

Amazon MWS

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Introduction:

Amazon Marketplace Web Service (MWS) is an integrated web service API (application programmable interfaces) that help sellers on amazon to programmatically exchange data on a lot of things such as listings, orders, payments, reports and more. The service helps sellers increase their selling efficiency and improve response time to customers for a better customer service.

Amazon Marketplace Web Service (MWS) عبارة عن واجهة برمجة تطبيقات متكاملة لخدمة الويب (واجهات قابلة للبرمجة للتطبيق) تساعد البائعين في أمازون على تبادل البيانات برمجياً حول الكثير من الأشياء مثل القوائم والطلبات والمدفوعات والتقارير والمزيد. تساعد الخدمة البائعين على زيادة كفاءتهم وتحسين وقت الاستجابة للعملاء من أجل خدمة عملاء أفضل.

Amazon is one of the world's biggest platforms. Millions of Sellers sell their own products on amazon every day. With so many different aspects involved in daily operations like Refunds, Shipping, Prices, Advertisement, Reviews, Ratings, etc, The seller generates so much data in one day and it makes it impossible for the sellers to handle the millions of customers on their own that is why they rely on software applications and tools (MWS)

Amazon هي واحدة من أكبر المنصات في العالم. يبيع ملايين البائعين منتجاتهم الخاصة على موقع أمازون كل يوم. فيها عوامل كثيرة مختلفة تتضمن العمليات اليومية مثل المبالغ المستردة والشحن والأسعار والإعلان والمراجعات والتقييمات وما إلى ذلك ، يقوم البائع بإنشاء الكثير من البيانات في يوم واحد ويجعل من المستحيل على البائعين التعامل مع ملايين العملاء بمفردهم لهذا السبب يعتمدون على تطبيقات وأدوات البرمجيات (MWS)

There are not any fees for the service but you need to have an eligible Amazon account:

- 1-Professional Amazon selling account
- 2-Amazon Payments
- 3-Amazon Fresh
- 4-Amazon Business
- 5-Amazon Prime Now

In Amazon (MWS) you can build your own applications for your own, and you can also build applications for other sellers on the platform to help them manage their businesses. You can create wide range of applications from looking up specific products for sale, downloading orders for fulfillment, confirm shipments, scheduling and receiving reports. All of these API's are accessible by using a web service interface.

The service provides useful features such as:

Inventory management : Performing batch uploads of inventory, adding products, and checking inventory.

Order management : Downloading order information and payment data.

Reports management : Requesting different types of reports and getting information about them and then print them.

Checking status of inbound shipments : You can check to see if your shipment has reached a fulfillment center and if so, whether the shipment has been processed.

Tracking and managing outbound shipment requests : When the orders have left the Amazon fulfillment center, you can track the shipments to keep your customer aware about the delivery time roughly.

Problem Statement:

Sellers online usually have a hard time doing their business manually on their own without an integrated web service API, MWS helps sellers to increase their efficiency and reduce their labor requirements and focus more on customers. And letting the seller focus more on improving their business.

System Capabilities:

- 1- The ability of creating endless API's that helps other sellers or your own with your needs
- 2- The ability to transform the traditional way of handling paper work and other time consuming tasks which are outdated and expensive.
- 3- The ability to allow third party developers to access your own seller account via MWS
- 4- The ability to access account on multiple platforms

Business benefits:

Amazon Market web service is very beneficial, it is used across whole sales to reduce overhead costs and save hours of time. It is used to automate most of manual processes and to streamline workflows. The service increases selling efficiency and reduce response time to customers.

The main objective:

The main objective of (MWS) is offering sellers a simple, easy and reliable service for their applications that helps with increasing selling efficiency, reducing labor requirement and improve response time to customers.

The major components:

- 1- Order details
- 2- Inventory details
- 3- Recommendations
- 4- Marketplace Participations

5- Financial Events

Iterations and functions:

- Planning the project (core process 2)

The functions are:

Determining major components that are needed.

Defining iterations and assigning each function to one.

- Discovering and understanding details (core process 3)

The functions are:

Fact finding to help better understand the requirements.

Developing a preliminary list of use cases and use case diagram.

- Design activities and system components (core process 4)

The functions are:

Design the database structure (schema).

Design subsystem architectural

Responsibilities	Responsible team members
Task 1 & 2	Khaled AlDhurgham
Task 3	Naif AlZahrani
Task 4	Abdullah AlNasser
Task 5	Abdullah AlJaloud, Faisal AlShaqha

1-functional requirements:

- 1.1-The system shall allow the non-Registered-user to sign up.
- 1.2-The system shall allow the Registered -user to make payment.
- 1.3-The system shall allow the Registered-user to search for items.
- 1.4- The system shall allow the Registered-user to view details for the items.
- 1.5- The system shall allow the Registered-user to choose items.
- 1.6- The system shall allow the Registered-user to buy items.
- 1.7-The system shall allow the Registered-user to add items to buy later list.
- 1.8-The system shall allow the Registered-user to log-in.

