

CSE2101 - Software Engineering I

Semester Project

Guyana Defence Force Inventory Management System GDF - IMS

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Project Plan

Project Plan



This initiative intends to:

- Solve a problem that the Guyana Defence Force Stocks Department is currently experiencing.
- Improve The defense force's record-keeping practices by keeping records of materials in inventory.
- Streamline the procedure by doing away with the paper-based filing method and implementing a computerized inventory management system



Software Requirements Specification

Software Requirements Specification



The inventory management system for the GDF will be able to:

- Create an admin account and a client account.
- Show the amount of an item in stock
- Make records of the item being requested.
- Allows for the search of specific items.
- Allow the admin to edit the inventory list.
- See the current item count.
- Notify the admin when it is time to restock.

System Non-Functional Requirements

Performance Requirements

In order to maintain an accurate count on the amount of items in stock, the system will be able to update when a order has been placed and when restock has been made.

Safety Requirements

Only the admin account has the authority to edit the inventory numbers if an error has taken place, keeping the information being presented to the clients accurate.

Security Requirements

All records can only be seen by the admin who can produce the inventory balance sheet and stock card. The admin can also restore and delete the inventory records.

Software Quality Attributes

The systems records will be able to back up the inventory list and items in stock by show of records of requests for items and of restocking of items.

