1.Company Description

Company Name & Description: The Gaming Frontier is a foreign game distribution hub that customers can use to buy foreign games without the hassle of having obtaining it themselves. For example, let's say that there was a game that you wanted to have but, it was only released in Italy. There are only a few possible ways that you can get it. You can either get a friend to mail it to you or, go to Italy yourself or buy it. This is where the Gaming Frontier comes in. With this hub, you'll be able to buy a game through this company via phone call. The company also offers services such as top up services for foreign MMO accounts or prepaid cards for foreign digital proprietary console stores like PSN, xbox store and Nintendo e shop.

- The type of transactions that the company handles are customer orders

- They process approximately 100 orders a day (this is all done with the pen and paer order recording system that is currently in use)

- **Company Locations:** The company's main HQ is in New York. The company has distribution warehouses in NA, EU, Japan and south Korea. The distribution building's sole purpose is to send previously ordered games to the customer.

- **The suppliers will be** game manufacturers like Capcom, ninja theory, team ninja, platinum games, etc.

- **The amount of employees this company is comprised of** 90 employees for each previously mentioned country

Annual Revenue: Annual revenue is 200,00 a year. This comes from a service fee that is added onto a customer's order

2.Scope Definition

Information system being designed: The new information system will automate the company's ordering process as well as offer many features for customers to take advantage of like devilry tracking and customer support. Once the system is created. The system will need to be able to gather order information from the company's website to a dedicated database. This database will hold information such as customer information such as price, address etc. Once that has been recorded, the system will send the order's information to the nearest distribution warehouse. For example if you buy a game that is currently being sold in japan and china, and the customer ordered the Chinese version of the game. The system will then send in the order to the Chinese distribution warehouse. After the warehouse receives the order, the system in that specific warehouse will automatically send the order to the nearest manufacturer. Once the manufacturer sends the ordered game to the warehouse that had previously sent the order. The order will then be subsequently shiped it to the customer by the employees of the warehouse. The shipping will be F.O.B. destination point so there's going to be an added shipping cost

Why the company needs this information System: the company's Current system is the single thing that holding the company back. The company's ordering system is a paper and pen based system. Processing orders take longer than it should which directly affects the amount of revenue that can be obtained in a day.

Estimated time to design implement and install: This system will take around a year to design and implement. The design will take place during the first 4 months. System building will occur in the next 5 months. System installation/implementation will occur during the last 4 months.

Cost: Hardware (33,000) + Software(15,000) + hiring designers/technicians(25,000) = Total Cost ($73,000)

Total amount of people needed: 75. 25 system builders, 25 designers, 25 others. Others being the system admins and owners that are going to discuss what the system is going to do and how it's going to be made.

3.Problem analysis

Problem 1: The Company records orders via pen and paper. This is an inefficient form communication between the distribution warehouses as well as the customers. Order processing takes up too much time and requires a lot of employees to do so.

Answer: The new system records orders through the website that customers will soon use. These orders will then be recorded onto a database. This method will increase the speed at which orders are recorded as well as minimize any sort of recording error that would obviously occur during the paper/pen recording method.

Problem 2: The current system has no way of informing customers of their order's progress.

Answer: There will be a system that automatically tracks a customer's order from the day of the transaction to the second the order reaches the customer. Customers will be able to see this progress via the new company website. The customer will need a unique order number that will be sent to the customer via email. Each order has a specific order number that can be used by the customer to track their order

Problem 3: No efficient way to perform a transaction. The Company accepts payment via mailed checks. This is the only way that customers will be able to pay for the company's services. This method will strain the amount of time it would take for any sort of transaction to occur.

Answer: Customers will be able to pay online (once again through the company's website) Payment method will be Paypal, which will facilitate the procrss of ordering via debit/credit cards. This method will process transactions quicker.

Problem 4: The current system has no customer support feature. This poses a huge problem for customers that want to report an issue that they may have with the company's service be it ordering issues or website malfunctions.

Answer: Soon, customers will have options in regards to how they will be able to contact us for problems that they might have. For example. If a customer has a common problem they can navigate to the FAQ section to find an answer. If a specific customer has a more unique problem that they want to inquire, they will be able to submit a support ticket via the the help section's support ticket feature.