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- 1.9- The system shall allow the inventory manger perform batch uploads of inventory.
 - 1.10- The system shall allow the inventory manger to add products.
 - 1.11- The system shall allow the inventory manger to check the inventory.
 - 1.12- The system shall allow the inventory manger to examine pricing information management tasks.
 - 1.13- The system shall allow the report manger to request a reports.
 - 1.14- The system shall allow the report manger to query the states of the reports.
 - 1.15- The system shall allow the report manger to download the reports.
 - 1.16- The system shall allow the order manger to download order information.
 - 1.17- The system shall allow the order manger to obtain payment data.
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1.18- The system shall allow the order manger to acknowledge order.

1.19- The system shall allow the order manger to schedule the reports.

2- Non-Functional Requirements

2.1 Performance

The system shall process 95% of transaction in less than 1 second.

2.2 Reliability

The system shall have 95% reliability for a month.

2.3 Availability

The system shall be available 97% of the time during a month.

2.4 Security the database must be located in a special secure server and must be backups to other servers periodically every 7 days.

2.5 Maintainability

System must have 95% maintainability for 24 hours.

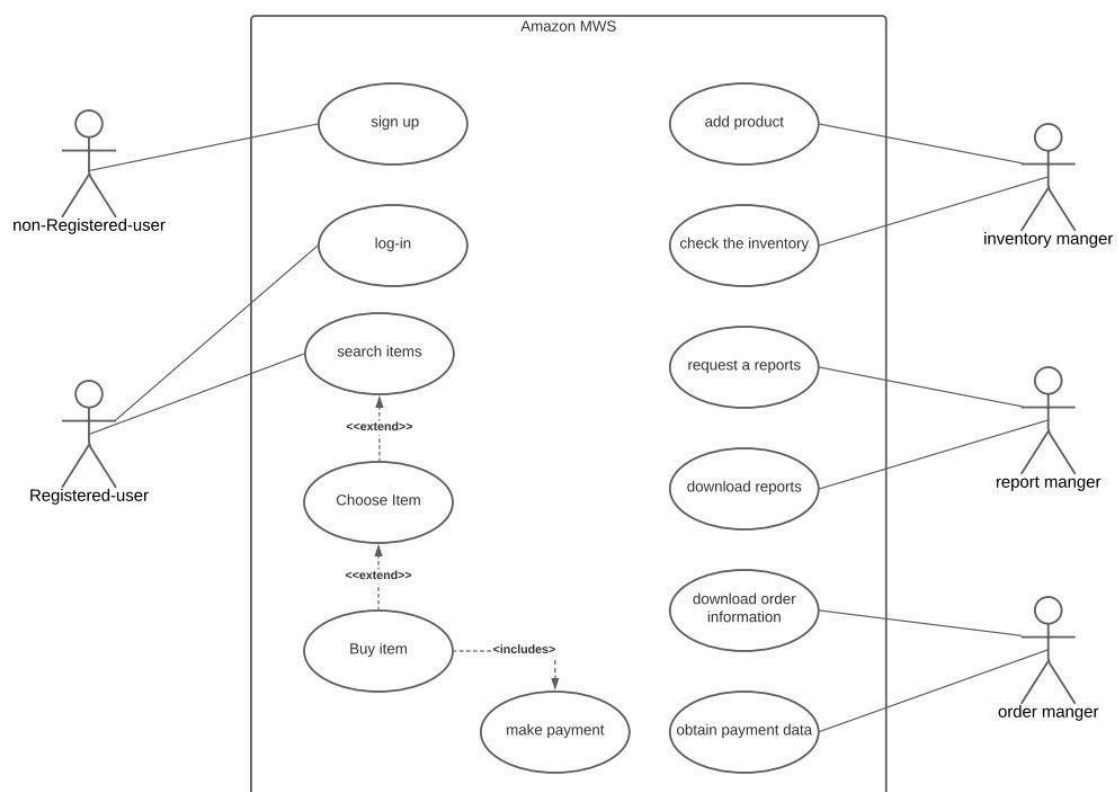
2.6 Portability

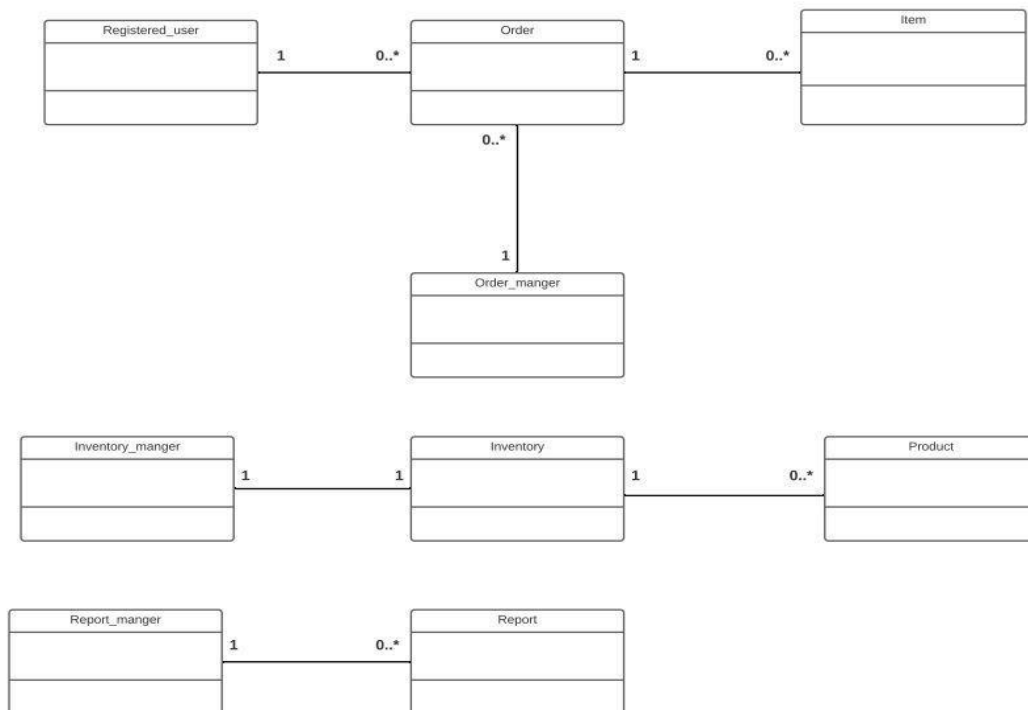
The system shall be easy to port to other platforms in the future (Android, windows phone).

Use case	Description
Sign up	This use case allows the non-registered user to sign up by enter his info (email, password, phone number, gender, location).
Log-in	This use case allows the registered user and admin use to log-in by enter his email and password.
Search item(s)	This use case allows the registered user and admin to search for item(s) by name of item(s).
Choose Item	This use case allows the registered user and admin to choose the item(s) and selected from the list.
Buy item	This use case allows the registered user and admin to purchase the item(s) by enter his/her credit card.
add product	This use case allows the inventory manger and admin to add product and inclusion in the list.
check the inventory	This use case allows the inventory manger and admin to check the store of the system.
Request a report	This use case allows the report manger and admin to request reports by the employees and save them in the system.
download reports	This use case allows the report manger and admin to download reports by download them from the website to his server.

Download order information	This use case allows the order manger and admin to download the information to his server.
obtain payment data	This use case allows the order manger and admin to obtain payment data by the registered users.

Object classes	Attributes
registered user	ID, name, password, Subscription, contact, notice, comment, report
inventory manger	ID, name, password, Adding, deleting, editing, searching, supplying, checking, reporting, organizing
report manger	ID, name, password, Request, download, resend, Approval , Refusal
order manger	ID, name, password, Download, payment, organize, demand
Admin	ID, name, password

