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Choose a small company you are familiar with. What does the business do? Write a short, one to two page double-spaced paper describing the business and its existing system. Then draw a context-level diagram and a system-level diagram for the existing system. Do you see any inefficiencies or weaknesses in the current system? If so, describe them.
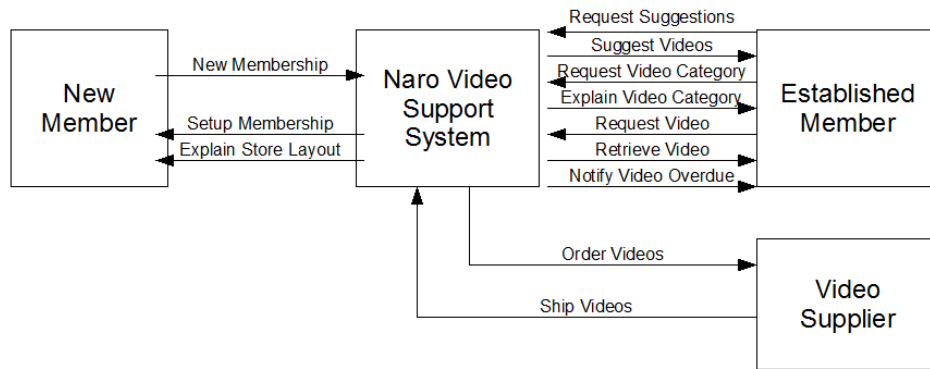
The Naro Video store in the Ghent neighborhood of Norfolk Virginia has one of the most eclectic collection of movies you will ever find on the planet. The Naro Video's popularity stems from its ability to provide customers with fascinating and engaging films that they would otherwise never have heard of, and making customers fluent in cinema as an art form.
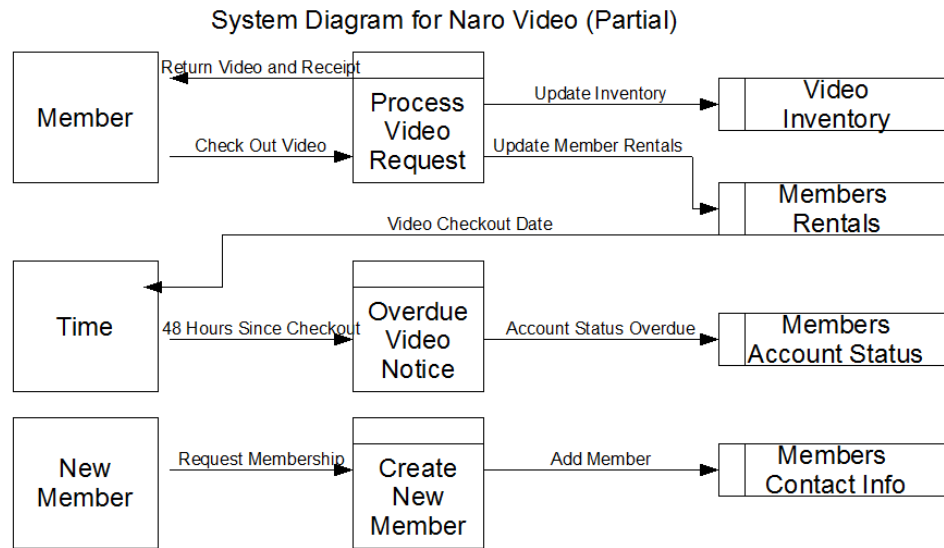
People who come into the store looking to find the latest releases often get lost within the store's unusual categorization scheme and the fact that only one instance of each film is displayed on the shelves in order to maintain enough room to showcase its expansive collection. While some films are categorized by unusual genres, like science fiction, blackspoitation, action/adventure, or homosexual interest, other films are categorized by who directed them, and others are categorized by country of origin. Without the store's knowledgeable staff, I would find myself wandering around the store for hours trying to figure out what to rent.

Naro Video has a rewards program, where customers who pre-buy 40 rentals will get five additonal rentals for free. Depending on who's working the counter that night, they might give you a few additional rentals with that. This is handled with punch cards, and, in fact, the Naro Video's system is entirely paper-base. Employees serve as mental catalogs of where all films are located, a stack of yellow carbon-copies on the counter serves as a tracking system for overdue videos, and the store keeps track of what's

available by keeping the DVDs behind the counter and putting the DVD case in gap left

when a DVD is taken out of the collection.

Context Data Flow Diagram for Naro Video

New Member
→ New Membership →
← Setup Membership
← Explain Store Layout

Naro Video Support System

Established Member
← Request Suggestions
→ Suggest Videos →
← Request Video Category
→ Explain Video Category →
← Request Video
→ Retrieve Video
→ Notify Video Overdue →

Video Supplier
→ Order Videos →
← Ship Videos

System Diagram for Naro Video (Partial)

Member	← Return Video and Receipt — **Process Video Request**	— Update Inventory →	**Video Inventory**
	Check Out Video →	— Update Member Rentals →	**Members Rentals**

Video Checkout Date

Time	48 Hours Since Checkout → **Overdue Video Notice**	— Account Status Overdue →	**Members Account Status**

New Member	Request Membership → **Create New Member**	— Add Member →	**Members Contact Info**

This System Diagram is extremely simplified. I had to draw it in Power Point, so I did not have the ability to easily edit it when issues became apparent. For instance, there should be an arrow from Members Account Status to Overdue Video Notice to Members notifying them of their account status. There should also be a line from Create New Member to Member Rentals as part of setting up the original account. This diagram also leaves out the ability to order new videos and provide information to Members requesting it.

One item that this diagram would not show is any reporting functionality. The Naro Video, because it lacks any method of record keeping, even keeping official inventory records, the Naro Video has no means of providing any information about customer buying habits or video popularity. Only the memory of employees can serve

this purpose. With an Information System, there is no burden of keeping paper records, and data can be converted into reports on customers and videos to inform management of trends and maintain better customer loyalty programs.

The time trigger is an interesting one, because, as with all of these transactions, we are talking about relying solely on human beings to maintain it. If there are a number of members with overdue videos, the last one in the stack of papers will be notified after a human has gone through the rest of the stack and called all of them first, and even the act of getting to the stack requires the employee to have the time for it. An IS solution would trigger automatically, and could even call customers with a recording.

Similarly, with a centralized IS, computer terminals could be set up in the store, allowing customers to view the current inventory, and allow videos in the inventory to be assigned multiple categories, allowing customers to find videos in multiple places, where the store can only keep each in one place.