Educational Resources Booking Desk
Computerized Request Process
Detailed Design

An Honors Thesis (ID 499)

by

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Design Document

Detailed Design Document

    The initial work, done by the systems team during the fall
quarter of 1987, has been revised to reflect any current changes
and updates.   This project encompasses the detailed design
section only of the systems life cycle.   The entire   project is
also being incorporated into a visual presentation using PC-
Storyboard.

PROJECT OVERVIEW

Due to the huge inventory at the Educational resources at Bracken Library at Ball State University, the existing manual system is no longer efficient. Up-to-date information concerning films, videos, and computers is not available in the timely manner. This project will be limited to automating the activities and responsibilities of the booking desk.

A new automated inventory system will provide current inventory levels, generate statistical analysis and scheduling reports, and eliminate excessive repetitive manual labor.

This report will consist of the following:

Problem Definition

Summary of Findings

Requirements

Benefits

Description of Current System

Systems Constraints

Possible Alternatives

Design Overview

Output Considerations

Interactive System Considerations

Ergonomic Considerations

Security Considerations

Cost, Schedule, and Personal Information

Appendix

PROBLEM DEFINITION

The True Nature of The Problem

The problem definition is the first and most important step in the system study. People must recognize that a need or problem exists before they can create a solution.

The nature of the problem is the existing manual booking system used by Educational Resources at Bracken Library. Due to the huge inventory, which is continually increasing, this manual system in so longer efficient. There are several factors which contribute to the inefficiency of the system.

1. -Booking assistants do not always know if a film or video is available for check-out.

2. -If a video or film is not available, it takes a excessive amount of time and effort to find who has it and when it is scheduled to be returned.

3. -An updated inventory list is not always available when needed.

4. -Problems of scheduling computers for students and faculty are increasing causing confusion and complaints.

Scope

The scope of this project will be limited to the activities and responsibilities of the booking desk. This would exclude those factors that are directly related to inventory control.

Objectives

The objectives of the new system are to provide the booking assistants with an automated inventory system for films, videos, and computers. A report generation program will generate required statistical analysis reports, scheduling reports, and other specific objectives include:

1. -Automated, up-to-date inventory checking system.

2. -Daily schedules of films, videos, and computers that will be on line.

3. -Statistical reports upon request which include the number of bookings for the films and videos the university owns and those it rents.

4. -Automatic form generation.

5. -To generate an initial booking system for the Compaq Computers and Sharp Portables.

Summary of Findings and Recommendations

The existing system at the Educational Resources Booking Desk in Bracken Library at Ball State University in Muncie, Indiana is an outdated system. The manual system lacks coordination and communication between the inventory personnel and the booking assistants. There is an excess of paperwork being done that provides no useful or limited information. Daily, weekly, and monthly reports are being prepared manually which result in a major time consumption for the booking assistants. Also, the availability of any film or video must now be checked manually by having someone search through all the title cards to see if the materials are accessible. This information is available on a data base, however, because of the lack of any computerized system, it is not being utilized. The current inventory level has surpassed the present capabilities of the manual system.

Recommendations to correct this problem are to computerize the existing system, and to eliminate excessive repetitive manual labor.

REQUIREMENTS

The requirements of the new automated booking system have been analyzed, and the results are as follows:

1. -Up-to-date inventory file; possible interface with existing film/video database.

2. -On line availability check for films, videos, and computers with very quick response time (1-5 seconds).

3. -Immediate updates of inventory file as items are brought back for return purposes.

4. -Automated form production.

5. -Generate statistical reports for varying time periods at any given time.

6. -Security controls may be necessary. Users must be contacted before this decision can be established.

BENEFITS

The benefits for designing a computerized system for the booking desk are numerous. These benefits can be either tangible, or intangible.

The tangible benefits are ones that are easy to measure. Some of these include more efficient workers. elimination of scheduling problems and delays, quicker availability checks for all film and videos, and computer generated reports (daily, weekly, and monthly).