4.Requirements Analysis

Client Features:

1. Clients require more efficient ways to pay online. The new website will allow customers to pay online via Paypal

2. They'll also need a feature that will allow them to contact us if an issue were to ever arise. So clients require a feature that allows communication between customers and company support representatives whose sole purpose are to communicate with customers and help them with whatever problem they may have with the system
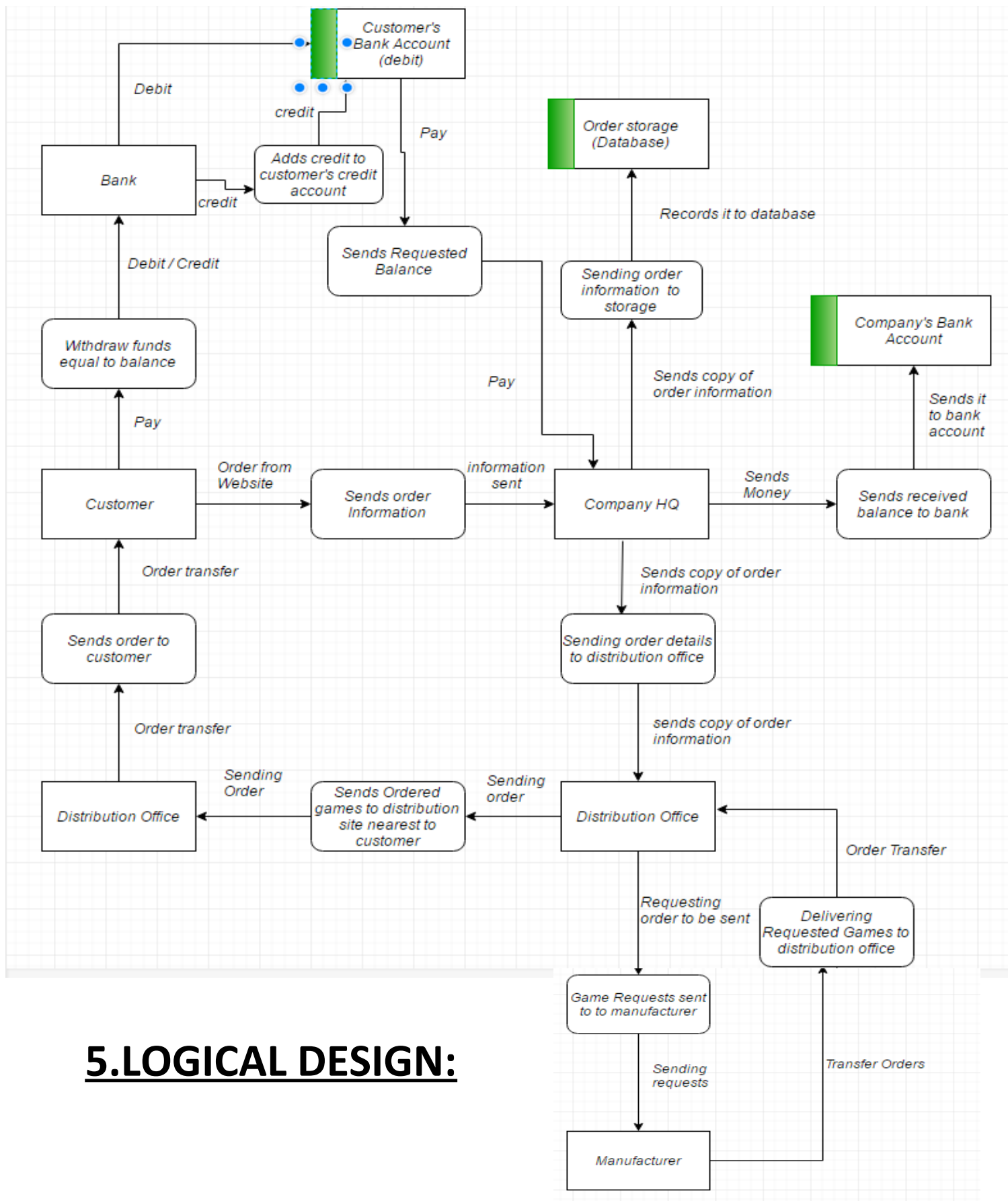
Features used by suppliers:

1. Suppliers will require a program receives and displays orders sent by a distribution warehouse. This order will be a message from the automated system that will both list the games that have been ordered as well as the distribution warehouse's location.

2. They also are going to need some way to communicate with us if a problem were to ever come up with an order.

Features used by System Admins:

1. System Administrators are going to need utilities that will help them figure out whether or not the system is performing the way it should be. This will prove useful when it comes to figuring a system maintenance schedule

2. Admins are also going to need application that will allow to them to perform maintenance on certain parts of the system without interrupting the whole system.

Features used to analyze quality of company's operations

1. The company's president is going to need specialized program that will enable them to view the company's monthly revenue.

2. The System administrators need a program that filters through submitted customer tickets and display the most common problems

5.LOGICAL DESIGN:

Customer's Bank Account (debit)

Debit

credit

Pay

Bank

credit

Adds credit to customer's credit account

Order storage (Database)

Records it to database

Debit / Credit

Sends Requested Balance

Sending order information to storage

Company's Bank Account

Withdraw funds equal to balance

Pay

Sends copy of order information

Sends it to bank account

Pay

Customer

Order from Website

Sends order Information

information sent

Company HQ

Sends Money

Sends received balance to bank

Order transfer

Sends copy of order information

Sends order to customer

Sending order details to distribution office

Order transfer

sends copy of order information

Distribution Office

Sending Order

Sends Ordered games to distribution site nearest to customer

Sending order

Distribution Office

Order Transfer

Requesting order to be sent

Delivering Requested Games to distribution office

Game Requests sent to to manufacturer

Transfer Orders

Sending requests

Manufacturer

6.Decision Analysis and Design

Operational Feasibility:

- The operational feasibility will be satisfied when the system Is finally built. Not only does the new system satisfies the current main problem that the company has which is their slow ordering process but, it also adds a few more features that both the future system administrators (who will be hired to manage the system) and customers

Technical Feasibility:

Is the proposed technology practical?

