide walks you through the development of our project from inception to current stage.

**Architecture**

* First, we created the database design. This gave us a solid and strong understanding of how we wanted our project to operate. Next we created the business domain and data access layers. In doing this, we used Hibernate framework for data access layer and Spring framework for business domain layer. Our database management system is MySQL.
* We have 13 common objects that are as follows:
  + **Login:** Stores login information of both customer and partnerLogin
  + **Customer:** Stores customer’s detail information
  + **CustomerAddress:** Stores addresses of customer and a customer can have multiple addresses
  + **CreditCard:** Stores credit card information of customer and a customer can have multiple credit cards
  + **Partner:** Stores partner of seller detailed information
  + **Product:** Stores detailed information of products
  + **ProductCategory:** Stores categories or tags of products
  + **Order:** Stores customer’s order information
  + **OrderProduct:** Stores detailed information of products in a specific order.
  + **OrderStatus:** Stores order’s status information
  + **Review:** Stores customer’s review for products.



* You can access our project through the following github URL:
  + [https://github.com/Byambatsog/Comp344WS.gi](https://github.com/Byambatsog/Comp344WS.git)t
* You can find the database creation scripts in following file:
  + /src/main/resources/database.sql
* Database configuration is in the following file (need to change username and password for mysql):

/src/main/webapp/WEB-INF/classes/application.properties

* Hibernate configuration is in the following file:

/src/main/webapp/WEB-INF/classes/hibernate.properties

* Domain (Model) classes are located in:
  + com.comp344.ecommerce.domain
* Data access layer classes are located in:
  + com.comp344.ecommerce.domain
* Business layer classes are located in:
  + Com.comp344.ecommerce.business

**CustomerManager** handles detailed information of customer, addresses and credit cards.

**LoginManager** handles user profiles and authentication information.

**PartnerManager** handles detailed information.

**ProductManager** handles detailed information of product and product category information

**OrderManager** handles detailed information of order, products of order, order status, and order payment.

**ReviewManager** handles detailed information of customer review.

**Authentication and Authorization**

* We have used Srping security for stateless authentication and authorization of our web system.
* When user (customer or partner) log in, our system returns authentication token.
  + eyJhbGciOiJIUzUxMiJ9.eyJqdGkiOiI1NzQ2Y2E3MC1kYjEyLTRlMmItOTcyMi00MzI4YTNkMjNlYzUiLCJzdWIiOiJkaWdpdGFsQGdtYWlsLmNvbSIsImlhdCI6MTQ4MTA2NTI4OCwiZXhwIjoxNDgxMDY4ODg4fQ.2g-zzi5lnsh7f1DlPlJWch\_oplHZEY8Crxe3DnAN6Peh3bFtHPFbuEPAyqOlP-ooV-Xe-67gd2WjCJpsUwDNAg
* For next time user can use the token in the request header instead of sending username and password to the server

**Login Resource**

URI: <http://localhost:8080/login>

Parameters: username, password

Method: POST

Response:

{

"email": "byambatsog@gmail.com",

"token": "eyJhbGciOiJIUzUxMiJ9.eyJqdGkiOiIyNzU3YjExYi01YmQ3LTQ0ZjAtYjRjNS00MTZlZGQxNmZiNzQiLCJzdWIiOiJieWFtYmF0c29nQGdtYWlsLmNvbSIsImlhdCI6MTQ4MTA3MzgyMywiZXhwIjoxNDgxMDc3NDIzfQ.7lO1c5jf3H78DWJ1uyzH4WOwLqI8-Yw20PSGdbnlyWOjNPR\_2peJu2Q-flqkeGomhtYoyGfcnsuwgesfnrPBgA",

"links": [

{

"href": "http://localhost:8080/customerservice/customers/1",

"rel": "customer",

"method": "GET",

"mediaType": ""

}

]

}

After logged in user can use the authentication token in the request header (‘X-AUTH-TOKEN’) to access authorized resources.