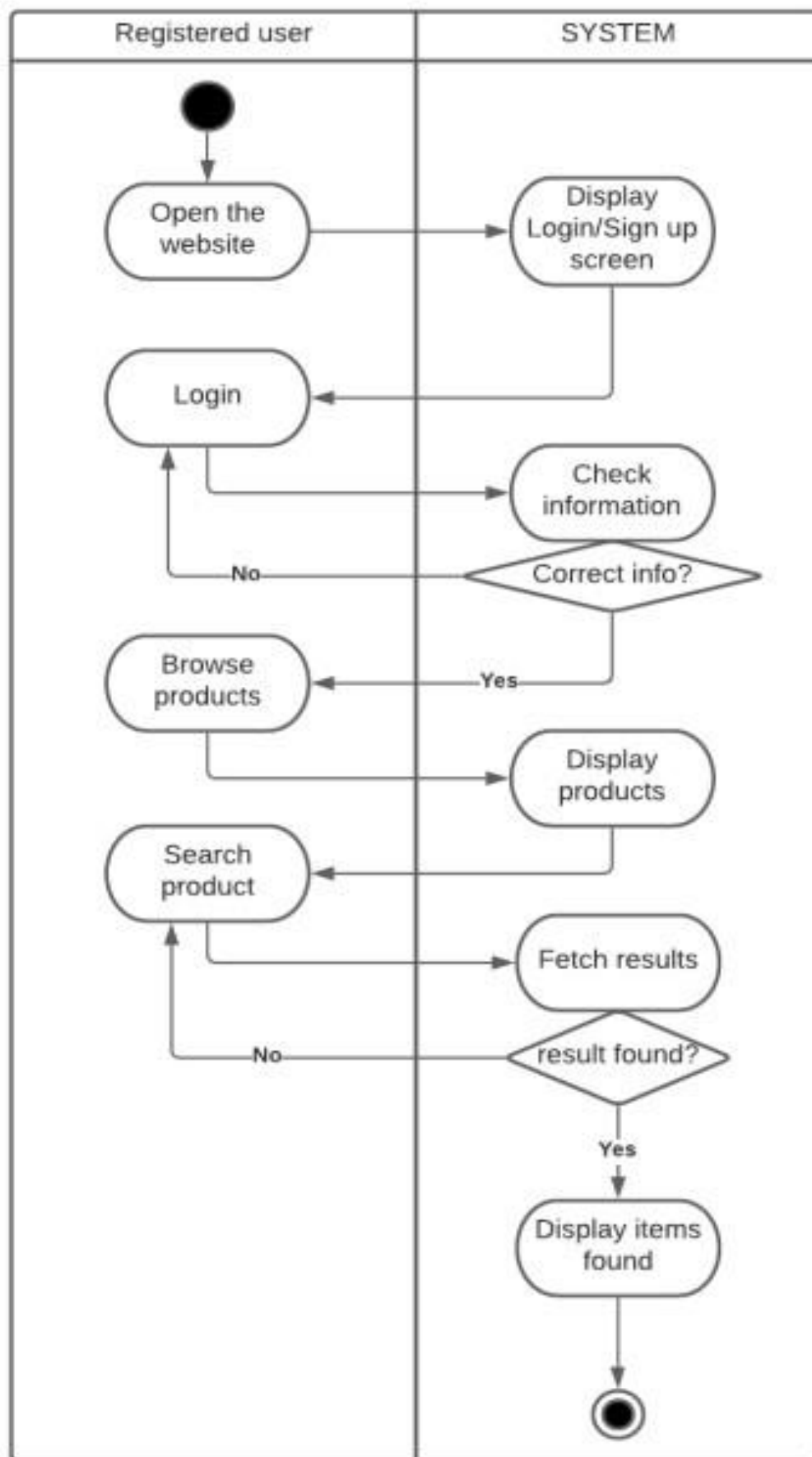




User Case Name	Search Item
Use Case Scenario	User search for items available on the system.
Use Case Trigger	Registered user's access to search products.
Brief Description	The system shall allow the Registered user to search for items.
Primary Actor	Registered User

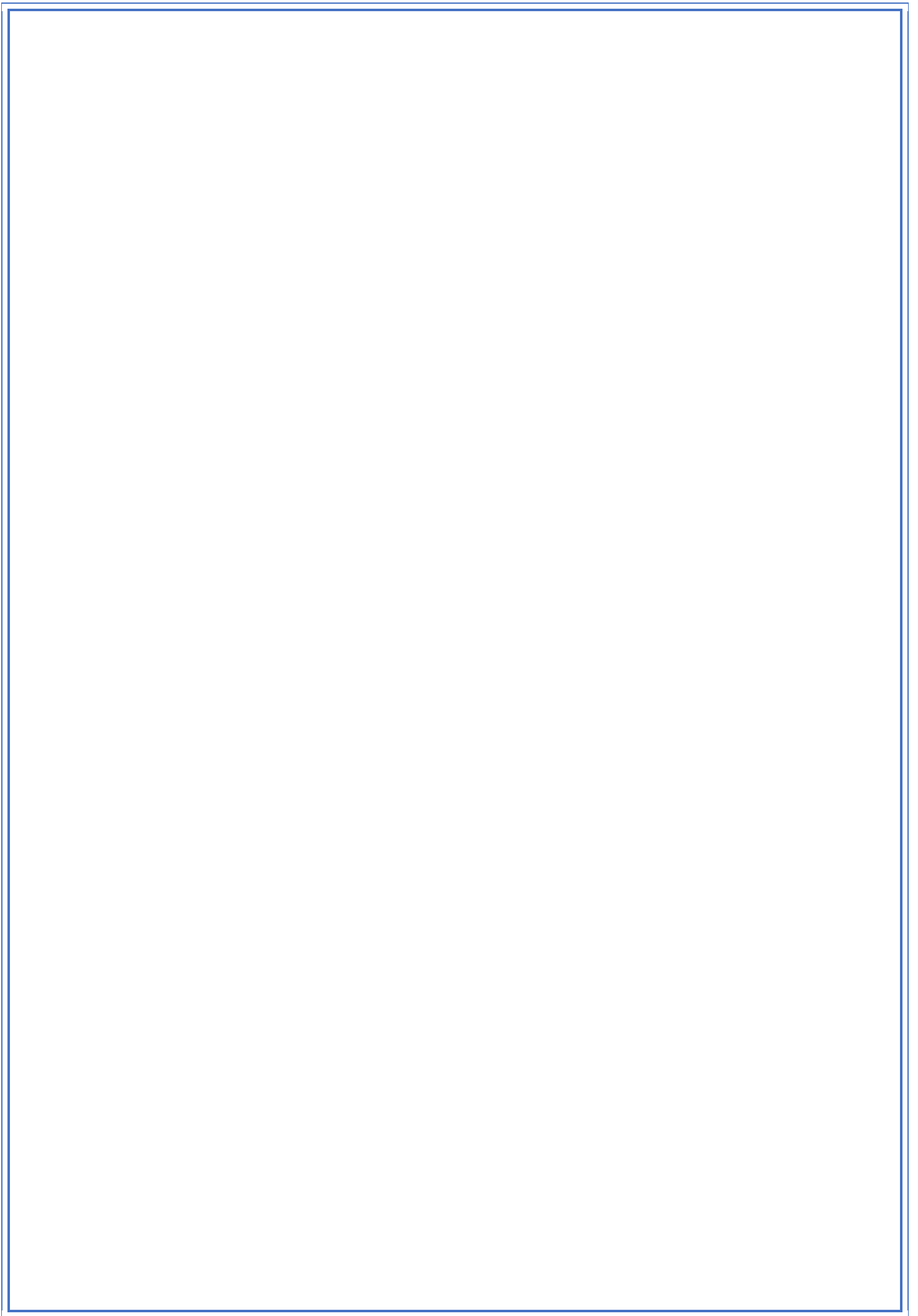
Related Use Case	Choose items	
Pre-condition	User shall enter search query in search bar.	
Post-condition	System shall display search results	
Flow of Activities	User	System
	<ul style="list-style-type: none"> User enters keywords in search bar. 	<ul style="list-style-type: none"> System display related items to users.
	<ul style="list-style-type: none"> User select item to view. 	<ul style="list-style-type: none"> System shall open item details.