- Yes. The information system itself is practical. This kind of system has been done by many other online ordering company like amazon and eBay for years. Which is why it can be easily made.

Do we currently posses the necessary technology?

- The hardware and software needed to build this system is readily available for purchase, but, currently, the company doesn't have the technology themselves to make it.

Do we posses the necessary technical expertise?

- The company doesn't have the required personnel that can correctly implement such a system. The company needs to hire system administrators, designers builders etc to create it. This wont be a problem because of how inexpensive such an IS can be.

Schedule Feasibility:

- The previously mentioned schedule will be met. The system itself isn't a complex one So building it should be relatively easy. The information system will be created for each and every distribution warehouse that the company owns.

Economic feasibility:

- The entire project is going to be around $100,000. one ordering I.S. will be approximately $25,000 but, there' going to be 4 systems that will be created. One for each warehouse. The company will face no problem in paying for it, though. The company's annual revenue is $200,000 a year so the current finances that the company owns should be more than enough to cover the project's cost.

7.Physical Design and Implementation

Entity Relationship
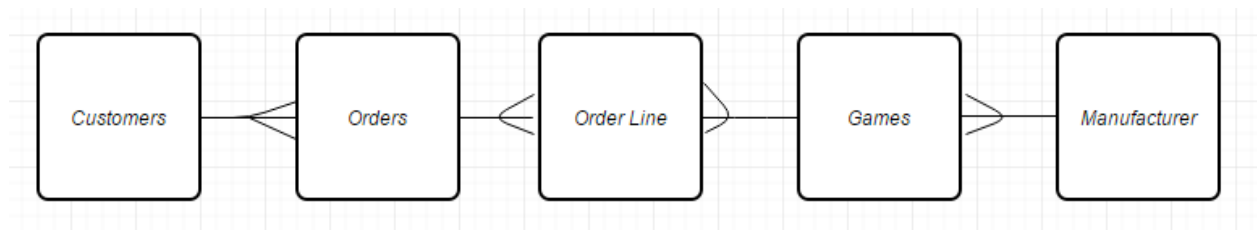
Table Definitions:

Customer

Customer ID# (NUM)(PK)	First Name (char)	Last Name (char)	Phone # (NUM)	Email (char)	Country (Varchar)	State (varchar)	City (varchar)

Order

Order ID# (int)(PK)	Order ID# (NUM)(FK)	Customer ID # (int)	Order Date (date)

Order Line

Order line # (NUM)(PK)	Order ID# (NUM)(FK)	Game ID # (NUM)(FK)	Quantity (NUM)	Price (Number 4,3)

Games

Game ID (int)(PK)	Game Name (varchar)	Game Description (vharchar)	Manufacturer ID # (NUM)(FK)

Manufacturer

Manufacturer ID (int)(PK)	Manufacturer's Name (varchar)	Country (char)

Construction and Testing

Testing the systems new ordering system via new website

- There will be a total of four teams who will test out the new ordering systems. One team for every warehouse.

- The tests will be carried out on a step by step basis. One supplier for each country will participate in these tests.

1. First, a tester of the currently tested warehouse makes 4 pseudo orders through the website using an account. The account will have a debit card to test the system's

payment options and an email to test out the system's order tracking feature. Each order will be sent to a different warehouse.

2. If all warehouses receive an then the testing phase will move onto to a subsequent step. If an error occurs then all tests will be halted

3. Once halted, the system builders of that current information system will analyze and identify the issue.

4. Once the issue has been found and repaired, the testing phase will start over from step one.

5. Warehouse testing will be completed once step one's task is completed

6. The testing phase will be completed once every warehouse has tested and made sure that their respective ordering system work as intended.

Testing the website's ticketing system:

1. A tester submits a ticket through the website

2. If the feature works as planned then, The company's support section (which is located in the company's HQ) will receive the ticket.

3. If the ticket is legible then the testing process is completed

4. However, if the ticket doesn't go through with the same exact content that was previously submitted by the tester then, testing will be halted

5. The HQ building team will then attempt to identify and resolve the problem.

6. This test will then repeat from step one.

7. Testing will be completed once step one and two's objective has been met.

Installation and Implementation

- The website will be used by our customers to order games

- the support section will be used by users who may have questions or issues with our current system

- The system admins will then maintain the system and keep it up to date. Administrators will also perform system maintenance on a bi weekly basis.