



# Service Layer Design

Alec Lang - SWDV 691

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## Product(Seeds)

POST [http://evergrow.expressjs.com /api/product](http://evergrow.expressjs.com/api/product) – adds product to the page

Example request:

```
curl -request POST\  
-url http://evergrow.expressjs.com/api/product  
-header 'Content-Type: application/json'\  
-data'{  
  "name": "Carrot",  
  "price": "3.25"  
}
```

Success response:

```
curl -request POST\  
-url http://evergrow.expressjs.com/api/product  
-header 'Content-Type: application/json'\  
-data'{  
  "ProductID": "1",  
  "CategoryID": "2",  
  "name": "Carrot",  
  "price": "3.25"  
}
```

Error response:

```
{  
  "code": 400,  
  "message": "\"name\" is required"  
}
```

PUT [http://evergrow.expressjs.com /api/product](http://evergrow.expressjs.com/api/product) – updates an existing product

Example request:

```
curl -request PUT\  
-url http://evergrow.expressjs.com/api/product  
-header 'Content-Type: application/json'\  
-data'{  
  "ProductID": "1",  
  "CategoryID": "2",  
  "name": "Heirloom Carrot",
```

```
"price": "3.25"
}
```

Success response:

```
curl -request PUT\
-url http://evergrow.expressjs.com/api/product
-header 'Content-Type: application/json'\
-data'{
  "ProductID": "1",
  "CategoryID": "2",
  "name": "Heirloom Carrot",
  "price": "3.25"
}
```

Error response:

```
{
  "code": 400,
  "message": "\"name\" is required"
}
```

**GET** [http://evergrow.expressjs.com /api/product/{ProductID}](http://evergrow.expressjs.com/api/product/{ProductID}) – gets product by ID

Example request:

```
curl -request GET\
-url http://evergrow.expressjs.com/api/product/{ProductID}
```

Success response:

```
curl -request GET\
-url http://evergrow.expressjs.com/api/product/{ProductID}
-header 'Content-Type: application/json'\
-data'{
  "ProductID": "1",
  "CategoryID": "2",
  "name": "Carrot",
  "price": "3.25"
}
```

Error response:

```
{
  "code": 404,
  "message": "Product is unavailable."
}
```

**DELETE** [http://evergrow.expressjs.com /api/product/{ProductID}](http://evergrow.expressjs.com/api/product/{ProductID}) – deletes a product

Example request:

```
curl -request DELETE\  
-url http://evergrow.expressjs.com/api/product/{ProductID}
```

Success response:

```
{  
  "status": 200,  
  "message": "ProductID: {ProductID}, Name: Carrot, was deleted."  
}
```

Error response:

```
{  
  "status": 404,  
  "message": "Product does not exist."  
}
```

**GET** [http://evergrow.expressjs.com /api/product/price](http://evergrow.expressjs.com/api/product/price) – gets price of a product

Example request:

```
curl -request GET\  
-url http://evergrow.expressjs.com/api/product/price
```

Success response:

```
curl -request GET\  
-url http://evergrow.expressjs.com/api/product/price  
-header 'Content-Type: application/json'\  
-data'{  
  "ProductID": "1",  
  "CategoryID": "2",  
  "name": "Carrot",  
  "price": "3.25"  
}
```

Error response:

```
{  
  "code": 404,
```

```
}
  "message": "Product is unavailable."
}
```

POST [http://evergrow.expressjs.com /api/product/price](http://evergrow.expressjs.com/api/product/price) – creates price of a product

Example request:

```
curl -request POST\
-url http://evergrow.expressjs.com/api/product/price
-header 'Content-Type: application/json'\
-data '{
  "name": "Heirloom Carrot",
  "price": "4.00"
}'
```

Success response:

```
curl -request POST\
-url http://evergrow.expressjs.com/api/product/price
-header 'Content-Type: application/json'\
-data '{
  "ProductID": "2",
  "CategoryID": "2",
  "name": "Heirloom Carrot",
  "price": "4.00"
}'
```

Error response:

```
{
  "code": 400,
  "message": "\"price\" is required"
}
```

PUT [http://evergrow.expressjs.com /api/product/price](http://evergrow.expressjs.com/api/product/price) – updates price of a product

Example request:

```
curl -request PUT\
```

```
-url http://evergrow.expressjs.com/api/product/price
-header 'Content-Type: application/json'\
-data'{
  "ProductID": "1",
  "CategoryID": "2",
  "name": "Heirloom Carrot",
  "price": "3.75"
}
```

Success response:

```
curl -request PUT\
-url http://evergrow.expressjs.com/api/product/price
-header 'Content-Type: application/json'\
-data'{
  "ProductID": "1",
  "CategoryID": "2",
  "name": "Heirloom Carrot",
  "price": "3.75"
}
```