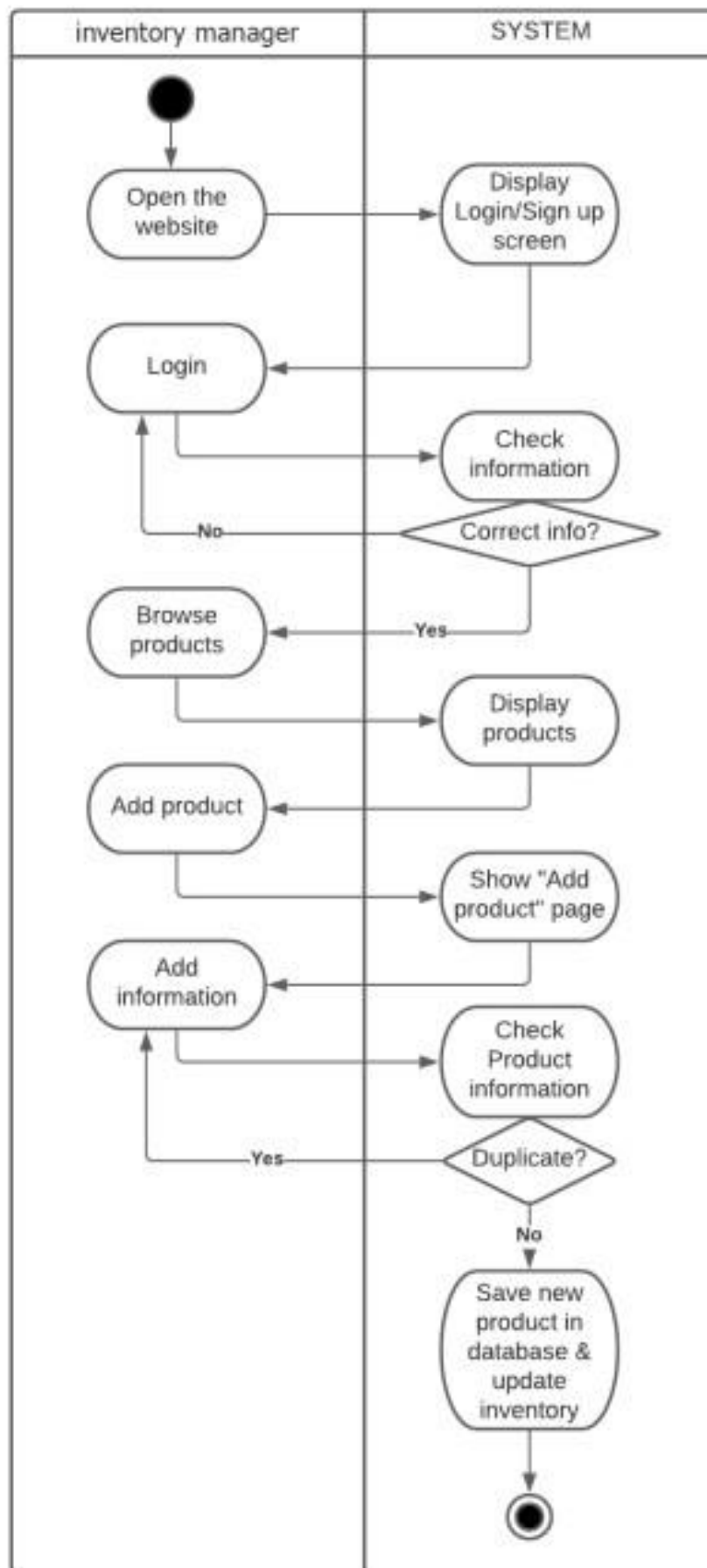
Exception	No results found for searched item. Wrong login information.
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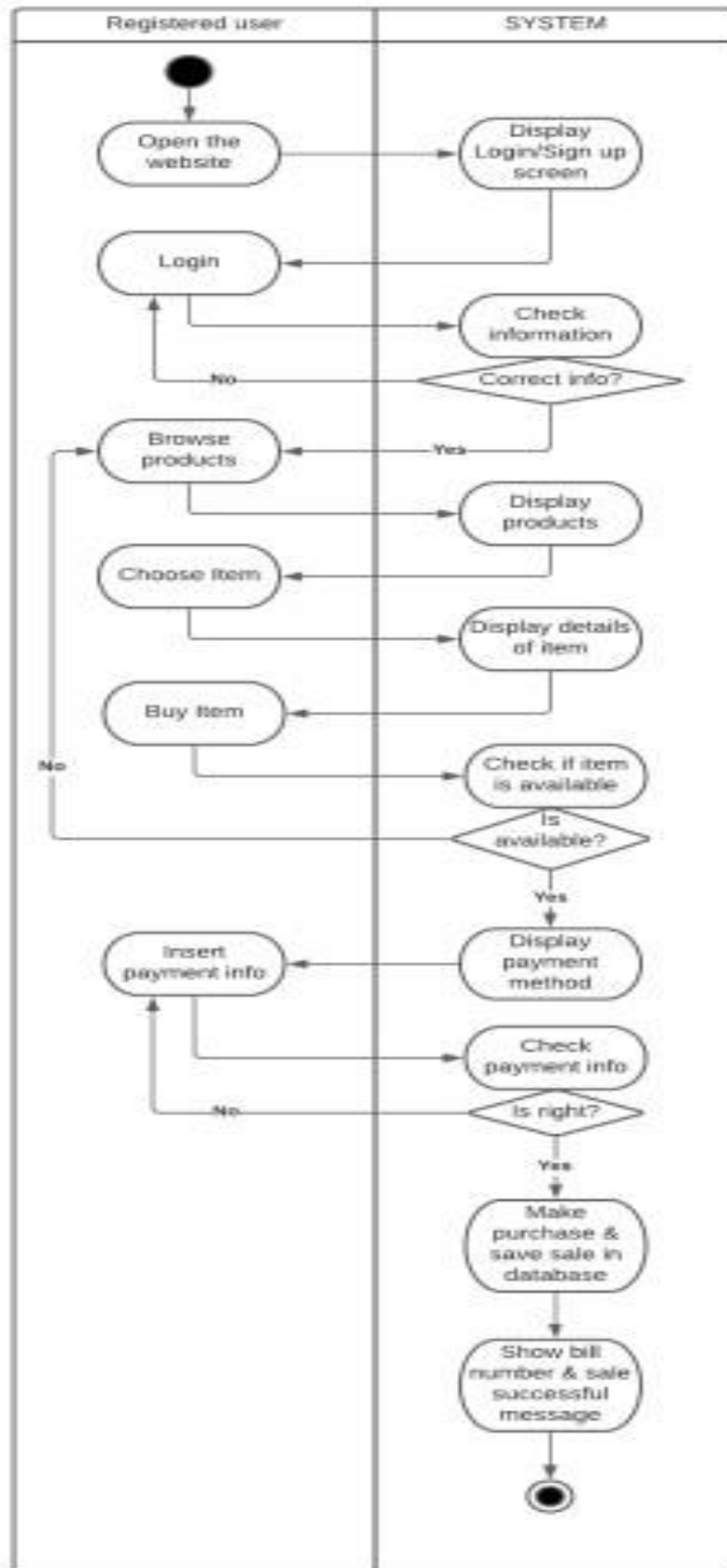
User Case Name	Add Product	
Use Case Scenario	Inventory Manager adds new products in the inventory.	
Use Case Trigger	Update inventory	
Brief Description	An inventory manager wants to add new products to the inventory. System shall allow user to add/remove/update inventory and view the changes.	
Primary Actor	Inventory Manager	
Related Use Case	Login check the inventory.	
Pre-condition	User must access to the system.	
Post-condition	System shall sync the changes made by inventory manager.	
Flow of Activities	User	System
	<ul style="list-style-type: none"> Inventory manager adds products to the system. 	<ul style="list-style-type: none"> System shall allow the inventory manager to add products.
	<ul style="list-style-type: none"> Inventory manager clicks on inventory to view added products. 	<ul style="list-style-type: none"> The system shall allow the inventory manger to check the inventory.