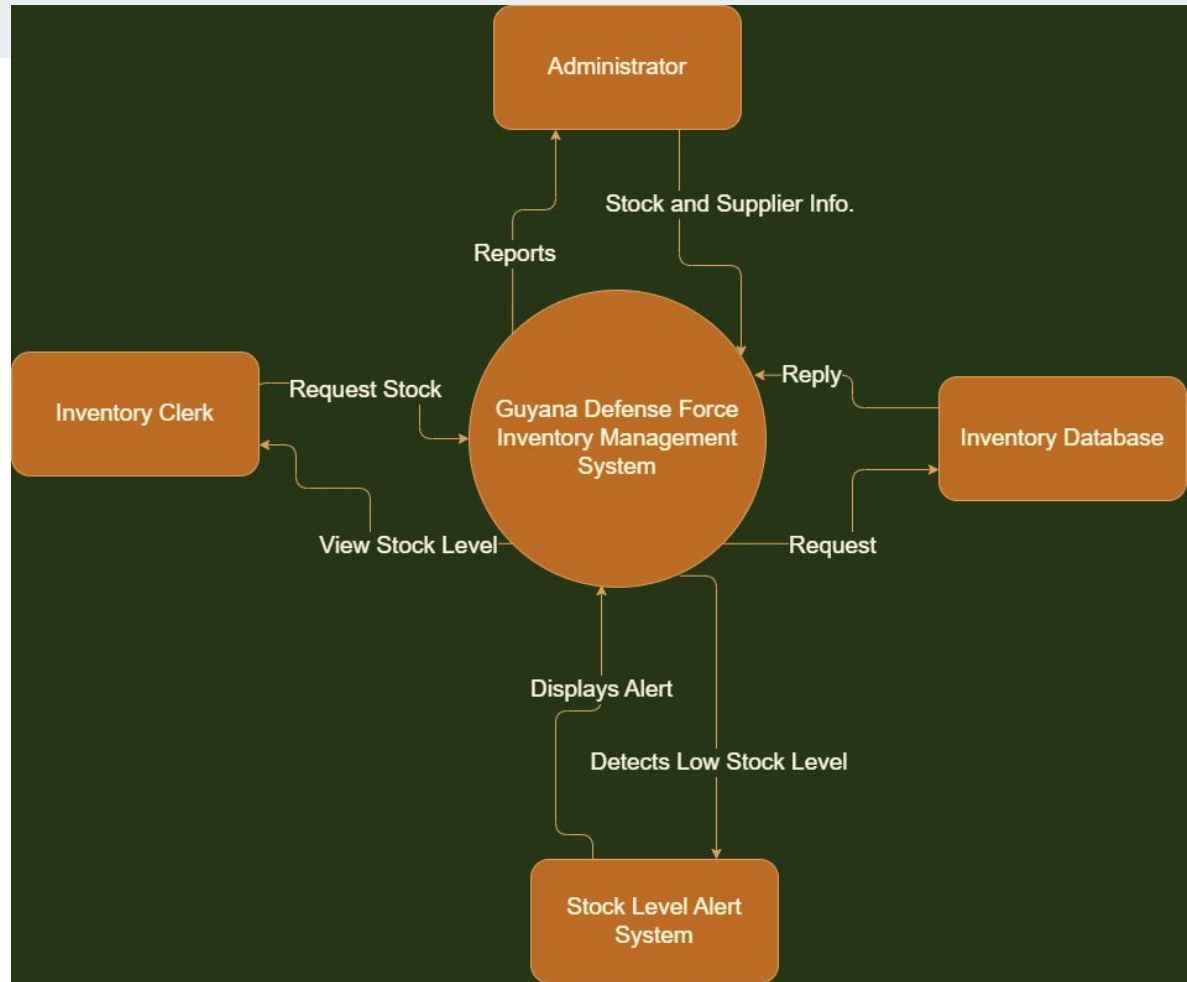


System Design

- Context, Use Case and Class diagrams
- MVC Architecture

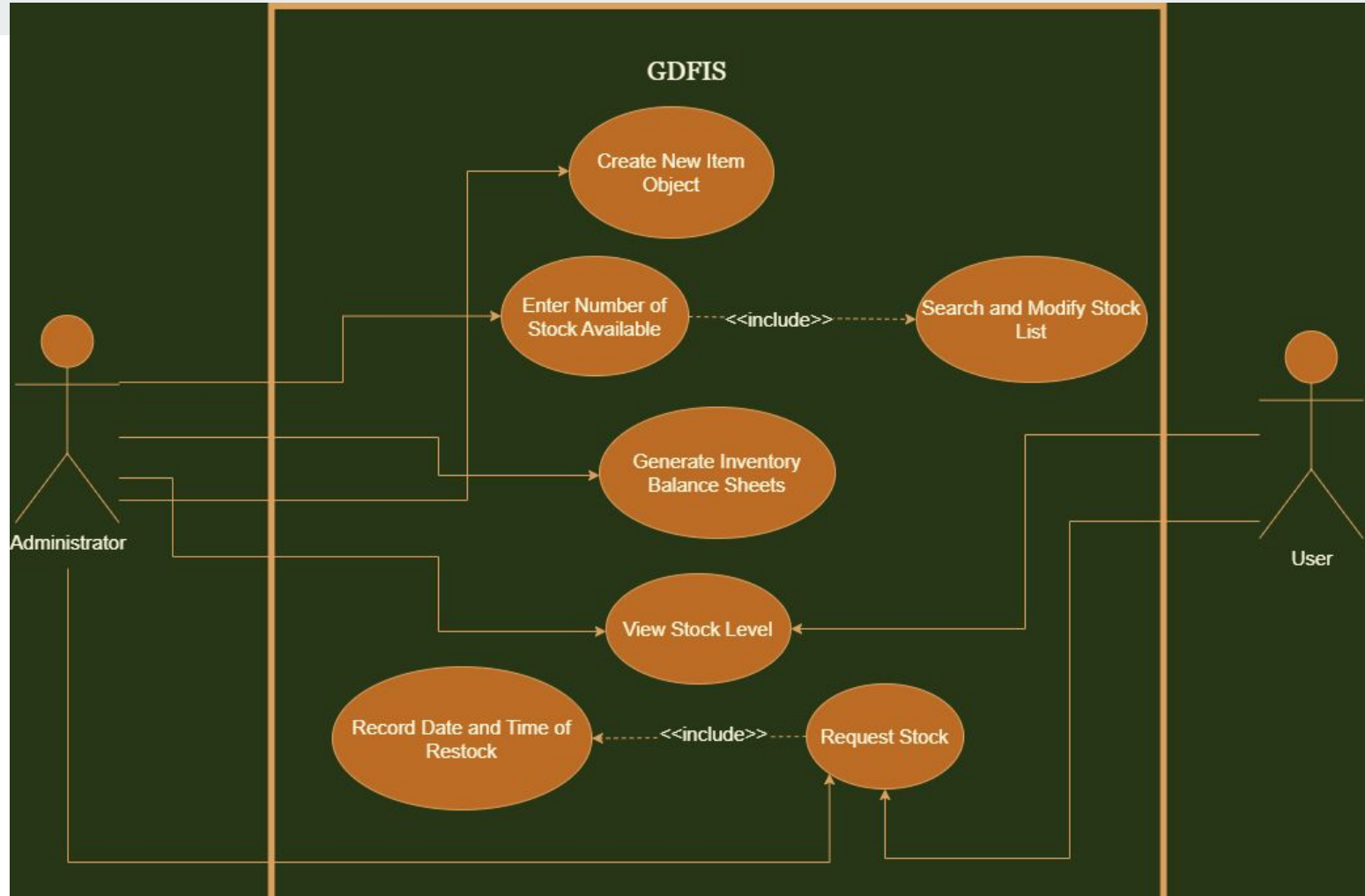
Context Diagram

GDF-IMS Context Diagram - This diagram shows the operational context of the system and what lies outside the system boundaries.



