# HR+Inventory Management System CLI - User Guide

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## Introduction

The Inventory Management System CLI is a command-line interface for managing inventory. It allows users to perform various operations such as adding or removing items and products, moving items between storage and shelves, reporting defective items, and managing discounts.

The MainPresentation class is the entry point of the management system. It provides a console interface for interacting with the system. The system supports 2 types of users: Regular Employees and HR managers. Here is how to use the system:

## Starting the Program

1. Open your terminal (Command Prompt, PowerShell, or any terminal emulator).
2. Navigate to the directory where the JAR file is located.
3. Run the following command to start the program:

   ```
   Copy code
   java -jar adss2024_v03.jar
   ```

## Main Menu

Once the program starts, you will see the following menu options:

1. Login
2. Exit
3. Load Testing Data (The option will appear only once and will disappear after use

Loading Testing Data

Select option 3 to load testing data. This option is available only once.

Once the data is loaded, you'll see the message "Loaded data successfully"

   After loading the data this option will no longer appear in the menu.

   Logging In

1)    Login as employee or HR manager:

•     Select option 1 to log in

•     Enter you employee Id and password when prompted

- If the login is successful, you'll see a message confirming the login and Proceed to the appropriate menu based on your role (regular / HR) If the login fails, an error message will be displayed.

**Regular employee menu**

1. HR Management
2. Inventory Management
3. Logout

Once chosen 2, you'll see the Inventory Employee Menu as described in page 7.

Once chosen 1, you'll see the following menu:

1.    Logout

2.    Submit Availability

3.    View Work Schedule

4.    Change Password

5.    Exit

**1.    Logout**

- Select option 1 to log out

- You'll be logged out and returned to main menu

**2.    Submit Availability**

- Select option 2 to submit your availability for the upcoming week

- Enter the data in yyyymmdd format

- For each day of the week. describe your availability for morning/ evening shifts by entering true or false

- Your availability will be updated .and a confirmation message will be displayed

**3. View Work Schedule**

- Select option 3 to view your work schedule for a specific date.

- Enter the date in yyyyMMdd format

- The workSchedule for the week will be displayed

**4.Change Password**

• Select option 4 to change your password

• Enter your old password and new password

• A confirmation message will be displayed If the password changed successfully

**Manager menu**

Once logged in as a manager. You'll see the following menu options:

1. HR Management.
2. Inventory Management.
3. Logout.

Once chosen 2, you'll see the Inventory Main Menu as described in page 7.

Once chosen 1, you'll see the following menu:

1. Logout

2. Edit employees

3. Get Info About Existing Availability

4. Manage Roles

5. Post work Schedule

6. Set Weekly Role Constraints

7. Restrict Employee Access

8. Reinstate Employee Access

9. Get All Employees in Branch

10. Restore weekly Role Constraints to Default

11. Get Weekly Role Constraints

12. ChangePassword

13. Exit

**Logout**

1. Select option 1 to log out
2. You'll be logged out and returned to the main menu.

**Edit Employees**

1. Select option 2 to edit employees
2. You'll see the following options
• Get Information about Employees
• Add New Employee
• Update Employee's Information
3. Get information about employees – Enter the employee ID to retrieve the employee's information
4. Add New Employee – Enter the details for new employee including name, password, id, branch id, terms of employment, start date, bank details , and roles
5. Update Employees Information – Enter the employees id and the updated details.

**Get Info About Existing Availability**

1. Select option 3 to get information about existing availability
2. Enter the branch Id and date
3. The availability info for each day and shift will be displayed

**Manage Roles**

1. Select option 4 to manage roles
2. You'll will see the following options
      • Assign Role to EmployeeRe
      • move Role from Employee
3. Assign role to employee – Enter the employee ID and role to assign the role to the employee
4. Remove role from employee – Enter the employee ID and role to remove the role from the employee.

**Post Work Schedule**

1. Select option '5' to post the work schedule for a specific branch and date
2. Enter the branch ID and date yyyymmdd
3. Enter the employee ids for each shift for each day of the week
4. A confirmation message will be displayed if the work schedule is posted

**Set Weekly Role Constraints**

1. Select option 6 to set weekly role constraints for specific branch and date
2. Enter the branch ID and date (yyyymmdd)
3. Enter the roles for each shift for each day of the week
4. A confirmation message will be displayed if the costraints are set successfully

**Restrict Employee Access**

1. Select option 7 to restrict an employee's access
2. Enter the employee ID to restrict access
3. A confirmation message will be displayed

**Restrict Employee Access**

1. Select option 8 to reinstate an employee's access
2. Enter the employee ID to reinstate access
3. A confirmation message will be displayed

**Get All Employees In branch**

1. Select option 9 to get all employees in a specific branch
2. Enter the branch ID.
3. The information for all employees in the branch will be displayed.