Exception	Server failed to add products. Wrong login information.
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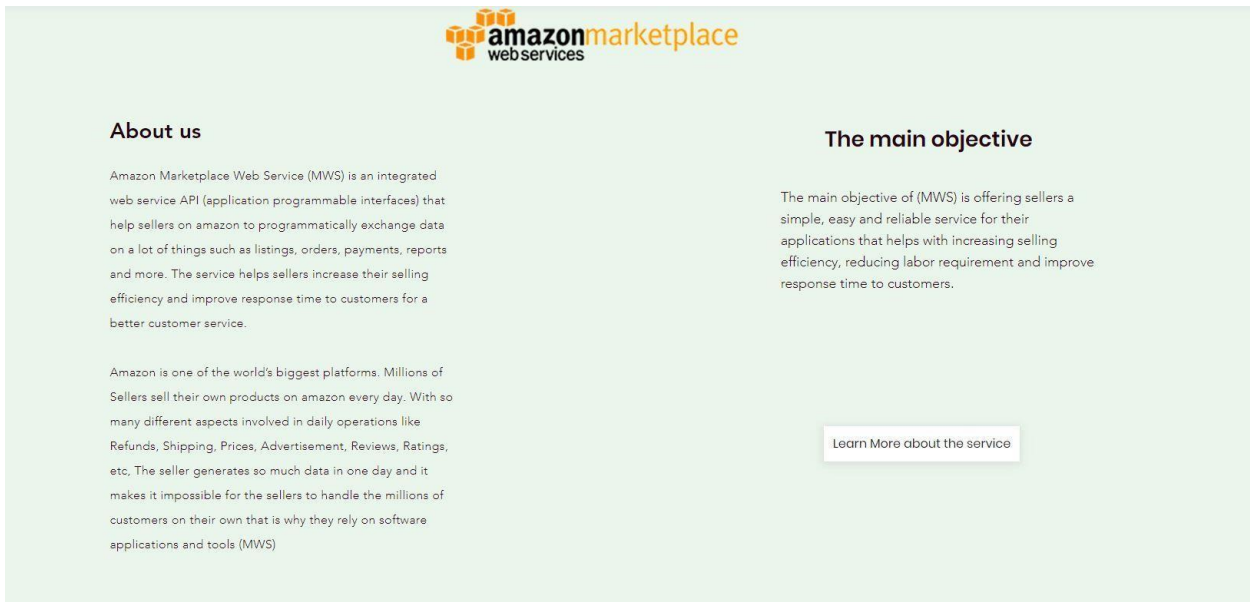