The intangible benefits are those that are difficult to measure. These include increased employee productivity during working hours and overall improved employee morale. The system would be operated more effectively and faster, which would make not only the employees, but also the users more content and satisfied. Another intangible benefit would hopefully be a decrease in the number of complaints or at least a change in the type of complaints that the users will have to voice.

Overview of Benefits

Tangible Benefits:

-More efficient workers

-Eliminate scheduling problems and delays

-Create computer generated reports

-Quicker availability checks

Intangible Benefits:

-Elimination of complaints

-Improve employee moral

-Improved employee production

THE CURRENT SYSTEM

The current booking system used by Educational Resources of Bracken Library is a manual system which has become inefficient due to the huge, rapidly increasing inventory that is currently controlled. The problems with the current system include a lack of current information at the booking desk and sorting through huge paper files to find needed information.   Any statistical reports are created manually by counting papers in desired files.

There are four main processes which must be discussed to fully understand the existing system. These processes are listed below:

1. The request process

2. The receiving process

3. The set-up process

4. The return process

Not every request goes through process two, three, or four, but every request must go through the request process.   Each phase is now broken down and explained in detail.

REQUEST PROCESS

The first process, the request process, involves the activities of the booking desk. A person, either faculty/staff or student, approaches the booking desk and requests a particular item. At this point, either Sylvia Powers, Peggy Stoner, or one of their student employees checks to be sure the person is entitled to check out items. This is done by checking their ID-cards. If the person can not have the requested item, the request is orally rejected. If the request is valid, a form with white, gold, yellow, pink, and green copies is filled out by the booking assistant. The person is given the white, gold, yellow, and pink copies of the form and proceeds to the next process. The green copy is filed at the booking desk and is kept on file to calculate booking totals.

THE RECEIVING/PICKUP PROCESS

The second process is used only if the person is going to pick an item up. He/she goes to the equipment desk and gives them the copies of the form given to him/her at the booking desk. The employee at the equipment desk goes and gets the item. If the item is a film or video, the white copy of the form is trashed, the yellow copy is filed, and the pink copy is given to Basil Renbarger, the day supervisor, or Jeff Turner, the evening supervisor. If the item is equipment, the yellow copy is trashed, the white copy is filed, and the pink copy is given to the appropriate supervisor.

SET-UP PROCESS

The third process is executed if an item is to be set up by Educational Resources. The individual goes to the equipment desk and gives the employee the forms he or she was given at the booking desk. The employee files the white copy of the form. He/she then places the gold copy with the item and files the yellow copy in a second file by hour. The pink copy is given to a dispatcher who assigns a delivery person to set the equipment up and accomplish whatever else is requested by the user. Once the obligation has been fulfilled, the pink copy is filed.

RETURN PROCESS

The fourth and final process is the return of an item by the person who used it. When the individual returns the item, he/she is issued a receipt. The employee then, returns the item to storage. If the item was a film or video, the yellow copy of the form is removed form the file. The employee writes "returned" on it and refiles it. The white form is marked "returned" and refiled for equipment.

SUMMARY OF CURRENT SYSTEM

After careful consideration, and several meetings with the users, it as decided that the scope of this project would be limited to only those activities at the booking desk. This means the project would be to develop an automated inventory system for films and videos to be used by the booking assistants. The current equipment inventory system is working fine and is not the responsibility of the booking assistants, so it will be left for updating at a later point in time.

SYSTEM CONSTRAINTS

System constraints are those possible problems that may impact the new system. Constraints usually fall into four categories: economic, operational, political and psychological.

Economic constraints are those problems which might occur because of the costs of the new system. To remedy this, one must always work within the financial limitations of the user, or users. The economic constraints for this particular system are few. The booking desk already has a IBM-PC and a Zenith dumb terminal, so hardware purchases would be at a minimum. The software used would be written in-house which would also alleviate any financial burden. The only financial outlay for this project would be to purchase computer forms in order to print out various copies, instead of having to manually fill out the forms.