**Service URIs**

1. **URI:** /customerservice/customers

**Security level:** ROLE\_ADMIN

**Resource Class:** CustomerResource

**Http method:** GET

**Description:** Retrieve list of customers

**Parameters:**

* q = search terms
* orderBy = ordering column and direction
* page = page number
* pageSize = size of the page

**Request:**

/customerservice/customers?q=francis

**Response:**

{

"elements": [

{

"id": 2,

"firstName": "Francis",

"lastName": "Albert",

"email": "fran@gmail.com",

"createdAt": "2016-10-04 20:56:37"

},

{

"id": 3,

"firstName": "Albert",

"lastName": "Francis",

"email": "albert@gmail.com",

"createdAt": "2016-10-04 20:56:37"

},

{

"id": 4,

"firstName": "Ogor",

"lastName": "Francis",

"email": "ogor@gmail.com",

"createdAt": "2016-10-04 20:56:37"

}

],

"pageNumber": 1,

"pageSize": 10,

"totalNumberOfElements": 3

}

1. **URI:** /customerservice/customers/{id}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** GET

**Description:** Retrieve detailed information of a customer.

**Request:**

/customerservice/customer/1

**Response:**

{

"id": 1,

"firstName": "Byambatsog",

"lastName": "Chimed",

"email": "byambatsog@gmail.com",

"createdAt": "2016-10-04 20:56:37"

}

1. **URI:** /customerservice/customers

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** CustomerResource

**Http method:** POST

**Description:** Create a new customer (consumes and produces application/json)

**Parameters:**

{

"email": "text",

"password": "text",

"firstName": "text",

"lastName": "text"

}

**Request:**

{

"email": "john@gmail.com",

"password": "Loyola2017",

"firstName": "John",

"lastName": "Dow"

}

**Response:**

{

"id": 11,

"firstName": "John",

"lastName": "Dow",

"email": "john@gmail.com",

"createdAt": "2016-11-08 19:12:01"

}

1. **URI:** /customerservice/customers/{id}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** PUT

**Description:** Update the specified customer (consumes application/json)

**Parameters:**

{

"email": "text",

"firstName": "text",

"lastName": "text"

}

**Request:**

/customerservice/customers/11

{

"email": "johndow@gmail.com",

"firstName": "Johnson",

"lastName": "Dowson"

}

**Response:**

{

"message": "Customer updated successfully"

}

1. **URI:** /customerservice/customers/{id}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** DELETE

**Description:** Delete the specified customer

**Request:**

/customerservice/customers/11

**Response:**

{

"message": "Customer deleted successfully"

}

1. **URI:** /customerservice/customers/{id}/creditcards

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** GET

**Description:** Retrieve all credit cards of the customer.

**Request:**

/customerservice/customers/1/creditcards

**Response:**

[

{

"id": 1,

"cardNumber": "...7777",

"cardType": "Master",

"expireMonth": 8,

"expireYear": 2019,

"nameOnCard": "Byambatsog"

},

{

"id": 11,

"cardNumber": "...4749",

"cardType": "Visa",

"expireMonth": 3,

"expireYear": 2018,

"nameOnCard": "Fisher"

}

]

1. **URI:** /customerservice/customer/{id}/creditcard/{cardId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** GET

**Description:** Retrieve the specified credit card of the customer.

**Request:**

/customerservice/customer/1/creditcard/1

**Response:**

{

"id": 1,

"cardNumber": "...7777",

"cardType": "Master",

"expireMonth": 8,

"expireYear": 2019,

"nameOnCard": "Byambatsog"

}

1. **URI:** /customerservice/customer/{id}/creditcard

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** POST

**Description:** Add a credit card (consumes and produces application/json)

**Parameters:**

{

"cardNumber": "text",

"cardType": "text",

"expireMonth": "integer",

"expireYear": "integer",

"nameOnCard": "text",

"securityCode": "text"

}

**Request:**

/customerservice/customer/1/creditcard

{

"cardNumber": "2342309802340982",

"cardType": "Master",

"expireMonth": 3,

"expireYear": 2020,

"nameOnCard": "Byambatsog",

"securityCode": "342"

}

**Response:**

{

"id": 21,

"cardNumber": "...0982",

"cardType": "Master",

"expireMonth": 3,

"expireYear": 2020,

"nameOnCard": "Byambatsog"

}

1. **URI:** /customerservice/customer/{id}/creditcard/{cardId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** PUT

**Description:** Update a specified credit card of the customer (consumes application/json)

**Parameters:**

{

"cardNumber": "text",

"cardType": "text",

"expireMonth": "integer",

"expireYear": "integer",

"nameOnCard": "text",

"securityCode": "text"

}

**Request:**

/customerservice/customer/1/creditcard/21

{

"cardNumber": "2342309802348888",

"cardType": "Visa",

"expireMonth": 5,

"expireYear": 2022,

"nameOnCard": "Byambatsog",

"securityCode": "142"

}

**Response:**

{

"message": "Credit card updated successfully"

}

1. **URI:** /customerservice/customer/{id}/creditcard/{cardId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** DELETE

**Description:** Delete the specified credit card of the customer.

**Request:**

/customerservice/customer/1/creditcard/21

**Response:**

{

"message": "Credit card deleted successfully"