User Case Name	Buy Item	
Use Case Scenario	User wants to buy items.	
Use Case Trigger	Allow buying items	
Brief Description	Registered user must be able to view details for the items. The system will allow the Registered user to choose items and to buy them. User can proceed to payment after selecting items.	
Primary Actor	Registered User	
Related Use Case	Choose item, Make payment.	
Pre-condition	User must choose the items.	
Post-condition	User must complete the payment process.	
Flow of Activities	Registered User	System
	<ul style="list-style-type: none"> Users select items to purchase. 	<ul style="list-style-type: none"> System display available items
	<ul style="list-style-type: none"> User clicks adds them to buy later list. Users proceed to checkout. Users select payment method. 	<ul style="list-style-type: none"> System save user's buy later list. System display payment methods. System verify user's details.
Exception	Item unavailable. Wrong login information.	



Screenshots of the website:

<https://khaleds67.editorx.io/mysite-1>



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Sign up

First Name

Last Name

Email

Phone

Submit

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Sign in

User name

Pass-word

if you dont have an
account sign up here

Log in

[Home](#)[Sign in](#)[Sign Up](#)[Services](#)[Learn more](#)[Contact](#)

Use Cases

[Searching for items](#)[Buying Items](#)[Adding products](#)

System Capabilities:

The ability of creating endless API's that helps other sellers or your own with your needs.

The ability to transform the traditional way of handling paper work and other time consuming tasks which are outdated and expensive.

