Shipping Software

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ShipFast Overhaul

November 29, 2023



Table of Contents:

•	Executive summary	-	-	- 3
•	Systems alternatives	-	-	- 4
•	Maintenance Plan	-	-	- 5
•	Appendices	-	-	- V
	o Class diagram	-	-	- 6
	 Deployment Diagram 	-	-	- 7
	o Functional Models	-	-	- 8
	o Behavioral Models	-	-	- 10
	o Database Tables	-	-	- 12
	o Wireframes	-	-	- 13
	List of Jira Stories	_	_	- 18

Executive Summary

ShipFast LLC is undertaking a significant overhaul of its shipping operations to enhance customer satisfaction and operational efficiency. After evaluating options like maintaining the current system or adopting pre-built solutions such as ShipBob WMS, ShipFast has chosen to develop a custom-built system. This solution is designed to be robust and maintenance-efficient, significantly reducing clerical staff needs and improving order processing and tracking.

The new system aims to address the limitations of the current setup, often highlighted by clients, by offering a powerful, well-maintained framework with a well-defined API. This move is expected to streamline the shipping process, reduce operational costs, and provide clients with more resources and ordering options. A comprehensive maintenance plan supports this overhaul, featuring robust uptime guarantees, off-site backups, data redundancy, and dedicated support channels. This plan ensures seamless client integration, easy access to inventory, and streamlined shipping order placements.

In conclusion, the ShipFast Overhaul project marks a strategic shift towards a more efficient, client-focused, and technologically advanced shipping operation. The choice of a custom-built system is set to greatly enhance client satisfaction and streamline operations, positioning ShipFast LLC as a more secure and reliable partner in shipping services. The subsequent sections of this report detail the technical and operational framework for the successful implementation of this ambitious initiative.

Systems Alternatives

The alternatives to this overhaul consists of a few options which we will explore in depth.

- 1. Maintain the current system. This option is least desirable as it would require keeping the current system. To do this we would need more clerks, to lighten the load, which would increase costs. As the goal is to increase revenue by providing clients with a well defined API, this would not be a good option because the old system which clients are complaining about would be kept but with additional costs.
- 2. The second alternative would be to use a pre-built system such as ShipBob WMS. The pros of this option would be that it is maintained automatically for multiple different companies. It will also work well for ShipFast LLC since it is built for similar corporations and has already been tried and tested. Cons are that it will not fit as well, there will be holes in the system that will need to be filled by employees. The reduced cost of a one size fits all solution will not be sufficient to justify these holes.
- 3. Our proposed solution is to create a tailor made system built specifically for ShipFast LLC. This will not only provide a powerful and well maintained system, but will also supply the clients with additional resources and options for each of their ordering methods. It will reduce costs by allowing for only one clerk to be able to administer over the entire system. It will allow for seamless ordering and tracking of each order.

Maintenance Plan

Software Purpose:

The primary objective of our software is to seamlessly integrate clients with Ship Fast LLC, facilitating easy access to inventory and product information. Clients can efficiently place shipping orders, thereby streamlining the shipping process and enhancing overall client satisfaction.

For further inquiries, please visit our dedicated link: Shipfast LLC - Software Details

Uptime Guarantees:

As a valued client, you benefit from our commitment to uninterrupted service. Our off-site backup ensures the continuous operation of your system, even in the event of an outage. Data redundancy is maintained across multiple locations, and a comprehensive system backup occurs automatically at regular intervals.

Support Contact:

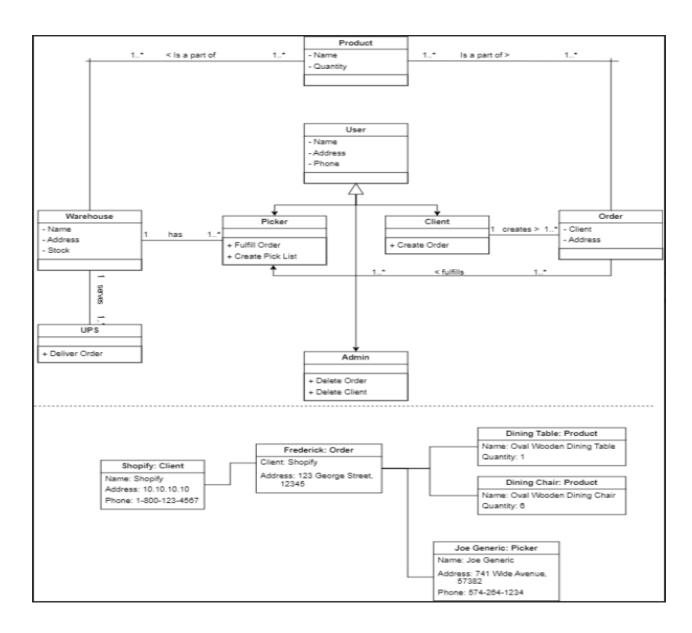
To report bugs or request new features, please utilize our user portal at www.shippingsoftware.com using the code 'SHIPFAST'. In case of portal unavailability or emergencies, you can contact us directly at help@shippingsoftware.com or reach our support hotline at 888-555-4356.

System Status:

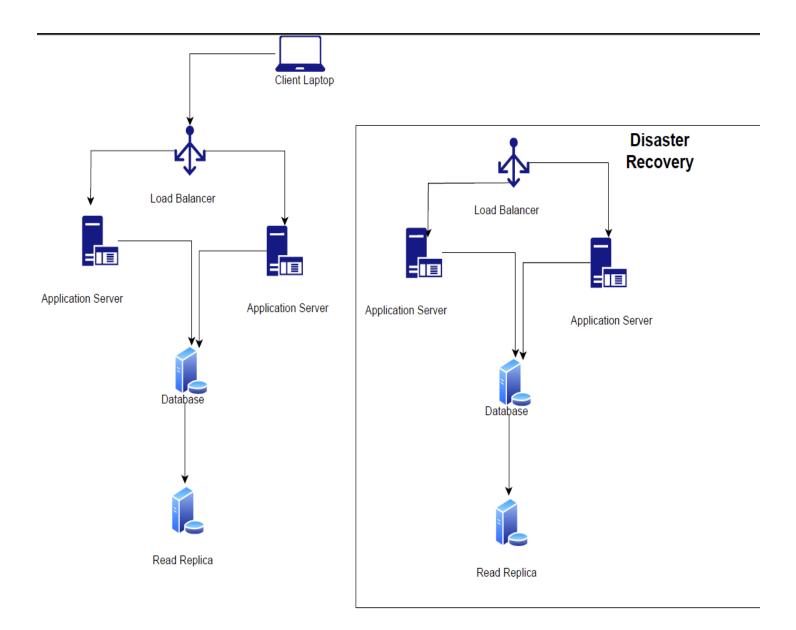
Stay informed about the status of your system by visiting: Shipfast LLC - System Status

Appendices:

Class Diagram

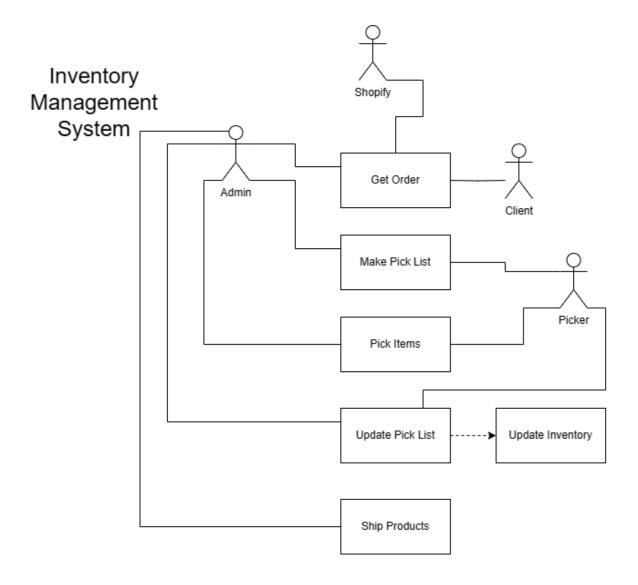


Deployment Diagram

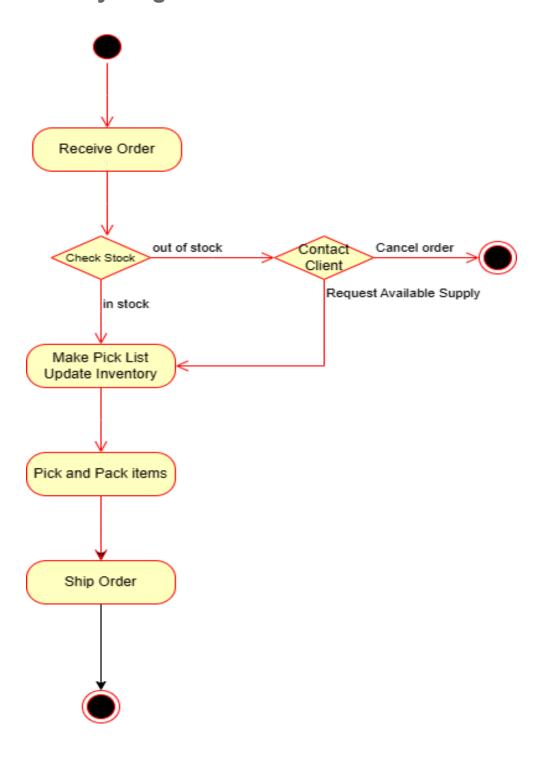


Functional Models:

Use case diagram:

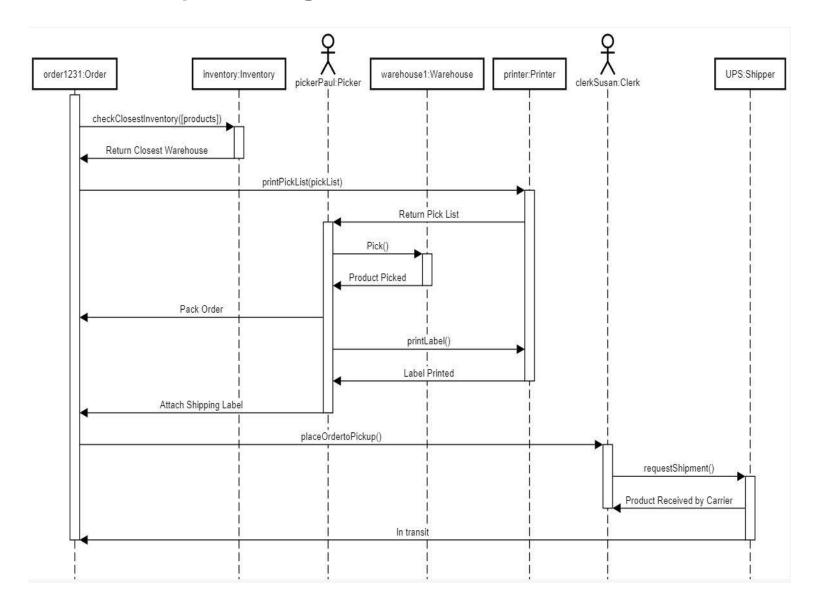


Activity diagram:

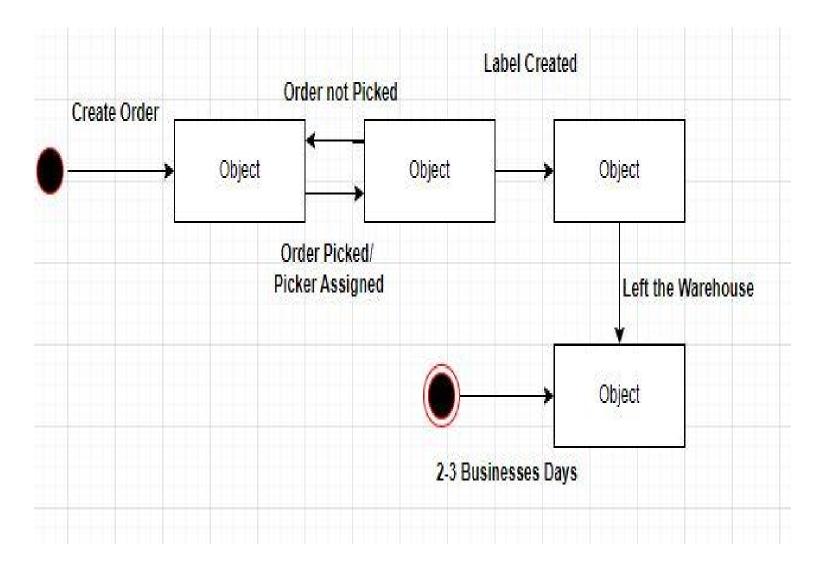


Behavioral Models:

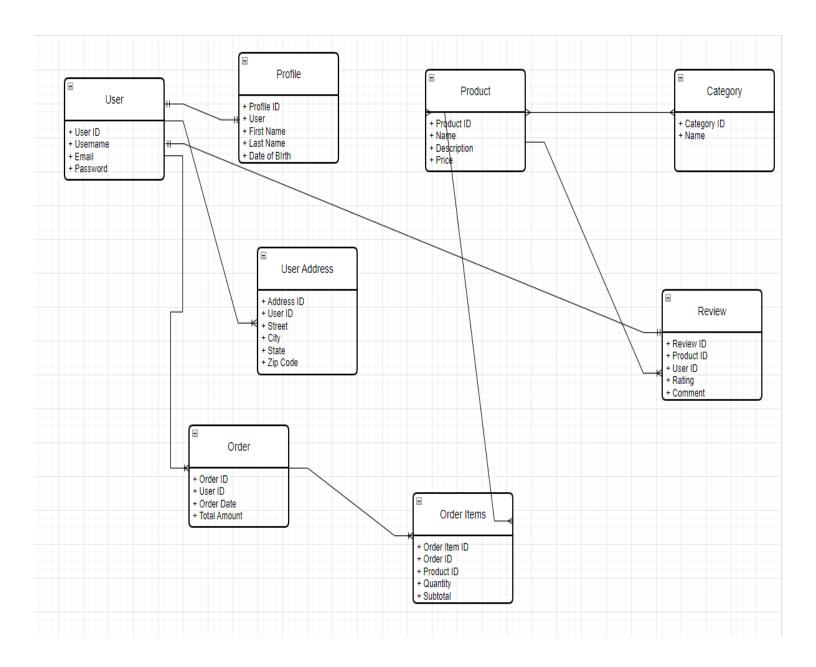
Sequence Diagram



State Machine

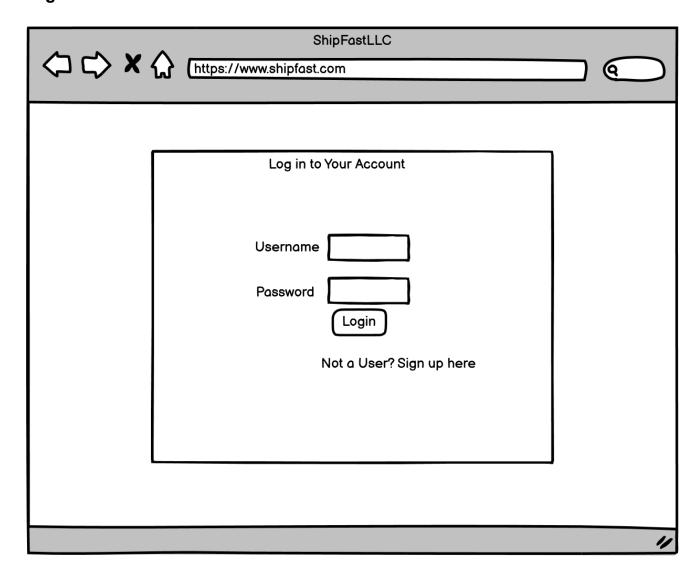


Database Table



WireFrames

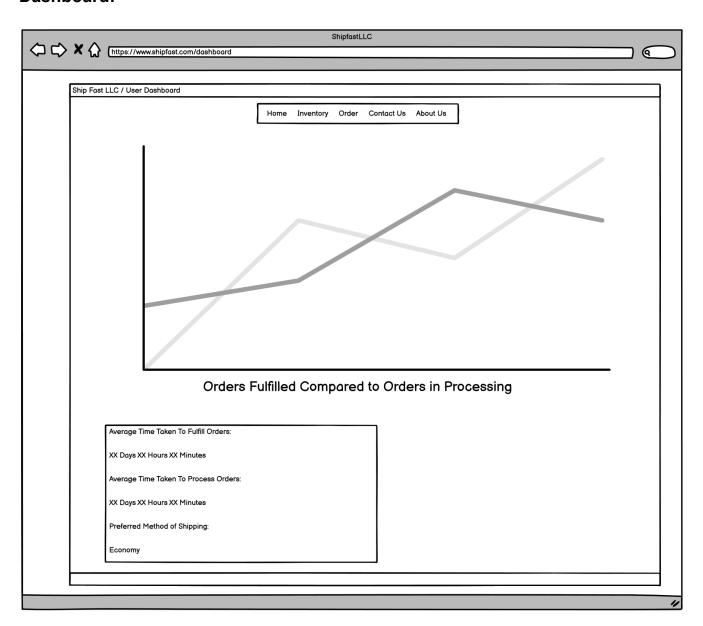
Login:



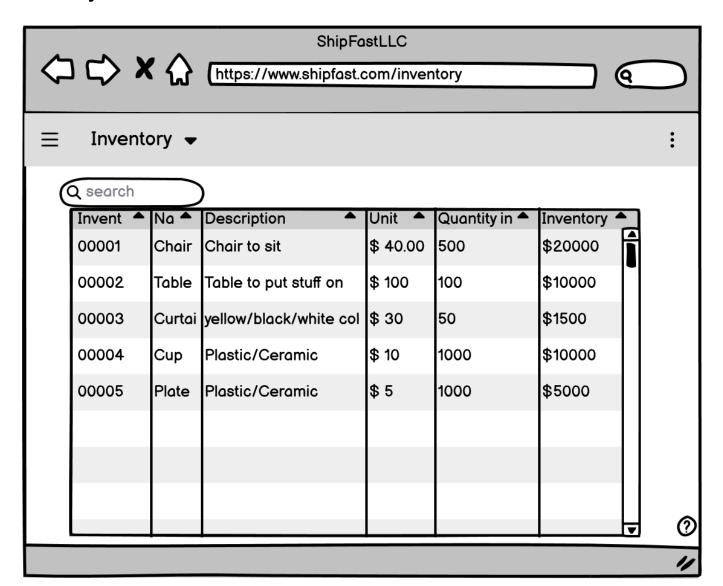
Sign up:

ShipFastLLC https://www.shipfast.com/signup
Sign up for Shipfast Username Password Name Shipping Address Email Description Login Back to Login
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Dashboard:



Inventory:



Order:



List of Jira Stories

Summary	Key	Description
Non-Functional: Company loads webpage in a certain amount of time	1	As a company I need to have the webpage load in a certain amount of time
amount of time		So that the users can see any changes made, or in case of a connection error
		Acceptance Criteria # The web page will load within 2 seconds under normal condition. # Inactive users experience a responsive webpage with no auto logouts. # Connection error prompts a user-friendly error message for troubleshooting.
Picker sets products to Available/Unavailable	2	As a picker
		I have to be able to set products to Available or Unavailable
		So that the customer knows why I did not pick up their product
		Acceptance Criteria
		# Pickers can mark products as "available" or "unavailable" # Product availability is updated in real-time for customers to see
		# Message explaining why a product is marked as "unavailable"
Customer starts new order	3	As a customer
		I want to be able to start a new order
		So that I can order a product when I want to
		Acceptance Criteria
		# Customer can add products to their cart and specify quantities.
		# Customer receives email confirmation after finalizing the order. # Error messages are displayed for any order creation issues.