}

1. **URI:** /customerservice/customer/{id}/address

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** GET

**Description:** Retrieve all addresses of the customer.

**Request:**

/customerservice/customer/1/address

**Response:**

[

{

"id": 1,

"street": "1246 W Pratt blvd",

"city": "Chicago",

"state": "IL",

"zipCode": "60626",

"country": "United States",

"phone": "7734567212"

}

]

1. **URI:** /customerservice/customer/{id}/address/{addressId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** GET

**Description:** Retrieve the specified address of the customer.

**Request:**

/customerservice/customer/1/address/1

**Response:**

{

"id": 1,

"street": "1246 W Pratt blvd",

"city": "Chicago",

"state": "IL",

"zipCode": "60626",

"country": "United States",

"phone": "7734567212"

}

1. **URI:** /customerservice/customer/{id}/address

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** POST

**Description:** Add a address. (consumes and produces application/json)

**Parameters:**

{

"street": "text",

"city": "text",

"state": "text",

"zipCode": "text",

"country": "text",

"phone": "text"

}

**Request:**

/customerservice/customer/1/address

{

"street": "25 E Pearson",

"city": "Chicago",

"state": "IL",

"zipCode": "60601",

"country": "United States",

"phone": "7731988765"

}

**Response:**

{

"id": 11,

"street": "25 E Pearson",

"city": "Chicago",

"state": "IL",

"zipCode": "60601",

"country": "United States",

"phone": "7731988765"

}

1. **URI:** /customerservice/customer/{id}/address/{addressId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** PUT

**Description:** Update a specified address of the customer (consumes application/json)

**Parameters:**

{

"street": "text",

"city": "text",

"state": "text",

"zipCode": "text",

"country": "text",

"phone": "text"

}

**Request:**

/customerservice/customer/1/address/11

{

"street": "25 E Pratt blvd",

"city": "Chicago",

"state": "IL",

"zipCode": "60626",

"country": "United States",

"phone": "7767778888"

}

**Response:**

{

"message": "Address updated successfully"

}

1. **URI:** /customerservice/customer/{id}/address/{addressId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** DELETE

**Description:** Delete the specified address of the customer.

**Request:**

/customerservice/customer/1/address/11

**Response:**

{

"message": "Address deleted successfully"

}

1. **URI:** /customerservice/customers/{id}/orders

**Security level:** ROLE\_CUSTOMER

**Resource Class:** CustomerResource

**Http method:** GET

**Description:** Retrieve all orders of the customer.

**Request:**

/customerservice/customers/1/orders

**Response:**

[

{

"id": 2,

"totalPrice": 6987.83,

"createdAt": "2016-11-05 23:08:42",

"paidAt": "2016-11-05 23:08:42",

"shippingAddress": "1246 W Pratt blvd, Chicago, IL 60626, United States, 7734567212",

"billingAddress": "1246 W Pratt blvd, Chicago, IL 60626, United States, 7734567212",

"customerId": 1,

"customerFirstName": "Byambatsog",

"paymentCardNumber": "...7777",

"paymentCardType": "Master",

"lastStatus": "ORDERED",

"products": [],

"statuses": []

},

{

"id": 1,

"totalPrice": 7976.76,

"createdAt": "2016-11-01 17:53:38",

"paidAt": "2016-11-01 17:53:38",

"shippingAddress": "1246 W Pratt blvd, Chicago, IL 60626, United States, 7734567212",

"billingAddress": "1246 W Pratt blvd, Chicago, IL 60626, United States, 7734567212",

"customerId": 1,

"customerFirstName": "Byambatsog",

"paymentCardNumber": "...7777",

"paymentCardType": "Master",

"lastStatus": "SHIPPED",

"products": [],

"statuses": []

}

]

1. **URI:** /orderservice/orders/{orderId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** OrderResource

**Http method:** DELETE

**Description:** Cancel a specified order of the customer.

**Request:**

/orderservice/orders/2

**Response:**

{

"message": "Order cancelled successfully"

}

1. **URI:** /partnerservice/partners

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** PartnerResource

**Http method:** GET

**Description:** Retrieve list of partners

**Parameters:**

* q = search terms
* type = type of partner (‘COMPANY’ or ‘PERSONAL’)
* orderBy = ordering column and direction
* page = page number
* pageSize = size of the page

**Request:**

/partnerservice/partners?q=all

**Response:**

{

"elements": [

{

"id": 2,

"companyName": "All day zip",

"firstName": "Antonia",

"lastName": "Mark",

"type": "COMPANY",

"phone": "6585074949",

"email": "alldayzip@gmail.com",

"street": "6732 Madison Str",

"city": "Chicago",

"state": "IL",

"zipCode": "60615",

"country": "United States",

"createdAt": "2016-10-30 17:15:47"

