POS Project API & DTO Reference

Note: All endpoints require a Bearer token for security.

▼ Security

▼ Login Authenticates a user and generates a JWT token.

```
POST http://localhost:8889/login

{
    "username": "admin",
    "password": "admin"
}

Response

{
    "token": "eyJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJQT1MgU2VjdXJpdHkiLCJpYXQiOjE3MTkyMjM1MzYsImV4cCI6MTcxOTIzNzkzNiwic3ViIjoiYWRt
    "username": "admin"
}
```

▼ User Service

Request

Note: The user must have the ADMIN role.

▼ Register User User registers to the system, multiple registrations can be made at the same time.

```
POST http://localhost:8889/user/management
```

- username: Must be between 1 and 50 characters, no spaces.
- email: Must be a valid email format.
- roles: At least one role is required.
- password: Must be between 8 and 100 characters.
- name: Must be between 1 and 50 characters, cannot start or end with a space.
- surname: Must be between 1 and 50 characters, cannot start or end with a space.

Response

```
Employees saved successfully
```

▼ update user Updates the details of an existing user with the provided information; unspecified fields remain unchanged.

Request

```
PUT http://localhost:8889/user/management/{id}
```

- username: Must be between 1 and 50 characters, no spaces.
- email: Must be a valid email format.
- roles: At least one role is required.
- password: Must be between 8 and 100 characters, cannot be blank or contain only whitespace.
- name: Must be between 1 and 50 characters, cannot start or end with a space.
- surname: Must be between 1 and 50 characters, cannot start or end with a space.

Resnonse

```
Id with {id} updated
```

▼ Delete User Soft deletes a user with the specified ID, marking the user as deleted.

Request

```
DELETE http://localhost:8889/user/management/{id}
```

Response

```
Id with {id} deleted
```

▼ Reactivate User Reactivates a user that was previously soft deleted.

Request

```
PUT http://localhost:8889/user/management/reactivate-by-id/{id}
```

Response

```
Id with {id} updated
```

▼ Get By Username Retrieves user details based on the specified username.

Request

```
GET http://localhost:8889/user/management/{id}
```

Response

▼ Get By ID Retrieves user details based on the ID.

Request

GET http://localhost:8889/user/search/{id}

Response

lacktriangledown Retrieves a page of users based on the provided parameters.

Request

GET http://localhost:8889/user/search

Parameters

```
pageSize (integer, optional): The number of users to return per page.
pageNumber (integer, optional): The page number to retrieve.
hideDeleted (boolean, optional): Boolean flag to hide soft-deleted users.
```

```
"content": [
       "id": 52,
       "username": "admin",
       "name": "Admin",
       "surname": "Default",
       "email": "admin@admin.com",
       "roles": [
           {
               "roleName": "ADMIN"
           }
       ],
       "deleted": false
   },
   }
"pageable": {
   "pageNumber": 0,
   "pageSize": 10,
   "sort": {
       "empty": false,
       "sorted": true,
       "unsorted": false
   "offset": 0,
   "paged": true,
   "unpaged": false
"totalPages": 1,
"totalElements": 2,
"last": true,
```

```
"size": 10,
"number": 0,
"sort": {
    "empty": false,
    "sorted": true,
    "unsorted": false
},
"numberOfElements": 2,
"first": true,
"empty": false
}
```

▼ Product Service

Note: Can access any role that is logged in.

lacktriangledown Save Product Adds a new product to the system.

Request

```
POST http://localhost:8889/product/management
```

Body (form-data)

```
file (optional): image file.

product (application-json):
{
    "name": "apple",
    "barcode": "12345",
    "price": 10.99,
    "stock": 10
}
```

- name: Must be between 1 and 50 characters, cannot be empty or null.
- barcode: Must be between 1 and 35 characters, cannot contain whitespace, and cannot be empty or null.
- price: Cannot be null, must be positive or zero, and must have up to 2 decimal places.
- stock: Cannot be null and must be positive or zero.

Response

Product saved successfully

▼ Update Product Updates an existing product with the specified barcode.

Request

```
PUT http://localhost:8889/product/management/{barcode}
```

Body (form-data)

```
file (optional): image file.

product (application-json):
{
    "name": "apple",
    "barcode": "12345",
    "price": 10.99,
    "stock": 10
}
```

- name: Must be between 1 and 50 characters, cannot be empty or null.
- barcode: Must be between 1 and 35 characters, cannot contain whitespace, and cannot be empty or null.
- price: Cannot be null, must be positive or zero, and must have up to 2 decimal places.
- stock: Cannot be null and must be positive or zero.