Operational constraints are the specific things needed to keep the system running. Most of these involve the hardware and software to be used in the system. Some common problems involve available storage capacity, an adequate data-base management system, availability of computer run time, and software

development tools. The operational constraints are also somewhat limited. The hardware and software is already present or will soon be supplied. The library also has a database for all films and videos that are currently on hand.

Political constraints usually involve a certain person or group of people who make the system change over difficult. The only remedy for this problem is to try and plan a flexible schedule in order to accommodate the troublesome personage. Psychological constraints are simple to define. The are simply the unwillingness of new users to accept the new system and the overall resistance to change in the organization.

The political and psychological constraints are practically non-existent. The entire booking system personnel are very willing to have their system automated. From Dr. Caucci, the Director of Educational Resources/Public Services, down to the student assistants, are sets of people highly motivated and excited about using the new system. The users of the current system desire the change, knowing it will increase their productivity and efficiency.

In designing a system, one must look ahead and be aware of any possible problems that may impact the system. Only by recognizing and preparing for these problems can one make the system successful.

ALTERNATIVES

The next several pages present three candidates considered as possible solutions to the problems currently facing the booking assistants when they are trying to check the availability of either a film, video, or computer. A brief description of each of the candidates is listed. Each of these descriptions is then followed by the benefits and problems associated with the candidate.

The Thrust Of Each Of The Proposed Solutions Is To Correct The Following Problem:

Requests are made at the booking desk, so an up-to-date inventory file is a must. At the present time, the inventory file at the booking desk is not always current. This problem stems from a lack of communication between the booking desk, where requests are made, and the equipment desk, where items are returned. When an item is back in inventory, the booking assistants should be notified immediately, but they are not.

Candidate #1

Modify The Existing Manual System

The simplest solution to the problem would be to enhance communications between the booking assistants and the employees at the equipment desk. When an item is returned to the equipment desk, the booking assistants should be notified as soon as possible. A copy of the request form should be sent to the booking assistants so they could update their inventory file. All statistical reports would be manually processed.

Benefits Of Candidate #1

-Paper inventory file at the front desk would be updated more often and would therefore be more accurate than it is at the current time.

-No costs would be involved.

Problems Of Candidate #1

-Equipment desk employees may resent the added step to their work process, and therefore deter any benefits that might come out of such a system.

-The booking assistants must still sort through a huge card file to check availability of a film or video.

-The booking desk inventory file will not be updated immediately following the return of an item. Thus, there will be a delay in the information process concerning inventory control.

Candidate # 2
Database Usage Of An IBM-Personal Computer

The second solution considered was to use dBase-III to create a database on an IBM Personal Computer. The systems team would assist the booking assistants in entering the necessary information on each of the films and videos into a relational database. Query commands could be used by the booking assistants to retrieve necessary information when a request was made. A printer would be installed and special forms purchased so that request forms could be automatically produced.

Benefits Of Candidate #2

-The   system   will   be   automated   to   provide   quicker

availability checks.

-This change will cause the booking assistants to become more productive.

-The number of complaints would be reduced because of the increased efficiency of the proposed system.

Problems Of Candidate #2

-The database may be too large to be installed on a personal computer. This will cause more problems than those that currently exist.

-The inventory file could only be updated from the one work station at the booking desk. The problem arises because all items are returned to the inventory desk.

-Personal computer software (5 1/4" or 3.1/2" floppies) could be damaged because of use by non-technical personnel.

-The statistical reports would still be manually produced.

Candidate #3

Mainframe On-line / Batch Processing System

The final and most complex candidate considered was to use a mainframe computer as the central processing unit. A database would be created on, and using Ball States' IBM Mainframe (IBM-3070 or the IBM-3083). Command level CICS programs would be used to produce screens for on-line availability checks. A batch program written in either EasyTrieve Plus or Cobol would be written to produce statistical reports that the booking assistants must currently calculate by hand. Terminals would be installed at the booking desk for availability checks and at the equipment desk for inventory file updates. The printer and special forms discussed as part of Candidate #2 would also be part of the mainframe system.