},

{

"id": 10,

"companyName": "Shoes Alliance",

"firstName": "Tom",

"lastName": "Ford",

"type": "PERSONAL",

"phone": "3126758998",

"email": "shoesalliance@gmail.com",

"street": "8234 Franklin Dr",

"city": "Chicago",

"state": "IL",

"zipCode": "60634",

"country": "United States",

"createdAt": "2016-10-04 20:56:37"

}

],

"pageNumber": 1,

"pageSize": 10,

"totalNumberOfElements": 2

}

1. **URI:** /partnerservice/partners/{id}

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** GET

**Description:** Retrieve detailed information of the partner.

**Request:**

/partnerservice/partners/1

**Response:**

{

"id": 1,

"companyName": "Big Value Inc",

"firstName": "",

"lastName": "",

"type": "COMPANY",

"phone": "7735952314",

"email": "bigvalueinc@gmail.com",

"street": "1240 Loyola ave",

"city": "Chicago",

"state": "IL",

"zipCode": "60626",

"country": "United States",

"createdAt": "2016-10-24 21:11:16"

}

1. **URI:** /partnerservice/partners

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** PartnerResource

**Http method:** POST

**Description:** Create a new partner (consumes and produces application/json)

**Parameters:**

{

"email": "text",

"password": "text",

"firstName": "text",

"lastName": "text",

“companyName”: “text”

}

**Request:**

/partnerservice/partners

{

"email": "wonderstore@gmail.com",

"password": "wonderSto",

"firstName": "Nathen",

"lastName": "Joshua",

"companyName": "Wonder store"

}

**Response:**

{

"id": 11,

"companyName": "Wonder store",

"firstName": "Nathen",

"lastName": "Joshua",

"type": "COMPANY",

"phone": "",

"email": "wonderstore@gmail.com",

"street": "",

"city": "",

"state": "",

"zipCode": "",

"country": "",

"createdAt": "2016-11-08 20:00:52"

}

1. **URI:** /partnerservice/partners/{id}

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** PUT

**Description:** Update the specified partner (consumes application/json)

**Parameters:**

{

"companyName": "text",

"firstName": "text",

"lastName": "text",

"type": "enum" (‘COMPANY’ or ‘PERSONAL’),

"phone": "text",

"email": "text",

"street": "text",

"city": "text",

"state": "text",

"zipCode": "text",

"country": "text"

}

**Request:**

/partnerservice/partners/11

{

"companyName": "Wonder store",

"firstName": "Nathen1",

"lastName": "Joshua1",

"type": "COMPANY",

"phone": "8887776666",

"email": "wonderstore@gmail.com",

"street": "34 E pearson",

"city": "Chicago",

"state": "IL",

"zipCode": "60321",

"country": "United States"

}

**Response:**

{

"message": "Partner updated successfully"

}

1. **URI:** /partnerservice/partners/{id}

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** DELETE

**Description:** Delete the specified partner

**Request:**

/partnerservice/partners/11

**Response:**

{

"message": "Partner deleted successfully"

}

1. **URI:** /partnerservice/partners/{id}/products

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** GET

**Description:** Retrieve list products of the partner.

**Parameters:**

* q = search terms
* categoryId = id of the category that you want to search product in it.
* status = Boolean value (true is active, false is not active).
* orderBy = ordering column and direction
* page = page number
* pageSize = size of the page

**Request:**

/partnerservice/partners/2/products

**Response:**

{

"elements": [

{

"id": 13,

"name": "Kicker KPM Bluetooth wireless speaker",

"picture": "http://i.ebayimg.com/images/g/zkUAAOSwuAVWzihG/s-l1600.jpg",

"brandName": "Kicker",

"description": "Kicker KPM50 Bluetooth Speaker delivers elegant bass with Two 2-inch drivers are complemented by dual-balanced bass radiators for exceptional sound from a compact design thanks to the elegant aluminum cabinet. KPM50 brings durable and elegant materials that look great in any décor, with audio performance that is sure to please the most demanding listeners",

"status": true,

"quantityInStock": 249,

"unitPrice": 129.99,

"weight": 2.3,

"createdAt": "2016-11-05 20:55:36",

"categoryId": 9,

"categoryName": "Electrical Equipmets"