**Restore weekly role constraints to default**

1. Select option 10 to restore weekly role constraints to their default values for a specific branch and date
2. Enter the branch ID and date ( yyyymmdd)
3. A confirmation message will be displayed

**Get weekly Role Constraints**

1. Select 11 to retrieve the weekly role constraints for a specific branch and date
2. Enter the branch ID and date (yyyymmdd format)
3. The role constraints for each day and shift will be displayed

**Change Password**

1. Select option 12 to change your password
2. Enter your old password and new password
3. A confirmation message will be displayed If the password changed successfully

**Exit**

1. Select option 13 to exit the application
2. You'll see a goodbye message, and the application will terminate

**Inventory Employee Menu**

Inventory Management System
1. Products
2. Items
3. Reports.
0. Back to last menu.
Enter your choice:


**Inventory Main Menu**

Inventory Management System
1. Products
2. Items
3. Discounts
4. Orders
5. Reports
6. Delete All Data
0. Exit
Enter your choice:


**Products Menu**
Products Management
1. Add Product
2. Remove Product
3. Get All Products
0. Back to Main Menu
Enter your choice:


**Item Menu**
Item Management
1. Add Item
2. Remove Item
3. Move Item to Shelf
4. Move Item to Storage
5. Report Defective Item
6. Get All Items from Product Makat
0. Back to Main Menu
Enter your choice:


**Discount Menu**
Discount Management
1. Add Discount from Supplier
2. Add Discount from Store
3. Remove Discount from Supplier
4. Remove Discount from Store
5. Get Current Discounts
0. Back to Main Menu
Enter your choice:


**Order Menu**
Order Management
1. Add Order
2. Update Order

```
3. Delete Order
4. Get All Orders
0. Back to Main Menu
Enter your choice:
```

**Report Menu**
```
Order Management
1. Make Report
0. Back to Main Menu
Enter your choice:
```

## Menu Options and Steps

### 1. Add Item

Add an individual item to the inventory.

**Steps:**

- Enter the product code (makat).
- Enter the categories (comma-separated).
- Enter the serial number (sn).
- Enter the expiration date (yyyy-MM-dd).
- Indicate if the item is in storage (true/false).

### 2. Remove Item

Remove an individual item from the inventory.

**Steps:**

- Enter the product code (makat).
- Enter the serial number (sn).

### 3. Add Product

Add a new product to the inventory.

**Steps:**

- Enter the product code (makat).
- Enter the minimal amount.
- Enter the product name.
- Enter the location.
- Enter the manufacturer.
- Enter the cost price.
- Enter the current price.
- Enter the categories (comma-separated).
- Enter the popularity.

## 4. Remove Product

Remove a product from the inventory.

**Steps:**

- Enter the product code (makat).
- Enter the categories (comma-separated).

## 5. Move Item to Shelf

Move an item from storage to the shelf.

**Steps:**

- Enter the product code (makat).
- Enter the quantity to move.

## 6. Move Item to Storage

Move an item from the shelf to storage.

**Steps:**

- Enter the product code (makat).
- Enter the quantity to move.

## 7. Report Defective Item

Report an item as defective.

**Steps:**

- Enter the product code (makat).
- Enter the quantity that is defective.

## 8. Make Report

Generate a report based on specified categories or product codes.

**Steps:**

- Choose input type:
  -
    1. Provide product makats
  -
    2. Provide category names
  -
    3. Provide both product makats and category names
- Enter the categories (comma-separated) or product codes (comma-separated).

## 9. Add Discount from Supplier

Apply a discount provided by the supplier to specified categories or products.

**Steps:**

- Choose input type:
    1. Provide product makats

    2. Provide category names

    3. Provide both product makats and category names
- Enter the categories or product codes.
- Enter the discount percentage.

## 10. Add Discount from Store

Apply a discount provided by the store to specified categories or products.

**Steps:**

- Choose input type:
    1. Provide product makats

    2. Provide category names

          3. Provide both product makats and category names
- Enter the categories or product codes.
- Enter the discount percentage.

## 11. Remove Discount from Supplier

Remove a supplier-provided discount from specified categories or products.

**Steps:**

- Enter the order ID.

## 12. Remove Discount from Store

Remove a store-provided discount from specified categories or products.