Response

Product updated successfully

```
▼ Update Product Stock Updates the stock quantity of a product by barcode.
   PUT http://localhost:8889/product/management/{barcode}/stock
  Parameters
   stockChange (integer, required): positive or negative, the quantity to be updated in stock
   Stock updated for product with barcode {barcode}. New stock level: {integer}
▼ Delete Product Soft deletes a product with the specified Barcode, marking the product as deleted.
  Request
   DELETE http://localhost:8889/product/management/{barcode}
  Response
   The product with the barcode {barcode} has been deleted.
lacktriangledown Re-add the product that was previously soft deleted.
   PUT http://localhost:8889/product/management/re-add/{barcode}
  Response
   The product with the barcode {barcode} has been re-added.
▼ Get By Barcode Retrieves product details based on the specified barcode.
  Request
   GET http://localhost:8889/product/search/{barcode}
  Response
   {
        "name": "apple",
       "barcode": "12345",
       "price": 99.00,
        "stock": 5,
        "creationDate": "2024-06-24T11:21:15.804319",
       "lastUpdateDate": "2024-06-24T11:35:46.313588",
        "imageCode": 4593623573232274660,
        "hasImage": true,
       "deleted": false
   }
▼ Get By Filter Retrieves a page of products based on the provided filter criteria.
   GET http://localhost:8889/product/search/filter
  Body
    {
     //"page": 1,
     //"size": 10,
      "sortBy": "price",
     //"sortDir": "desc",
      "minPrice": 0.01,
     "maxPrice": 999999.99,
     //"minStock": 0,
```

POS Project API & DTO Reference 5

//"maxStock": 1000000,

```
//"creationDateStart": "2023-01-01T00:00:00",
//"creationDateEnd": "2024-12-01T23:59:59",
//"lastUpdateDateStart": "2023-01-01T00:00:00",
//"lastUpdateDateEnd": "2024-12-01T23:59:59",
//"hasImage": true,
"deleted": false
}
```

- page: Must be at least 1.
- size: Must be at least 1.
- sortBy: Valid values are 'name', 'price', 'stock', 'creationDate', 'lastUpdateDate'.
- sortDir: Valid values are 'asc' or 'desc'.
- minPrice: Must be greater than zero.
- maxPrice: Must be less than 1,000,000.
- minStock: Must be at least 0.
- maxStock: Must be less than or equal to 1,000,000.
- creationDateStart: Must be in the format 'yyyy-MM-ddTHH:mm'.
- creationDateEnd: Must be in the format 'yyyy-MM-ddTHH:mm'.
- lastUpdateDateStart: Must be in the format 'yyyy-MM-ddTHH:mm'.
- lastUpdateDateEnd: Must be in the format 'yyyy-MM-ddTHH:mm'.
- deleted: Boolean flag to include deleted products.
- hasImage: Boolean flag to filter products with images.

```
"content": [
        "name": "Lightweight Silk Gloves",
        "barcode": "1987573323",
        "price": 0.41,
        "stock": 15,
        "creationDate": "2024-06-24T10:04:09.412295",
        "lastUpdateDate": null,
        "imageCode": null,
        "hasImage": false,
        "deleted": false
   },
    { ... }
"pageable": {
    "pageNumber": 0,
    "pageSize": 10,
    "sort": [
       {
            "direction": "ASC",
            "property": "price",
            "ignoreCase": false,
            "nullHandling": "NATIVE",
            "ascending": true,
            "descending": false
       }
    "offset": 0,
    "paged": true,
    "unpaged": false
"totalElements": 101,
"totalPages": 11,
"last": false,
"size": 10,
"number": 0,
"sort": [
   {
        "direction": "ASC",
        "property": "price",
        "ignoreCase": false,
```

▼ Get By Prefix Retrieves a page of products whose names start with the specified prefix.

Request

GET http://localhost:8889/product/search/by-prefix

Parameters

```
prefix (string, required): The prefix to filter product names by.
pageSize (integer, optional): The number of users to return per page.
pageNumber (integer, optional): The page number to retrieve.
hideDeleted (boolean, optional): Boolean flag to hide soft-deleted users.
```

- page: Must be at least 1.
- size: Must be at least 1.