},

{

"id": 12,

"name": "MICRO USB - CAR CHARGER",

"picture": "http://i.ebayimg.com/images/g/k9wAAOSwaB5Xvckz/s-l500.jpg",

"brandName": "Eco Charger",

"description": "A brand-new, unused, unopened, undamaged item in its original packaging (where packaging is applicable). Packaging should be the same as what is found in a retail store, unless the item is handmade or was packaged by the manufacturer in non-retail packaging, such as an unprinted box or plastic bag",

"status": true,

"quantityInStock": 248,

"unitPrice": 13.99,

"weight": 0.3,

"createdAt": "2016-11-05 20:52:28",

"categoryId": 9,

"categoryName": "Electrical Equipmets"

},

{

"id": 11,

"name": "Apple Watch - 38mm - Stainless Steel Case",

"picture": "http://i.ebayimg.com/images/g/Qd8AAOSwneRXRG1l/s-l1600.jpg",

"brandName": "Apple",

"description": " A brand-new, unused, unopened, undamaged item in its original packaging (where packaging is applicable). Packaging should be the same as what is found in a retail store, unless the item is handmade or was packaged by the manufacturer in non-retail packaging, such as an unprinted box or plastic bag. See the seller's listing for full details.",

"status": true,

"quantityInStock": 198,

"unitPrice": 319.99,

"weight": 1.3,

"createdAt": "2016-11-05 20:50:18",

"categoryId": 9,

"categoryName": "Electrical Equipmets"

}

],

"pageNumber": 1,

"pageSize": 10,

"totalNumberOfElements": 3

}

1. **URI:** /partnerservice/products/{productId}

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** GET

**Description:** Retrieve the specified product of the partner.

**Request:**

/partnerservice/products/11

**Response:**

{

"id": 11,

"name": "Apple Watch - 38mm - Stainless Steel Case",

"picture": "http://i.ebayimg.com/images/g/Qd8AAOSwneRXRG1l/s-l1600.jpg",

"brandName": "Apple",

"description": " A brand-new, unused, unopened, undamaged item in its original packaging (where packaging is applicable). Packaging should be the same as what is found in a retail store, unless the item is handmade or was packaged by the manufacturer in non-retail packaging, such as an unprinted box or plastic bag. See the seller's listing for full details.",

"status": true,

"quantityInStock": 198,

"unitPrice": 319.99,

"weight": 1.3,

"createdAt": "2016-11-05 20:50:18",

"categoryId": 9,

"categoryName": "Electrical Equipmets"

}

1. **URI:** /partnerservice/products

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** POST

**Description:** Add a product (consumes and produces application/json)

**Parameters:**

{

"name": "text",

"picture": "text" (URL of the picture),

"brandName": "text",

"description": "text",

"status": "boolean",

"quantityInStock": "integer",

"unitPrice": "number",

"weight": "number",

"categoryId": "integer"

}

**Request:**

/partnerservice/products

{

"name":"Lenovo 12.5 inch Intel Core i5 3.0GHz",

"picture":"http://i.ebayimg.com/images/g/HJkAAOSwmLlYB6Jp/s-l1600.jpg",

"brandName":"Lenovo",

"description":"",

"status":"true",

"quantityInStock":"240",

"unitPrice":"1200.13",

"weight":"5.3",

"categoryId":"4"

}

**Response:**

{

"id": 22,

"name": "Lenovo 12.5 inch Intel Core i5 3.0GHz",

"picture": "http://i.ebayimg.com/images/g/HJkAAOSwmLlYB6Jp/s-l1600.jpg",

"brandName": "Lenovo",

"description": "",

"status": true,

"quantityInStock": 240,

"unitPrice": 1200.13,

"weight": 5.3,

"createdAt": "2016-11-08 20:09:31",

"categoryId": 4,

"categoryName": "Computers & Tablets"

}

1. **URI:** /partnerservice/products/{productId}

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** PUT

**Description:** Update the product of the partner (consumes application/json)

**Parameters:**

{

"name": "text",

"picture": "text" (URL of the picture),

"brandName": "text",

"description": "text",

"status": "boolean",

"quantityInStock": "integer",

"unitPrice": "number",

"weight": "number",

"categoryId": "integer"

}

**Request:**

/partnerservice/products/22

{

"name":"Lenovo 13.5 inch Intel Core i5 3.0GHz",

"picture":"http://i.ebayimg.com/images/g/HJkAAOSwmLlYB6Jp/s-l1600.jpg",

"brandName":"Lenovo1",

"description":"description",

"status":"true",

"quantityInStock":"340",

"unitPrice":"1222.13",

"weight":"5.3",

"categoryId":"4"

}

**Response:**

{

"message": "Product updated successfully"

}

1. **URI:** /partnerservice/products/{productId}

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** DELETE

**Description:** Delete the specified product of the partner.

**Request:**

/partnerservice/products/22

**Response:**

{

"message": "Product deleted successfully"