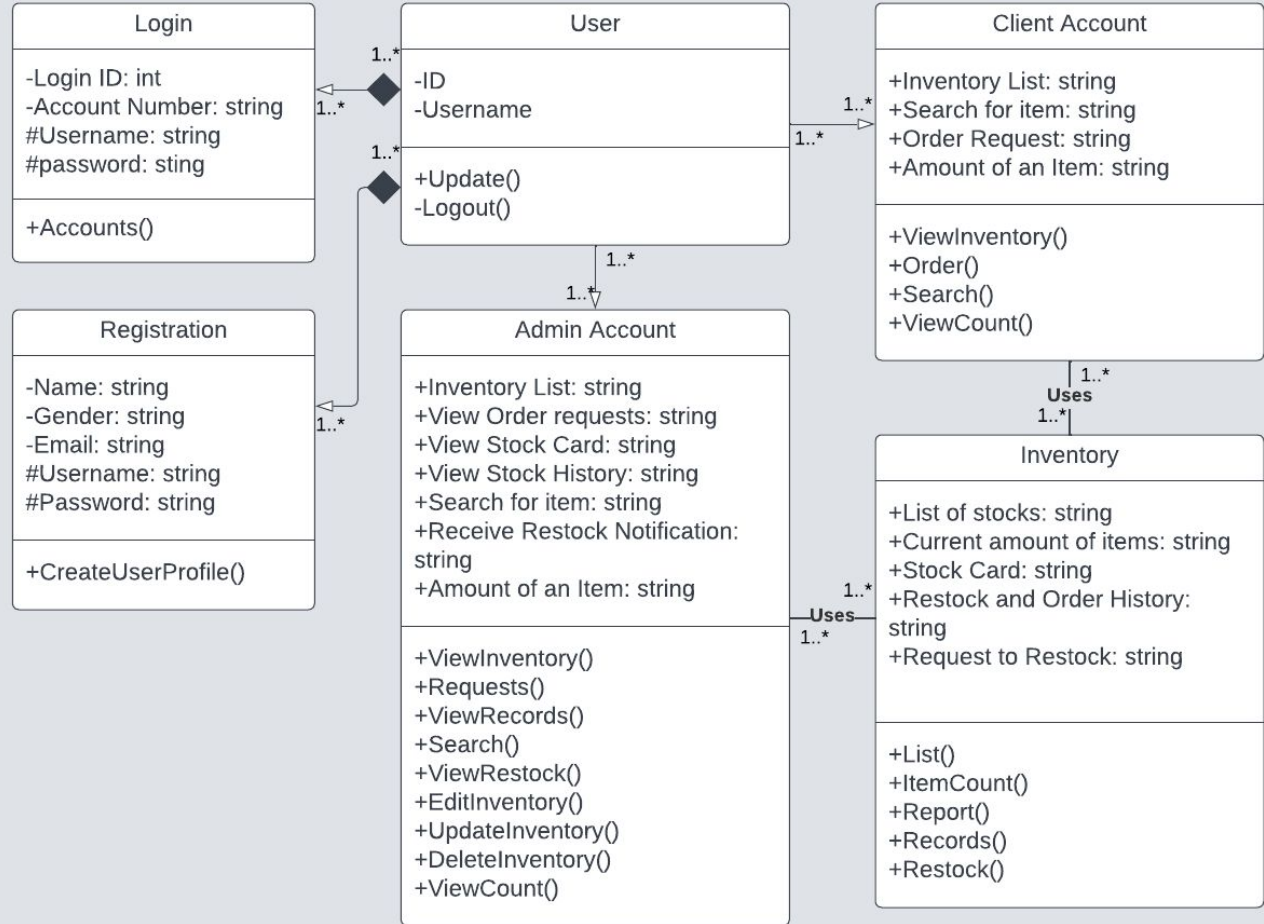
Use Case Diagram

GDF-IMS Use-case Diagram - This diagram shows system functions and the actors involved.



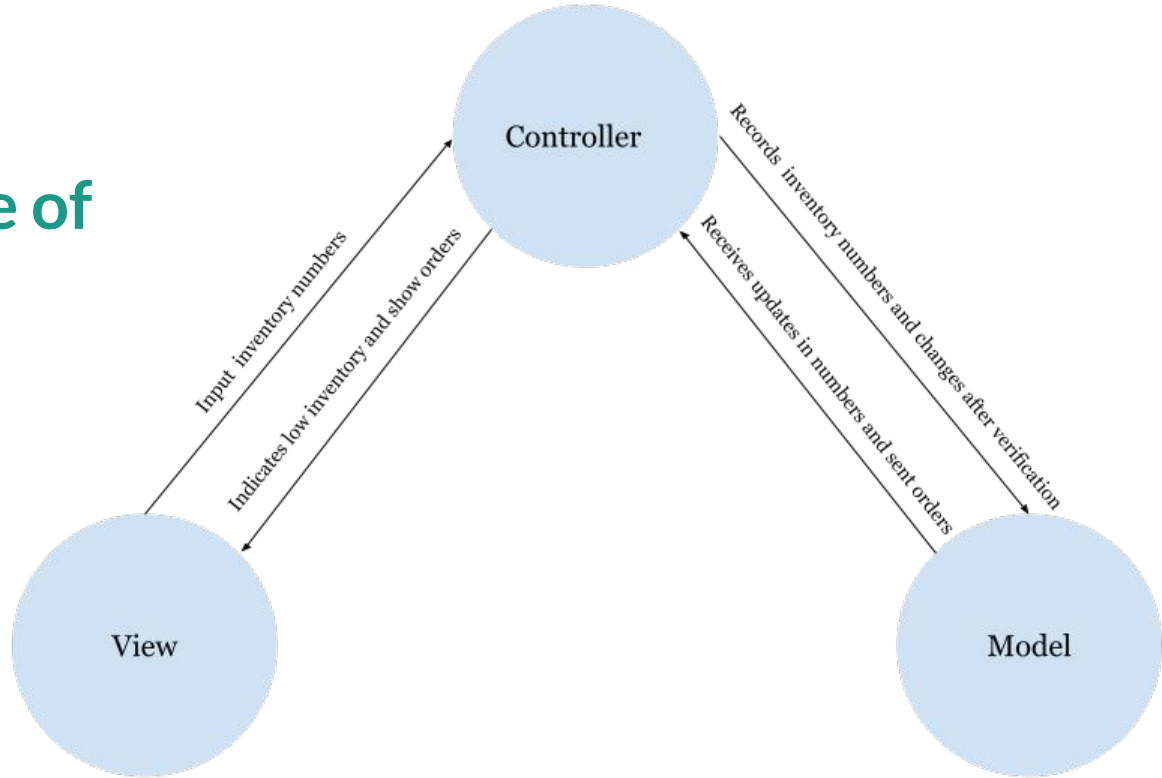
Class Diagram

GDF-IMS Class Diagram - This diagram describes the structure of a system.