Response

```
"content": [
   {
        "name": "Aerodynamic Bronze Bench",
        "barcode": "0766610667",
        "price": 540.68,
        "stock": 703,
        "creationDate": "2024-06-24T10:04:09.398948",
        "lastUpdateDate": null,
        "imageCode": null,
        "hasImage": false,
        "deleted": false
    {...}
"pageable": {
    "pageNumber": 0,
    "pageSize": 10,
    "sort": [
       {
            "direction": "ASC",
            "property": "name",
            "ignoreCase": false,
            "nullHandling": "NATIVE",
            "ascending": true,
            "descending": false
       }
   1,
    "offset": 0,
    "paged": true,
    "unpaged": false
"totalElements": 11,
"totalPages": 2,
"last": false,
"size": 10,
"number": 0,
"sort": [
        "direction": "ASC",
        "property": "name",
        "ignoreCase": false,
        "nullHandling": "NATIVE",
        "ascending": true,
```

```
"descending": false
}

l,

"numberOfElements": 10,

"first": true,

"empty": false
}
```

▼ Get Image By Image Code Retrieves image based on the imageCode.

Request

GET http://localhost:8889/product/search/image/{imageCode}

Response

image file

▼ pelete Image Soft deletes a image of the product with the specified Barcode, marking the image as deleted.

Request

DELETE http://localhost:8889/product/management/delete-image/{barcode}

Response

The product image with the barcode {barcode} has been deleted.

▼ Sale Service

Note: The user must have the CASHIER role.

Bag:

▼ Add Product to Bag Adds a product to a bag.

Request

POST http://localhost:8889/sale/bags/products

Parameters

bagId (long, optional): If a bag id is not given or an invalid bag id is given, a new bag will be created. barcode (string, required): of the product to be added quantity (integer, required): number of products to be added

Response

▼ Remove Product from Bag Removes a specified quantity of a product from a bag.

Request

DELETE http://localhost:8889/sale/bags/products

```
Parameters
```

```
bagId (long, required): where the product will be removed
barcode (string, required): of the product to be remove
quantity (integer, required): number of products to be removed
```

Response

```
{
    "id": 4387403859385740712,
   "totalPrice": 594.00,
    "campaignId": null,
    "campaignName": null,
   "discountType": null,
    "discountValue": 0.0,
    "discountedPrice": null,
    "items": [
        {
            "barcode": "12345",
            "quantity": 6,
            "price": 99.00,
            "name": "apple"
       }
   ]
}
```

▼ Remove All Products from Bag Removes all products from a specified bag.

Request

DELETE http://localhost:8889/sale/bags/{bagId}/products

Response

```
{
    "id": 4387403859385740712,
    "totalPrice": 0,
    "campaignId": null,
    "campaignName": null,
    "discountType": null,
    "discountValue": 0.0,
    "discountedPrice": null,
    "items": []
}
```

▼ Deletes a specified bag.

Request

DELETE http://localhost:8889/sale/bags/{bagId}

Response

The bag with ID {bagId} has been deleted.

Campaign:

▼ Add Campaign Adds a new campaign.

Request

POST http://localhost:8889/sale/campaigns

Body

```
{
    "name": "Special",
    "startDate": "2024-01-01",
    "endDate": "2024-12-31",
    "discountType": "PERCENTAGE", // or "FIXED_AMOUNT"
```

```
"discountValue": 10
  }
  Response
   Successfully added campaign
lacktriangledown Updates the start and end dates of a specified campaign.
  Request
   PUT http://localhost:8889/sale/campaigns/{campaignId}
  Body (form-data)
   startDate (optional): ex: 2024-03-01
   endDate (optional): ex: 2024-07-02
  Response
   {
       "id": 2,
       "name": "Special",
       "startDate": "2024-03-01T00:00:00",
       "endDate": "2024-07-02T00:00:00",
       "discountType": "PERCENTAGE",
"discountValue": 10.0,
       "deleted": false
   }
▼ <u>Delete Campaign</u> Deletes a specified campaign.
  Request
   DELETE http://localhost:8889/sale/campaigns/{campaignId}
   Campaign with ID {campaingId} successfully deleted
▼ Get Campaign Retrieves the details of a specified campaign.
  Request
   GET http://localhost:8889/sale/campaigns/{campaignId}
  Response
   {
       "id": 2,
       "name": "Special",
       "startDate": "2024-03-01T00:00:00",
       "endDate": "2024-07-02T00:00:00",
       "discountType": "PERCENTAGE",
"discountValue": 10.0,
       "deleted": false
   }
▼ Get All Campaigns Retrieves a page of all campaigns.
  Request
   GET http://localhost:8889/sale/campaigns
  Response
   {
        "content": [
           {
                "id": 2,
"name": "Special",
                 "startDate": "2024-03-01T00:00:00",
```

```
"endDate": "2024-07-02T00:00:00",
             "discountType": "PERCENTAGE",
"discountValue": 10.0,
             "deleted": false
        }
    "pageable": {
         "pageNumber": 0,
         "pageSize": 10,
         "sort": [],
        "offset": 0,
         "paged": true,
         "unpaged": false
    "last": true,
    "totalElements": 2,
    "totalPages": 1,
    "size": 10,
    "number": 0,
    "sort": [],
    "first": true,
    "numberOfElements": 2,
    "empty": false
}
```

▼ Apply Campaign to Bag Applies a specified campaign to a specified bag.