}

1. **URI:** /partnerservice/partners/{id}/orders

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** GET

**Description:** Retrieve list orders of the partner.

**Parameters:**

* status = status of order product (ORDERED, FULFILLED, CANCELLED, SHIPPED, DELIVERED )

**Request:**

/partnerservice/partners/5/orders?status=FULFILLED

**Response:**

[

{

"id": 5,

"totalPrice": 5791.83,

"createdAt": "2016-11-05 23:10:42",

"paidAt": "2016-11-05 23:10:42",

"shippingAddress": "1871 S King dr, Phoenix, AZ 87390, United States, 6268709809",

"billingAddress": "1871 S King dr, Phoenix, AZ 87390, United States, 6268709809",

"customerId": 4,

"customerFirstName": "Ogor",

"paymentCardNumber": "...5763",

"paymentCardType": "Master",

"lastStatus": "FULFILLED",

"products": [

{

"productId": 9,

"productName": "Lenovo ThinkPad P50 20EN0013US 15.6 inch",

"productPicture": "http://i.ebayimg.com/images/g/oC8AAOSwKtlWh~Zq/s-l1600.jpg",

"unitPrice": 1219.95,

"quantity": 3,

"status": "FULFILLED"

},

{

"productId": 8,

"productName": "Apple MacBook Pro MF839LL/A 13.3-Inch",

"productPicture": "http://i.ebayimg.com/images/g/5iQAAOSwLF1YBko3/s-l1600.jpg",

"unitPrice": 1065.99,

"quantity": 2,

"status": "FULFILLED"

}

],

"statuses": []

}

]

1. **URI:** /partnerservice/orders/{orderId}/products/{product}

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** POST

**Description:** Update the product’s status int the order to ‘FULFILLED’.

**Parameters:**

* trackingNumber = tracking number of the product

**Request:**

/partnerservice/partner/5/order/6/product/10?trackingNumber='638287193'

**Response:**

{

"message": "Order product is fulfilled successfully"

}

1. **URI:** /partnerservice/orders/{orderId}/products/{product}

**Security level:** ROLE\_PARTNER

**Resource Class:** PartnerResource

**Http method:** PUT

**Description:** Update the product’s status in the order to ‘SHIPPED’ or ‘DELIVERED’.

**Parameters:**

* status = ‘SHIPPED’ or ‘DELIVERED’

**Request:**

/partnerservice/orders/6/products/10?status=SHIPPED

**Response:**

{

"message": "Order product's status is changed successfully to 'SHIPPED'"

}

**Request:**

/partnerservice/orders/6/products/10?status=DELIVERED

**Response:**

{

"message": "Order product's status is changed successfully to DELIVERED"

}

1. **URI:** /productservice/products

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** ProductResource

**Http method:** GET

**Description:** search products

**Parameters:**

* q = search terms
* categoryId = category of product
* partnerId = partner of product
* orderBy = ordering column and direction
* page = page number
* pageSize = size of the page

**Request:**

/productservice/products?q=apple

**Response:**

{

"elements": [

{

"id": 11,

"name": "Apple Watch - 38mm - Stainless Steel Case",

"picture": "http://i.ebayimg.com/images/g/Qd8AAOSwneRXRG1l/s-l1600.jpg",

"unitPrice": 319.99,

"partnerId": 2,

"partnerName": "All day zip"

},

{

"id": 8,

"name": "Apple MacBook Pro MF839LL/A 13.3-Inch",

"picture": "http://i.ebayimg.com/images/g/5iQAAOSwLF1YBko3/s-l1600.jpg",

"unitPrice": 1065.99,

"partnerId": 5,

"partnerName": "Digital Systems"

},

{

"id": 4,

"name": "Apple iPad Mini 4 7.9\" Retina Display",

"picture": "http://i.ebayimg.com/images/g/QtgAAOSw4GVYG0pU/s-l1600.jpg",

"unitPrice": 299.99,

"partnerId": 5,

"partnerName": "Digital Systems"

},

{

"id": 2,

"name": "Apple iPhone 7 Plus (Latest Model)",

"picture": "http://i.ebayimg.com/images/g/yZ8AAOSw4shX-HvJ/s-l500.jpg",

"unitPrice": 990,

"partnerId": 4,

"partnerName": "Ant online"