Error response:

```
{
  "code": 400,
  "message": "\"price\" is required"
}
```

## Orders

POST [http://evergrow.expressjs.com /api/order](http://evergrow.expressjs.com/api/order) – creates an order

Example request:

```
curl -request POST\  
-url http://evergrow.expressjs.com/api/order  
-header 'Content-Type: application/json'\  
-data'{  
  "order_number": "222",  
  "order_date": "11/3/2023"  
  "total": "13"  
  "User": {  
    "first_name": "Ron",  
    "last_name": "Smith",  
    "username": "rsmith1",  
    "password": "password",  
    "address": "1 Firefly Lane",  
    "city": "Wood",  
    "state": "MO",  
    "postal_code": "1111",  
    "billing_address": "1 Firefly Lane, Wood, MO 11111",  
    "email": rsmith@email.com,  
    "phone": "111-111-1111",  
  }  
  "Product": {  
    "name": "Carrot",  
    "price": "3.25"  
  }  
}
```

Success response:

```
{
  'data': {
    "order_number": "222",
    "order_quantity": "4"
    "total": "13"
    "User": {
      "first_name": "Ron",
      "last_name": "Smith",
      "username": "rsmith1",
      "password": "password",
      "address": "1 Firefly Lane",
      "city": "Wood",
      "state": "MO",
      "postal_code": "1111",
      "billing_address": "1 Firefly Lane, Wood, MO 11111",
      "email": "rsmith@email.com",
      "phone": "111-111-1111",
    }
    "Product": {
      "name": "Carrot",
      "price": "3.25"
    }
  }
}
```

Error response:

```
{
```



```
{
  "code": 400,
  "message": "\"order_date\" is required"
}
```

GET <http://evergrow.expressjs.com/api/order/{OrderID}> – gets an order by ID

Example request:

```
curl -request GET\
-url http://evergrow.expressjs.com/api/order/{OrderID}
```

Success response:

```
data'{
  "OrderID": "1"
  "order_number": "222",
  "order_quantity": "4"
  "total": "13"
  "User": {
    "first_name": "Ron",
    "last_name": "Smith",
    "username": "rsmith1",
    "password": "password",
    "address": "1 Firefly Lane",
    "city": "Wood",
    "state": "MO",
    "postal_code": "1111",
    "billing_address": "1 Firefly Lane, Wood, MO 11111",
    "email": "rsmith@email.com",
    "phone": "111-111-1111",
  }
  "Product": {
    "name": "Carrot",
    "price": "3.25"
  }
}
```

Error response:

```
{
  "code": 404,
```

```
{
  "message": "Product is unavailable."
}
```

**DELETE** [http://evergrow.expressjs.com /api/order/{OrderID}](http://evergrow.expressjs.com/api/order/{OrderID}) – deletes an order by ID

Example request:

```
curl -request DELETE\
-url http://evergrow.expressjs.com/api/order/{OrderID}
```

Success response:

```
{
  "status": 200,
  "message": "OrderID: {OrderID} was deleted."
}
```

Error response:

```
{
  "status": 404,
  "message": "Order does not exist."
}
```

**GET** [http://evergrow.expressjs.com /api/order/order\\_number](http://evergrow.expressjs.com/api/order/order_number) – gets an order number

Example request:

```
curl -request GET\
-url http://evergrow.expressjs.com/api/order/order_number
```

Success response:

```
data'{
  "OrderID": "1"
  "order_number": "222",
  "order_quantity": "4"
  "total": "13"
  "User": {
    "first_name": "Ron",
    "last_name": "Smith",
    "username": "rsmith1",
    "password": "password",
    "address": "1 Firefly Lane",
    "city": "Wood",
```

```
{
  "state": "MO",
  "postal_code": "1111",
  "billing_address": "1 Firefly Lane, Wood, MO 11111",
  "email": "rsmith@email.com",
  "phone": "111-111-1111"
}
"Product": {
  "name": "Carrot",
  "price": "3.25"
}
}
```

Error response:

```
{
  "status": 404,
  "message": "Order does not exist."
}
```

## Inventory

POST [http://evergrow.expressjs.com /api/inventory/{InventoryID}](http://evergrow.expressjs.com/api/inventory/{InventoryID}) – creates inventory item by ID

Example request:

```
curl -request POST\
-url http://evergrow.expressjs.com/api/inventory/{InventoryID}
-header 'Content-Type: application/json'\
-data '{
  "quantity": "1000"
  "Product": {
    "name": "Carrot",
    "price": "3.25"
  }
}
```

Success response:

```
data'{
  "InventoryID: 1"
  "quantity": "1000"
  "Product": {
    "name": "Carrot",
    "price": "3.25"
  }
}
```