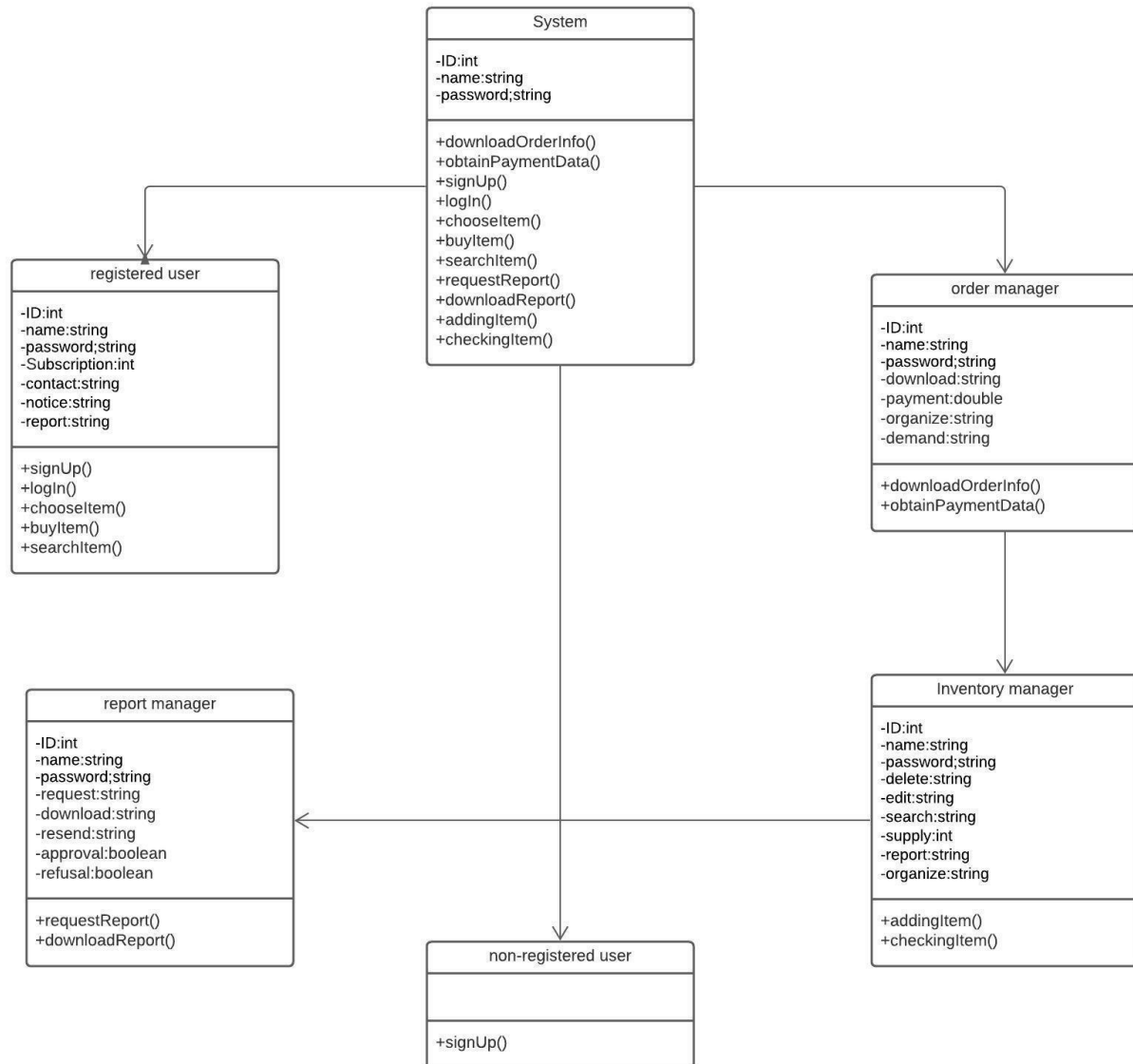
The ability to allow third party developers to access your own seller account via MWS.

The ability to access account on multiple platforms.

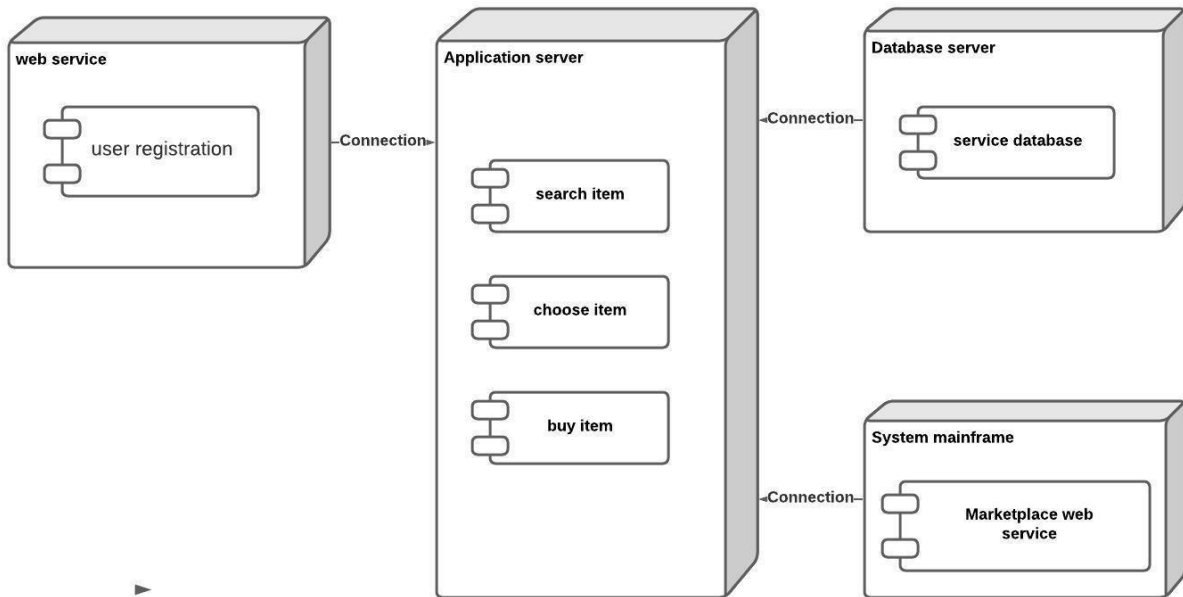
Business benefits:

Amazon Market web service is very beneficial, it is used across whole sales to reduce overhead costs and save hours of time. It is used to automate most of manual processes and to streamline workflows. The service increases selling efficiency and reduce response time to customers.

Class Diagram:



Architectural diagram:



References:

Editorx

Lucidcharts

Course slides (IT281)

Amazon MWS developers website