}

],

"pageNumber": 1,

"pageSize": 10,

"totalNumberOfElements": 4

}

1. **URI:** /productservice/products/{id}

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** ProductResource

**Http method:** GET

**Description:** Retrieve detailed information of the product.

**Request:**

/productservice/products/2

**Response:**

{

"id": 2,

"name": "Apple iPhone 7 Plus (Latest Model)",

"picture": "http://i.ebayimg.com/images/g/yZ8AAOSw4shX-HvJ/s-l500.jpg",

"brandName": "Apple",

"description": "GPS, Internet Browser, Music Player, Near Field Communication",

"unitPrice": 990,

"weight": 2.4,

"categoryId": 3,

"categoryName": "Cell Phones & Accessories",

"partnerId": 4,

"partnerName": "Ant online"

}

1. **URI:** /productservice/products/{id}/reviews

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** ProductResource

**Http method:** GET

**Description:** Retrieve all reviews of the product.

**Request:**

/productservice/products/2/reviews

**Response:**

[

{

"id": 17,

"title": "Beautiful!!!!",

"comment": "Really fast, GooD touch in you hands, GooD cuality value!!",

"rating": 5,

"customerName": "Chris"

},

{

"id": 18,

"title": "Too much information",

"comment": "I was interested in your phone as it has many good features. Until I read the agreement. NO ONE has the right to look into my private information. Especially my bank account.",

"rating": 1,

"customerName": "Perry"

},

{

"id": 19,

"title": "nice",

"comment": "good smart phone",

"rating": 4,

"customerName": "Sean"

},

{

"id": 20,

"title": "Good quality",

"comment": "A brand-new, unused, unopened, undamaged item in",

"rating": 5,

"customerName": "Tom"

}

]

1. **URI:** /productservice/reviews/{reviewId}

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** ProductResource

**Http method:** GET

**Description:** Retrieve the specified review of the product.

**Request:**

/productservice/product/2/review/20

**Response:**

{

"id": 20,

"title": "Good quality",

"comment": "A brand-new, unused, unopened, undamaged item in",

"rating": 5,

"customerName": "Tom"

}

1. **URI:** /productservice/reviews

**Security level:** ROLE\_CUSTOMER

**Resource Class:** ProductResource

**Http method:** POST

**Description:** Add a review on the product. (consumes and produces application/json)

**Parameters:**

{

"title": "text",

"comment": "text",

"rating": "integer",

"customerId": "integer"

}

**Request:**

/productservice/products/2/reviews

{

"title": "Very nice",

"comment": "wonderful items in my mind",

"rating": "5",

"customerId": "1"

}

**Response:**

{

"id": 308,

"title": "Very nice",

"comment": "wonderful items in my mind",

"rating": 5,

"customerName": "Byambatsog"

}

1. **URI:** /productservice/reviews/{reviewId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** ProductResource

**Http method:** PUT

**Description:** Update the review of the product (consumes application/json)

**Parameters:**

{

"title": "text",

"comment": "text",

"rating": "integer"

}

**Request:**

/productservice/reviews/308

{

"title": "Not very nice ",

"comment": "wonderful items in my mind",

"rating": "4"

}

**Response:**

{

"message": "Review updated successfully"

}

1. **URI:** /productservice/reviews/{reviewId}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** ProductResource

**Http method:** DELETE

**Description:** Delete the specified review of the product.

**Request:**

/productservice/reviews/308

**Response:**

{

"message": "Review deleted successfully"

}

1. **URI:** /categoryservice/categories

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** CategoryResource

**Http method:** GET

**Description:** Retrieve all product categories

**Request:**

/categoryservice/categories

**Response:**

{

"elements": [

{

"id": 1,

"name": "Cameras & Photo",

"description": ""

},

{

"id": 2,

"name": "Car Electronics",

"description": ""

},

{

"id": 3,

"name": "Cell Phones & Accessories",

"description": ""

},

{

"id": 4,

"name": "Computers & Tablets",

"description": ""

},

{

"id": 5,

"name": "TV, Video, & Audio",

"description": ""

},

{

"id": 6,

"name": "Video Games & Consoles",

"description": ""

},

{

"id": 7,

"name": "Virtual Reality",

"description": ""

},

{

"id": 8,

"name": "Computer Equipments",

"description": ""

},

{

"id": 9,

"name": "Electrical Equipmets",

"description": ""

},

{

"id": 10,

"name": "Musical Equipments",

"description": ""

}

],

"pageNumber": 1,

"pageSize": 10,

"totalNumberOfElements": 10

}

1. **URI:** /categoryservice/categories/{id}

**Security level:** ROLE\_ANONYMOUS

**Resource Class:** CategoryResource

**Http method:** GET

**Description:** Retrieve detailed information of the category.

**Request:**

/categoryservice/categories/7

**Response:**

{

"id": 7,

"name": "Virtual Reality",

"description": ""