**Steps:**

- Enter the order ID.

## 13. Get All Products

Retrieve all products in the system.

**Steps:**

- The system will automatically display all products.

## 14. Get All Items

Retrieve all items associated with a specific product makat.

**Steps:**

- Enter the product makat.

## 15. Add Order

Add a new order to the system.

**Steps:**

- Enter the product makat.
- Enter the amount.

- Enter the day of the month.

## 16. Update Order

Update an existing order in the system.

**Steps:**

- Enter the order ID.
- Enter the new amount.

## 17. Delete Order

Delete an existing order from the system.

**Steps:**

- Enter the order ID.

## 18. Get All Orders

Retrieve all orders in the system.

**Steps:**

- The system will automatically display all orders.

## 0. Exit

Exit the program.

## Helper Functions

To enhance user input handling, the following helper functions are used:

- `promptInt(String prompt)`: Prompt the user for an integer input.
- `promptDouble(String prompt)`: Prompt the user for a double input.
- `promptBoolean(String prompt)`: Prompt the user for a boolean input.
- `promptDate(String prompt)`: Prompt the user for a date input in `yyyy-MM-dd` format.

## Load Initial Data

The system will automatically load initial data as specified here:

**Products Table**

| Makat | MinimalAmount | Name | Place | Manufacturer | CostPrice | CurrentPrice | Categories | Popularity |
|---|---|---|---|---|---|---|---|---|
| 1 | 10 | Smartphone | Aisle 1 | TechCorp | 500 | 629.1 | Electronics, Devices, Gadgets | Medium |
| 2 | 5 | Laptop | Aisle 2 | CompTech | 1000 | 1104.15 | Electronics, Devices, Gadgets | High |
| 3 | 20 | Apple | Aisle 3 | FreshFarms | 1 | 1.35 | Food, Groceries, Perishables | Low |
| 4 | 15 | Jeans | Aisle 4 | FashionCo | 30 | 42.5 | Clothing, Apparel, Wearables | Medium |
| 5 | 10 | T-Shirt | Aisle 4 | FashionCo | 10 | 16 | Clothing, Apparel, Wearables | High |

**Items Table**

| SerialNumber | Makat | ExpireDate | InStorage | Defective |
|---|---|---|---|---|
| 1001 | 1 | 2024-12-31 | true | false |
| 1002 | 1 | 2024-12-31 | true | false |
| 1003 | 2 | 2025-01-31 | true | false |
| 1004 | 3 | 2024-06-30 | true | false |
| 1005 | 4 | 2025-12-31 | true | false |
| 1006 | 5 | 2025-06-30 | true | false |
| 1007 | 5 | 2025-06-30 | true | false |

**Orders Table**

| OrderID | Makat | Amount | DayOfMonth | Filled |
|---|---|---|---|---|
| 1 | 1 | 5 | 15 | false |
| 2 | 2 | 2 | 20 | false |
| 3 | 3 | 10 | 25 | false |

| OrderID | Makat | Amount | DayOfMonth | Filled |
|---------|-------|--------|------------|--------|
| 4 | 4 | 8 | 10 | false |

**Discounts Table**

| DiscountID | Categories | ProductMakats | Percentage | FromSupplier |
|------------|-----------|---------------|------------|--------------|
| 1 | null | [1, 2, 3] | 10 | true |
| 2 | [Electronics, Devices, Gadgets], [Clothing, Apparel, Wearables] | null | 15 | false |
| 3 | null | [5] | 20 | false |

Hr manager:

Id: 1, Password: hrManager3

**Available testing data:**

Employees:

40 employees, 10 for each branch 0,1,2,3.

Branch 0: ID 2 – 11.

Branch 1: ID 12-21.

Branch 2: ID 22-31.

Branch 3: ID 32-41.

Password: abc+{employeeID}.   i.e. for employee with ID=3, "abc3".

Branch 0:

Employees are available for **random** shifts for next week.

Each employee can work any role (Cashier, Storekeeper, Manager).

Branch 1:

Employees are available for **all** shifts for next week.

Each employee can work any role (Cashier, Storekeeper, Manager).

Branch 2:

Employees did not submit availability for next week.

Each employee can work any role (Cashier, Storekeeper, Manager).

Branch 3:

Employees are available for **all** shifts for next week.

ID 32-34 have role Cashier.

ID 35-36 employees have the role of Storekeeper.

ID 37-38 employees have roles Cashier, Storekeeper.

ID 39-41 employe can work any role (Cashier, Storekeeper, Manager).