Error response:

```
{
  "code": 400,
  "message": "\"quantity\" is required"
}
```

**GET** [http://evergrow.expressjs.com /api/inventory/{InventoryID}](http://evergrow.expressjs.com/api/inventory/{InventoryID}) – gets inventory by ID

Example request:

```
curl -request GET\
-url http://evergrow.expressjs.com/api/inventory/{InventoryID}
```

Success response:

```
data'{
  "InventoryID": 1
  "quantity": "1000"
  "Product": {
    "name": "Carrot",
    "price": "3.25"
  }
}
```

Error response:

```
{
  "status": 404,
  "message": "InventoryID does not exist."
}
```

**PUT** [http://evergrow.expressjs.com /api/inventory/{InventoryID}](http://evergrow.expressjs.com/api/inventory/{InventoryID}) – updates inventory by ID

Example request:

```
curl -request PUT\
-url http://evergrow.expressjs.com/api/inventory/{InventoryID}
-header 'Content-Type: application/json'
```

```
-data'{
  "quantity": "950"
  "Product": {
    "name": "Carrot",
    "price": "3.25"
  }
}
```

Success response:

```
data'{
  "quantity": "950"
  "Product": {
    "name": "Carrot",
    "price": "3.25"
  }
}
```

Error response:

```
{
  "code": 400,
  "message": "\"quantity\" is required"
}
```

**DELETE** [http://evergrow.expressjs.com /api/inventory/{InventoryID}](http://evergrow.expressjs.com/api/inventory/{InventoryID}) – deletes inventory by ID

Example request:

```
curl -request DELETE\
-url http://evergrow.expressjs.com/api/inventory/{InventoryID}
```

Success response:

```
{
  "status": 200,
  "message": "InventoryID: {InventoryID} was deleted."
}
```

Error response:

```
{
  "status": 404,
  "message": "Inventory item does not exist."
}
```

## User

POST [http://evergrow.expressjs.com /api/user/](http://evergrow.expressjs.com/api/user/) – creates user

Example request:

```
curl -request POST\  
-url http://evergrow.expressjs.com/api/inventory/{InventoryID}  
-header 'Content-Type: application/json'\  
-data'{  
  "first_name": "Ron",  
  "last_name": "Smith",  
  "username": "rsmith1",  
  "password": "password",  
  "address": "1 Firefly Lane",  
  "city": "Wood",  
  "state": "MO",  
  "postal_code": "1111",  
  "billing_address": "1 Firefly Lane, Wood, MO 11111",  
  "email": "rsmith@email.com",
```

```
"phone": "111-111-1111"
}
```

Success response:

```
data'{
  "first_name": "Ron",
  "last_name": "Smith",
  "username": "rsmith1",
  "password": "password",
  "address": "1 Firefly Lane",
  "city": "Wood",
  "state": "MO",
  "postal_code": "1111",
  "billing_address": "1 Firefly Lane, Wood, MO 11111",
  "email": "rsmith@email.com",
  "phone": "111-111-1111"
}
```

Error response:

```
{
  "code": 400,
  "message": "\"username\" is required"
}
```

GET [http://evergrow.expressjs.com /api/user/username](http://evergrow.expressjs.com/api/user/username) – gets a username

Example request:

```
curl -request GET\
-url http://evergrow.expressjs.com/api/user/username
```

Success response:

```
data'{
  "first_name": "Ron",
  "last_name": "Smith",
  "username": "rsmith1",
  "password": "password",
  "address": "1 Firefly Lane",
  "city": "Wood",
  "state": "MO",
  "postal_code": "1111",
  "billing_address": "1 Firefly Lane, Wood, MO 11111",
  "email": "rsmith@email.com",
}
```

```
    "phone": "111-111-1111"  
  }
```

Error response:

```
{  
  "status": 404,  
  "message": "Username does not exist."  
}
```

PUT [http://evergrow.expressjs.com /api/user/username](http://evergrow.expressjs.com/api/user/username) – updates a user by username

Example request:

```
curl -request PUT\  
-url http://evergrow.expressjs.com/api/inventory/{InventoryID}  
-header 'Content-Type: application/json'\  
-data'{  
  "first_name": "Ron",  
  "last_name": "Smith",  
  "username": "rsmith97",  
  "password": "password",  
  "address": "1 Firefly Lane",  
  "city": "Wood",  
  "state": "MO",  
}
```



```
"postal_code": "1111",
"billing_address": "1 Firefly Lane, Wood, MO 11111",
"email": "rsmith@email.com",
"phone": "111-111-1111"
}
```