Benefits Of Candidate #3

-Quick response time for availability checks.

-The system would become increasingly user friendly.

-Immediate update of inventory file by employees at the equipment desk would occur.

-The booking desk and equipment desk will be linked.

-Workers will be more productive.

-Reports will be generated upon request.

Problems Of Candidate #3

-This system represents the biggest change from the existing system.

-The employees at the equipment desk, as well as those at the booking desk, must be trained.

-Costs will be higher.

-Implementation of this proposal will be the most time consuming.

Detailed Comparisons Of The Various Candidates

In deciding on which candidate to implement, the benefits

were compared to the costs and problems associated with each of the proposed systems. The potential improvement to the current manual system was also considered. Each of the proposed systems were evaluated against the following criteria:

1. - accessibility   2. - ease of use

3. - fast processing   4. - expansion capability

5. - customer service   6. - economy (additional

7. - accuracy   costs

A major factor considered during the decision process was expansion. No matter which system was chosen, it would have to have the ability to expand as the inventory at Educational Resources grows. Of the systems considered, Candidate #1 is the most limited in this area. The current inventory is large enough to cause problems, but expansion would make Candidate #1 impractical. The inventory could also expand to be too large for a date base on a PC, so Candidate #2 might not work either. Candidate #3, a mainframe database, is the best choice when expansion is considered.

Processing speed was also considered. At the present time, the system is terribly slow. The booking assistants must search through paper files and make phone calls to the equipment desk, just to determine if an item is in the inventory. Scheduling is even worse. The booking assistants really have no idea where an

item is or when it is available. Customer service as well as accuracy are terrible.

Candidate #1 will improve customer service and accuracy, but will not decrease the time the booking process takes. Candidate #1 is not much of an improvement over the existing system. The only advantages to Candidate #1 are the lack of costs and the fact that it does not cause much of a change in the current process.

Candidate #2 would improve processing speed and accuracy and thus improve customer service. The problem with Candidate #2 is that a PC database would be a one person unit. It could only be used by one person at a time. A list of returned items would have to be sent from the equipment desk to the booking desk, so the inventory could be updated.

Candidate #3 represents the biggest change to the current system. Accessibility is greatest with this system because two terminals at the booking desk and one at the equipment desk would allow the inventory to be updated the minute an item was removed from or returned to the inventory. Because of this, accuracy would improve over the two other candidates. These improvements lead to a large improvement in customer service and processing time.

The three candidates were compared on a desired characteristics matrix with varying weights given to the desired system characteristics. One can clearly see that Candidate #3 is by far the better choice.

(See following page for chart.)

CANDIDATES

Desired System Characteristics	#1 Modified Manual System	#2 Online PC Processing	#3 Online/Batch Processing
Accessibility:	9 2(18)	5(45)	8(72)
Fast Processing:	8 1(8)	7(56)	9(72)
Customer Service:	4 3(12)	6(24)	8(32)
Accuracy:	9 4(36)	6(24)	8(72)
Economy:	8 10(80)	7(56)	8(64)
Ease of Use:	7 2(14)	4(28)	7(49)
Expansion Capabilities:	9 2(18)	7(63)	9(81)
TOTALS::::::::	168	296	442

DESIGN OVERVIEW

Of the three candidates, Candidate #3 most closely meets the needs of the uses. The booking assistants want a system which makes their jobs easier by eliminating the pressure of unsatisfied users and the complaints that they are constantly faced with. The best way to do this is to make the availability checks a lot faster and much more accurate. Candidate #3 is the best way to achieve the requirements presented by the users.

THE NEW SYSTEM

The new system involves creating a database on the IBM Mainframe. The database must be able to handle the current inventory of over 6000 elements. There must also be capabilities for expansion, therefore, a relational database would be appropriate.