Company keeping information secure	4	As a company
		I need to make sure all informations are secure
		So that I can prevent an unauthorized access by attackers
		Acceptance Criteria
		# Implement encryption for data
		# Regularly check and fix volunability # Set up access control
	_	<u> </u>
Order Class	5	As a company, I need an order object that contains necessary info about individual orders, which is easily accessible to the users with sufficient viewing privileges.
		Acceptance Criteria:
		# Order class contains unique order number.
		# Order class contains orderDetails object.
		# Order class is view only, except for users with sufficient rights.
Clerk Class	6	As a company, I need a Clerk class of type user that is able to perform the required duties of a Clerk.
		Acceptance Criteria:
		# Clerk class inherits from User class.
		# Clerk class is automatically assigned access control groups specific to Clerk Class.
Admin Class	7	As a company, I need a class of user Admin that instantiates an employee as an admin and assigns specific user access levels.
		Acceptance Criteria:
		Admin class inherits from User class.
		2. Admin class is assigned specific rights for admins.
Generate Clerk Reports	8	As a clerk, I need to be able to generate reports on demand so that I can manage inventory, billing, picker statistics, item popularity.
		Acceptance Criteria:
		System must be able to print requested report with minimal user interaction.
		2. System must authenticate user with Azure Active Directory before allowing access to view/print reports.

Shopify integration	9	As a company, I need the shopify integration to keep shopify inventory and listing up to date, and accurate. Accepted Criteria 1. Shopify inventory stays updated and accurate. 2. Shopify customer information for packaging slips and shipping labels is retrieved automatically to the pickers system for ease of printing. 3. Shopify integration must work both ways, local inventory update <> Shopify inventory
API Performance	10	As a company, I need an API that responds to user input within one second. Acceptance Criteria: 1. API must respond within one second. 2. API must send message apologizing for poor performance if it does not meet the 1 second threshold.
Inventory Management	11	As a company, I need an inventory management system that updates in real time when inventory is added or removed so that we do not sell items that are out of stock with incorrect shipping dates. Acceptance Criteria: 1. Inventory updated on payment receipt. 2. Inventory removed from totals on order object instantiation.
Integrate with UPS LabelMaker	12	As a picker, I need to be able to press a single button to automatically print a shipping label so that picked packages can be appropriately labeled and shipped. Acceptance Criteria: # Label prints with one click. # Computer integrates with UPS software and Label Maker. # Computer checks for UPS software updates nightly.

Company backs up data	13	As a company
		I need to have database backed up
		So that I can restore data if there is any outage
		Acceptance Criteria
		# Data is backed up
		# Database is restored every 3 months
		# Outages are simulated every 3 months
Packing Slip	14	As an company, a packing slip needs to display the critical information.
		Acceptance Criteria:
		1. Our Company name
		2. Return address
		3. Customer address
		4. Item(s) purchased
		5. Quantity per item(s) purchased.
		6. Item(s) Description
Picker App	15	As a picker, I need to have a system of marking orders as packed/completed so that order status is up to date and orders are packed to completion.
		Aggentance Criteria:
		Acceptance Criteria: # Accessible only on internal networks or VPN under an employee login.
		# Sync with Azure Active Directory to authenticate authorized employees
		# System to mark orders as picked/complete, and update in real time.
		# Available through browser on mobile devices.
		# System to mark inventory as out of stock.
Company provides	16	As a company
shipping labels for		
pickers		I need to create shipping labels
		So that pickers can create packages
		Acceptance criteria
		# Shipping information is created from order
		# Information is printed on label
		!

Picker List	17	As a picker, I need to have a list of items that belong in an order so that I can pack orders correctly and efficiently. Acceptance Criteria: 1. Order list is printed and contains correct amounts of items. 2. Order list is accessible with minimal computer interaction.
Database Backup	18	As a company, I need the company database to be backed up nightly and fully restorable within one hour. Acceptance Criteria: 1. Database is backed up nightly 2. Database is available to create a full system restore with less than one hour of down time.
Company pays shipping service	19	As a company I need to automate payments for shipping services So that the shipping services receive payment on time Acceptance Criteria # Payment information is collected from customer # Money is sent to company to pay for shipping
Database Creation	20	As a company, I need to have a database that contains tables for orders, customers, employees so that the data is stored in an efficient manner. Acceptance Criteria: # Database exists # Database contains necessary tables (employees, orders, customers)