MVC Architecture of an Admin User

- Admin enters the number of items available
- Admin receives orders
- Orders are then verified
- Stock levels are updated in the system

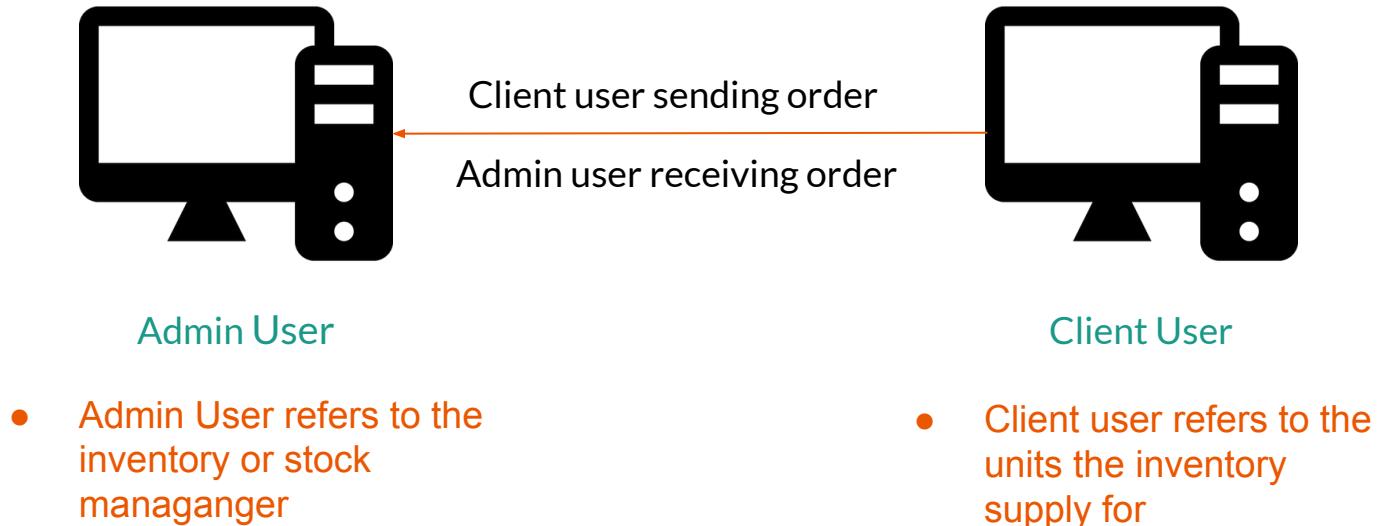




System Testing

System Testing

Sending and Receiving Orders - High Priority



System Testing

Test Steps

1. Create database
2. Connect to database
3. Establish difference between admin and client user
4. Valid login
5. Test functionality
 - Admin user ability to receive and view orders
 - Client user ability to send order orders

System Testing



Inner Functionality Test

Admin User	Client User
<ul style="list-style-type: none">● Functioning “View Order” button● Receive notification of new order● See time and date order was sent	<ul style="list-style-type: none">● Functioning “Send Order” button● Review order● Functioning “Edit Order” button● Number of items ordered must be cross checked to number of items available in inventory● Search inventory list● Enter numbers

System Testing

Test Data

Date	Time	Item	Amount In Inventory	Amount Ordered
11-11-2022	10:14am	<ul style="list-style-type: none">• Pack of A4 Paper• Stamp Pad• Ink Cartridge• Box of pens	47 19 6 23	10 5 2 5



Thank You for Listening

Questions?