Command level CICS programs and maps will be developed to produce on-line query system. CICS is a system on the IBM used to control information in an interactive environment. (A

detailed explanation of CICS can be found in Appendix C). The advantage of using an on-line system is that as data is entered, it can be edited and checked for errors. This greatly minimizes the chance
of entering incorrect data into a file or database. Retrieved information from the database will also be displayed on-line. The screen layouts for the input and output screens can also be seen in Appendix C.

The main focus of this new system will be the availability checks for film and video. The proposed on-line system will allow a booking assistant to enter either the complete or partial title of the desired item. If only a partial title is entered, the database will be searched with the key words entered by the booking assistant. All the titles that contain the key words will be displayed on screen so that the exact title of the desired film or video can be obtained. Once the complete title is known, the title, and the date the item is desired will be entered. A schedule for the item and date will be displayed so the availability can be checked.

Films or videos could also be searched for by use of several other keys. These are subject, length, and type. This way, for example, if a professor wanted a 30 minute VHS on a certain subject, these variables could be entered and the titles of the items meeting the criteria would be displayed on the terminal

screen.   The availability of these   items would then have to be

checked.

Once the availability of an item has been established,

requested   information   on   the   particular   requested   must   be

entered.   This is currently done by a booking assistant manually

filling out a request form.   The new system could eliminate most

of this   chore.   The booking assistant will   call up a menu and

select which of the three request forms he/she wishes to produce.

The appropriate screen will   appear.   The booking assistant will

then enter the requested ID number.   If the requestee has ever

borrowed   an   item   before,   the personal data entered previously

would appear and could be verified, and changed if necessary.   If

he/she was a first time user, this personal data must be entered

by the booking assistant.   The stock number of the film would be

entered next, and all the necessary information pertaining to the

film or video would be displayed in the appropriate location on

the screen.   The date and time the item is to be checked out, and

the time the item is to be returned will be manually entered in

the   screen   in   the   appropriate places.   These procedures would

update the availability schedule of the item.   Once the form was

complete, it would be sent to a printer at the booking desk.   The

booking assistant would keep one copy and give the remaining

copies to the requested.   The requester would then proceed to the

equipment desk.

A terminal would also be needed at the equipment desk. When an item is returned, it is returned to the equipment desk. The inventory should be immediately updated to reflect the return of an item. This aspect of the new system will eliminate the confusion currently facing by the booking assistants because the inventory will always be current. The new system will have the capability of generating statistical reports which the booking assistants must currently manually generate. A batch program would be written to generate these reports. The booking assistants would simply have to supply a date range to be included on the report.

The batch program would be written in EASYTRIEVE PLUS, an information retrieval and data management system which is often used as a report generator. EASYTRIEVE PLUS is easy to learn and use. Despite the simplicity of programming complex automized reports, the reports produced by an EASYTRIEVE PLUS program can be viewed on-line or routed to a printer. EASYTRIEVE PLUS operates on the IBM 3070 and would be perfect for generating the statistical reports desired by the booking desk. (Details of EASYTRIEVE PLUS are located in Appendix C.)

OUTPUT CONSIDERATIONS

Media

It was decided by the systems team that both printed, and screen output is needed if the new system is to meet the users requirements. The users want quick availability checks. These will be accomplished through the use of screen inputs and outputs. A batch program will be written to produce hard copy statistical reports. The five copy request forms currently hand written by the user will be generated as the booking assistant enters the requesters data into the database. The forms will be printed by a letter quality printer at the booking desk.

Screen Output

A film or video's availability schedule for a certain day will be displayed when a booking assistant enters the stock number or item title and the date to be checked. Once this information is entered, the schedule will be displayed. The information displayed on the schedule includes item title and type. For each hour of the day, the availability is displayed.

If an item is unavailable, the date and time it is to be returned is listed. The borrower and his/her phone number are listed.

The request forms for computers will now be automatically generated. The booking assistant will use a selector menu to choose which request form to produce. The shell of the appropriate form will be displayed. The booking assistant will fill in the form on line and then have it printed on a special five copy form on a letter quality printer.