Request

```
POST http://localhost:8889/sale/bags/{bagId}/campaign/{campaignId}
```

Response

▼ Remove Campaign from Bag Removes a campaign from a specified bag.

Request

```
DELETE http://localhost:8889/sale/bags/{bagId}/campaign
```

```
Response
```

Sale:

lacktriangledown Completes the sale of a bag, processing payment and generating a receipt tracking code.

Request

```
POST http://localhost:8889/sale/{bagId}
```

Parameters

```
amountReceived (Big decimal, required): amount received for payment.
paymentMethod (Enum, required): CREDIT_CARD or CASH
```

Response

```
"requestId": "9000cc8b-a605-4222-b6d2-fdabcf2f5c53",
    "saleDto": {
       "id": 101,
        "cashierName": "userName",
        "totalPrice": 396.00,
        "discountedPrice": null,
        "campaignName": null,
        "campaignId": null,
        "discountType": null,
        "discountValue": 0.0,
        "amountReceived": 396.00,
        "change": 0,
        "paymentMethod": "CREDIT_CARD",
        "saleDate": "2024-06-24T15:36:59.180124041",
        "saleItems": [
            {
                "barcode": "12345",
                "name": "apple",
                "quantity": 4,
                "salePrice": 99.00
            }
        "cancelled": false
}
```

▼ Cancel sale Cancels a specified sale, reversing the transaction.

Request

DELETE http://localhost:8889/sale/{saleId}/cancel

Response

Sale successfully cancelled.

▼ Reporting Service

Note: The user must have the MANAGER role.

▼ Get Sale Retrieves the details of a specific sale by its ID.

Request

GET http://localhost:8889/report/{saleId}

```
"id": 101,
    "cashierName": "userName",
    "totalPrice": 396.00,
    "discountedPrice": null,
    "campaignName": null,
    "campaignId": null,
    "discountType": null,
    "discountValue": 0.0,
    "amountReceived": 396.00,
    "change": 0.00,
    "paymentMethod": "CREDIT_CARD",
    "saleDate": "2024-06-24T15:36:59.180124",
    "saleItems": [
            "barcode": "12345",
            "name": "apple",
            "quantity": 4,
            "salePrice": 99.00
       }
    1.
    "cancelled": true
}
```

▼ <u>Get Sales By Criteria</u> Retrieves a list of sales based on the provided search criteria.

Request

```
GET http://localhost:8889/report
```

```
Body
```

```
{
    "minTotalPrice": 1,
    "maxTotalPrice": 100000,
    //"hasCampaign": false,
    //"campaignId": 1,
    "paymentMethod": "CREDIT_CARD",    //or "CASH"
    "saleDateStart": "2024-01-14T00:00:00",
    "saleDateEnd": "2024-12-19T23:59:59",
    "sortBy": "saleDate",
    "sortDir": "asc",
    "page": 1,
    "size": 10,
    "includeCanceled": false
}
```

- minTotalPrice (BigDecimal, optional): Must be greater than 0.
- hasCampaign (Boolean, optional): Filter sales that have or do not have a campaign.
- campaignId (Long, optional): Filter sales by a specific campaign ID.
- paymentMethod (Enum, optional): Filter sales by the payment method used.
- saleDateStart (String, optional): Must be in the format 'yyyy-MM-ddTHH:mm'.
- saleDateEnd (String, optional): Must be in the format 'yyyy-MM-ddTHH:mm'.
- sortBy (String, optional): Sort the sales by 'saleDate', 'totalPrice', or 'discountedPrice'.
- sortDir (String, optional): either 'asc' or 'desc'.
- page (Integer, optional): Must be at least 1.
- **size** (Integer, optional): Must be at least 1.
- $\bullet \ \ \textbf{includeCanceled} \ \ \textbf{(Boolean, optional):} \quad \textbf{Include canceled sales in the results.}$

```
"campaignName": "Dickinson LLC",
            "campaignId": 758206,
            "discountType": "FIXED_AMOUNT",
            "discountValue": 34.7,
            "amountReceived": 748.30,
            "change": 12.78,
            "paymentMethod": "CREDIT_CARD",
            "saleDate": "2024-01-18T10:04:09.593796",
            "saleItems": [
                     "barcode": "0867826509",
                     "name": "Ergonomic Marble Gloves",
                     "quantity": 5,
                    "salePrice": 93.97
                }
             "cancelled": false
        }
    1,
    "pageable": {
        "pageNumber": 0,
        "pageSize": 10,
        "sort": {
            "empty": false,
            "unsorted": false,
            "sorted": true
        "offset": 0,
        "paged": true,
        "unpaged": false
    "totalElements": 19,
    "totalPages": 2,
    "last": false,
    "size": 10,
    "number": 0,
    "sort": {
        "empty": false,
        "unsorted": false,
        "sorted": true
    "numberOfElements": 10,
    "first": true,
    "empty": false
}
```