}

1. **URI:** /orderservice/orders

**Security level:** ROLE\_CUSTOMER

**Resource Class:** OrderResource

**Http method:** POST

**Description:** Place an order (consumes application/json)

**Parameters:**

{

"customerId": "integer",

"shippingAddressId": "integer",

"billingAddressId": "integer",

"creditCardId": "integer"

}

**Request:**

/orderservice/orders

{

"customerId": 1,

"shippingAddressId": 1,

"billingAddressId": 1,

"creditCardId": 1

}

**Response:**

{

"id": 12,

"totalPrice": 2970,

"createdAt": "2016-11-08 20:31:24",

"paidAt": "2016-11-08 20:31:24",

"shippingAddress": "1246 W Pratt blvd, Chicago, IL 60626, United States, 7734567212",

"billingAddress": "1246 W Pratt blvd, Chicago, IL 60626, United States, 7734567212",

"customerId": 1,

"customerFirstName": "Byambatsog",

"paymentCardNumber": "...7777",

"paymentCardType": "Master",

"lastStatus": "ORDERED",

"products": [

{

"productId": 2,

"productName": "Apple iPhone 7 Plus (Latest Model)",

"productPicture": "http://i.ebayimg.com/images/g/yZ8AAOSw4shX-HvJ/s-l500.jpg",

"unitPrice": 990,

"quantity": 3,

"status": "ORDERED"

}

],

"statuses": [

{

"status": "ORDERED",

"created": "2016-11-08 20:31:24"

}

]

}

1. **URI:** /orderservce/orders/{id}

**Security level:** ROLE\_CUSTOMER

**Resource Class:** OrderResource

**Http method:** GET

**Description:** Retrieve detailed information of the specified order.

**Request:**

/orderservice/orders/5

**Response:**

{

"id": 5,

"totalPrice": 5791.83,

"createdAt": "2016-11-05 23:10:42",

"paidAt": "2016-11-05 23:10:42",

"shippingAddress": "1871 S King dr, Phoenix, AZ 87390, United States, 6268709809",

"billingAddress": "1871 S King dr, Phoenix, AZ 87390, United States, 6268709809",

"customerId": 4,

"customerFirstName": "Ogor",

"paymentCardNumber": "...5763",

"paymentCardType": "Master",

"lastStatus": "FULFILLED",

"products": [

{

"productId": 9,

"productName": "Lenovo ThinkPad P50 20EN0013US 15.6 inch",

"productPicture": "http://i.ebayimg.com/images/g/oC8AAOSwKtlWh~Zq/s-l1600.jpg",

"unitPrice": 1219.95,

"quantity": 3,

"status": "FULFILLED"

},

{

"productId": 8,

"productName": "Apple MacBook Pro MF839LL/A 13.3-Inch",

"productPicture": "http://i.ebayimg.com/images/g/5iQAAOSwLF1YBko3/s-l1600.jpg",

"unitPrice": 1065.99,

"quantity": 2,

"status": "FULFILLED"

}

],

"statuses": [

{

"status": "FULFILLED",

"created": "2016-11-06 12:32:13"

},

{

"status": "ORDERED",

"created": "2016-11-05 23:10:42"

}

]

}

1. **URI:** /orderservce/orders/{id}/statuses

**Security level:** ROLE\_CUSTOMER

**Resource Class:** OrderResource

**Http method:** GET

**Description:** Retrieve all status of the order.

**Request:**

/orderservice/orders/5/statuses

**Response:**

[

{

"status": "FULFILLED",

"created": "2016-11-06 12:32:13"

},

{

"status": "ORDERED",

"created": "2016-11-05 23:10:42"

}

]

1. **URI:** /orderservce/orders/{id}/products

**Security level:** ROLE\_CUSTOMER

**Resource Class:** OrderResource

**Http method:** GET

**Description:** Retrieve all products in the order.

**Request:**

/orderservice/order/5/product

**Response:**

[

{

"productId": 9,

"productName": "Lenovo ThinkPad P50 20EN0013US 15.6 inch",

"productPicture": "http://i.ebayimg.com/images/g/oC8AAOSwKtlWh~Zq/s-l1600.jpg",

"unitPrice": 1219.95,

"quantity": 3,

"status": "FULFILLED"

},

{

"productId": 8,

"productName": "Apple MacBook Pro MF839LL/A 13.3-Inch",

"productPicture": "http://i.ebayimg.com/images/g/5iQAAOSwLF1YBko3/s-l1600.jpg",

"unitPrice": 1065.99,

"quantity": 2,

"status": "FULFILLED"

}

]