Success response:

```
data'{
  "first_name": "Ron",
  "last_name": "Smith",
  "username": "rsmith97",
  "password": "password",
  "address": "1 Firefly Lane",
  "city": "Wood",
  "state": "MO",
  "postal_code": "1111",
  "billing_address": "1 Firefly Lane, Wood, MO 11111",
  "email": "rsmith@email.com",
  "phone": "111-111-1111"
}
```

Error response:

```
{
  "code": 400,
  "message": "\"username\" is required"
}
```

**DELETE** [http://evergrow.expressjs.com /api/user/{UserID}](http://evergrow.expressjs.com/api/user/{UserID}) – deletes a user by ID

Example request:

```
curl -request DELETE\
-url http://evergrow.expressjs.com/api/user/{UserID}
```

Success response:

```
{
  "status": 200,
  "message": "User: {UserID} was deleted."
}
```

Error response:

```
{
```

```
{
  "status": 404,
  "message": "User does not exist."
}
```

**DELETE** [http://evergrow.expressjs.com /api/user/username](http://evergrow.expressjs.com/api/user/username)– deletes a username

Example request:

```
curl -request DELETE\
-url http://evergrow.expressjs.com/api/user/username
```

Success response:

```
{
  "status": 200,
  "message": "Username: rsmith97 was deleted."
}
```

Error response:

```
{
  "status": 404,
  "message": "Username does not exist."
}
```

**GET** [http://evergrow.expressjs.com /api/user/email](http://evergrow.expressjs.com/api/user/email) – gets a user email

Example request:

```
curl -request GET\
-url http://evergrow.expressjs.com/api/user/email
```

Success response:

```
data'{
  "first_name": "Ron",
```

```
"last_name": "Smith",  
"username": "rsmith97",  
"password": "password",  
"address": "1 Firefly Lane",  
"city": "Wood",  
"state": "MO",  
"postal_code": "1111",  
"billing_address": "1 Firefly Lane, Wood, MO 11111",  
"email": "rsmith@email.com",  
"phone": "111-111-1111"  
}
```

Error response:

```
{  
  "status": 404,  
  "message": "User email does not exist."  
}
```

GET [http://evergrow.expressjs.com /api/user/phone](http://evergrow.expressjs.com/api/user/phone) – gets a user phone number

Example request:

```
curl -request GET\  
-url http://evergrow.expressjs.com/api/user/phone
```

Success response:

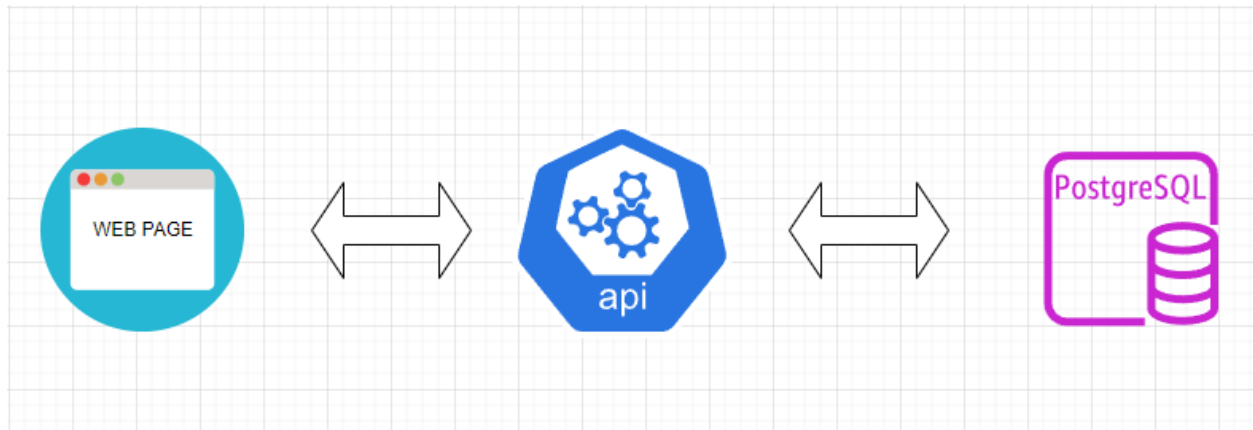
```
data'{'
```

```
"first_name": "Ron",  
  "last_name": "Smith",  
  "username": "rsmith97",  
  "password": "password",  
  "address": "1 Firefly Lane",  
  "city": "Wood",  
  "state": "MO",  
  "postal_code": "1111",  
  "billing_address": "1 Firefly Lane, Wood, MO 11111",  
  "email": "rsmith@email.com",  
  "phone": "111-111-1111"  
}
```

Error response:

```
{  
  "status": 404,  
  "message": "User phone does not exist."  
}
```

PAGE DIAGRAM:



Pages included are:

- Home page
- Search result page
- Seed category page
- User account page, login, order details
- Admin page, login
- Shopping cart page