v Set Sales Excel File By Criteria Generates an Excel file of sales based on the provided search criteria and sends it to the specified email.

Request

```
GET http://localhost:8889/report/excel
```

Parameter

email (required): The address to which the excel file will be directed.

```
Body
```

```
"minTotalPrice": 1,
    "maxTotalPrice": 100000,
//"hasCampaign": false,
//"campaignId": 1,
//"paymentMethod": "CREDIT_CARD", or "CASH"
    "saleDateStart": "2024-01-14T00:00:00",
    "saleDateEnd": "2024-12-14T23:59:59",
    "includeCanceled": false
}
```

- minTotalPrice (BigDecimal, optional): Must be greater than 0.
- hasCampaign (Boolean, optional): Filter sales that have or do not have a campaign.

- campaignId (Long, optional): Filter sales by a specific campaign ID.
- paymentMethod (Enum, optional): Filter sales by the payment method used.
- saleDateStart (String, optional): Must be in the format 'yyyy-MM-ddTHH:mm'.
- saleDateEnd (String, optional): Must be in the format 'yyyy-MM-ddTHH:mm'.
- includeCanceled (Boolean, optional): Include canceled sales in the results.

Response

```
Excel report request received. The report will be sent to: {email}
```

▼ Generate Receipt It receives a request to create a pdf of the sale and returns the request id.

Request

```
POST http://localhost:8889/report/generate-receipt/{saleId}
```

Response

```
Tracking request id: {requestId}
```

▼ Receipt Status Retrieves the status of a receipt generation request.

Request

```
GET http://localhost:8889/report/status/receipt/{requestId}
```

Response

```
PDF Receipt file. (fail or processing is also an option)
```

▼ create Schedule Job Schedules a reporting job based on the provided criteria and sends reports to the specified email at the specified interval.

Request

```
POST http://localhost:8889/report/schedule
```

Body

```
{
  "criteria": {
    "minTotalPrice": 1,
    "maxTotalPrice": 1000000,
    //"hasCampaign": true,
    //"campaignId": 1,
    //"paymentMethod": "CREDIT_CARD", or "CASH"
    //"includeCanceled": false,
    "lookbackPeriodInDays": 30
},
  "email": "emiraktas143@gmail.com",
  "jobName": "monthlySalesReportJob",
  "daysInterval": 1
}
```

- criteria (SaleSearchCriteriaForJob, required): Must not be null and must be valid. A report is sent only based on the added criteria.
 - lookbackPeriodInDays: The period in days to look back for sales data.
 - \circ minTotalPrice: Must be greater than 0.
 - maxTotalPrice: The maximum total price of the sales to be retrieved.
 - hasCampaign: Boolean flag to filter sales that have or do not have a campaign.
 - o campaignId: Filter sales by a specific campaign ID.
 - $\circ~$ include Canceled: ~ Boolean flag to include canceled sales in the results.
 - paymentMethod: Filter sales by the payment method used.
- email (String, required): The email to which the report will be sent. Must be a valid email format and not blank.
- jobName (String, required): The name of the job. Must not be blank.
- daysInterval (Integer, required): The interval in days at which the report will be generated and sent. Must be at least 1.

```
Job scheduled successfully: {jobName}
```

▼ Get All Jobs Lists all scheduled reporting jobs.

Request

```
GET http://localhost:8889/report/schedule/list
```

```
Response
```

```
[
    "jobName": "monthlySalesReportJo",
    "email": "emiraktas143@gmail.com",
    "nextFireTime": "Mon Jun 24 17:15:47 UTC 2024",
    "criteria": {
        "minTotalPrice": 1,
        "maxTotalPrice": 1000000,
        "hasCampaign": null,
        "campaignId": null,
        "paymentMethod": null,
        "includeCanceled": null,
        "lookbackPeriodInDays": 1000
        }
    }
}
```

▼ Delete Job Cancels a specified reporting job.

Request

DELETE http://localhost:8889/report/schedule/cancel/{jobName}

Response

Job cancelled successfully: {jobName}