Printer Output

Statistical reports will be generated using a batch program which reads a history portion of the database. This report will be printed at the computer center and delivered to Educational Resources. It will contain the totals of either all the films or videos checked out, picked up, or set up for a certain day, week or month. Also, quarterly totals could be produced on request. This will eliminate all the manual number crunching presently being done to produce a tally sheet of information.

INPUT CONSIDERATIONS

Once the structure of the database has been set up, the information will be entered by student assistants. The day-to-day operations using the database will be done by the booking assistants at two terminals placed at the booking desk. A terminal will be placed at the equipment desk so that equipment desk employees can also update the database.

INTERACTIVE SYSTEM CONSIDERATIONS

The following interactive systems considerations are listed in a book by Doug Lowe, entitled <u>CICS For The COBOL Programmer</u> and were considered as the interactive system described in the design document.

1. Shared Files

More than one user will need to access the system at the same time so it must provide the capabilities to have shared files. All file updates must be coordinated so that more than one user can not update a record at the same time another user does.

2. Response Time

Response time is the time period a transaction takes to be processed. Factors that may affect response time are listed below:

- the size of the CPU

- speed of disk drives

- how the system parameters are set

- the speed of the communication lines

- how the application programs are written

3. Security

With the interactive system that has been proposed, terminals will be located at the booking and equipment desk, so security measures must be considered. For the proposed system, a log-on procedure with a users password will be used.

4. Recovery

In the event of a systems failure, a recovery system must be planned.

TRAINING

The training of the new users would be limited to the two booking assistants, Sylvia and Peggy. They would be trained on-line by the systems team. A simple manual would accompany the training, which would show screen outputs and user inputs to make the system more easily understood. After the two booking assistants had fully understood the system, they will be in charge of training the several students who work under them. An IBM/CICS specialist should then be hired by the booking desk should any problems arise during this academic year.

SECURITY CONSIDERATIONS

Security is a system of safeguards designed to protect a computer system and data from deliberate or accidental damage. A few common sense security measures to be implemented are that no one would be allowed to smoke or eat around the computer terminals and that fire detectors (smoke alarms) would be installed in order to prevent unanticipated destruction of the surroundings. Sprinklers could also be installed to minimize any fire hazard. (Most of this equipment is already installed).

To protect the data files, backup files of the master file and database file should be made and stored somewhere safely off-site. The on-line microcomputers should also make frequent copies of their diskettes in order to minimize the loss should the system crash.

Use of the terminals would be limited to library employees. However, because of the nature of data and its function, there will be no type of user security involved to determine if the user is authorized to use the system or not. Security is a very important part of every system. The previous steps will be implemented for the system. Any additional security devices could be added depending on if the need would arise.

COSTS, SCHEDULES, AND PERSONNEL

Personnel

The personnel required to implement the new system need to be specialized. The systems team would work up to the implementation of the new system. However, to actually code and implement it, a database specialist and an experienced IBM programmer would need to be hired. These professionals would be supplemented and advised by the systems team in order to create the technical aspects in producing the new system.

The users of the proposed system will be composed of the following individuals listed below, who all utilize the manual booking system.

-Sylvia Powers

-Peggy Stoner

-Basil Renbarger

-Student Assistants

COSTS, SCHEDULES, AND PERSONNEL

Costs

Hardware

Hardware will be supplied by the university through funding for library resources. Specific costs cannot be determined at this time.

Software

Software will be created by the systems team during independent study during Winter Quarter, 1987-1988, at Ball State University.

Other

As stated above, specific costs cannot be determined at this phase of the project. Much investigation is needed to provide such information.

Schedules

The Preliminary Investigation Report was completed and reported on October 27, 1987. The Analysis and Requirements Document was also completed and reported at the same time of the Preliminary Investigation Report. The completed analysis of current system and design of new system was scheduled to be completed by the end of Fall Quarter, 1987.
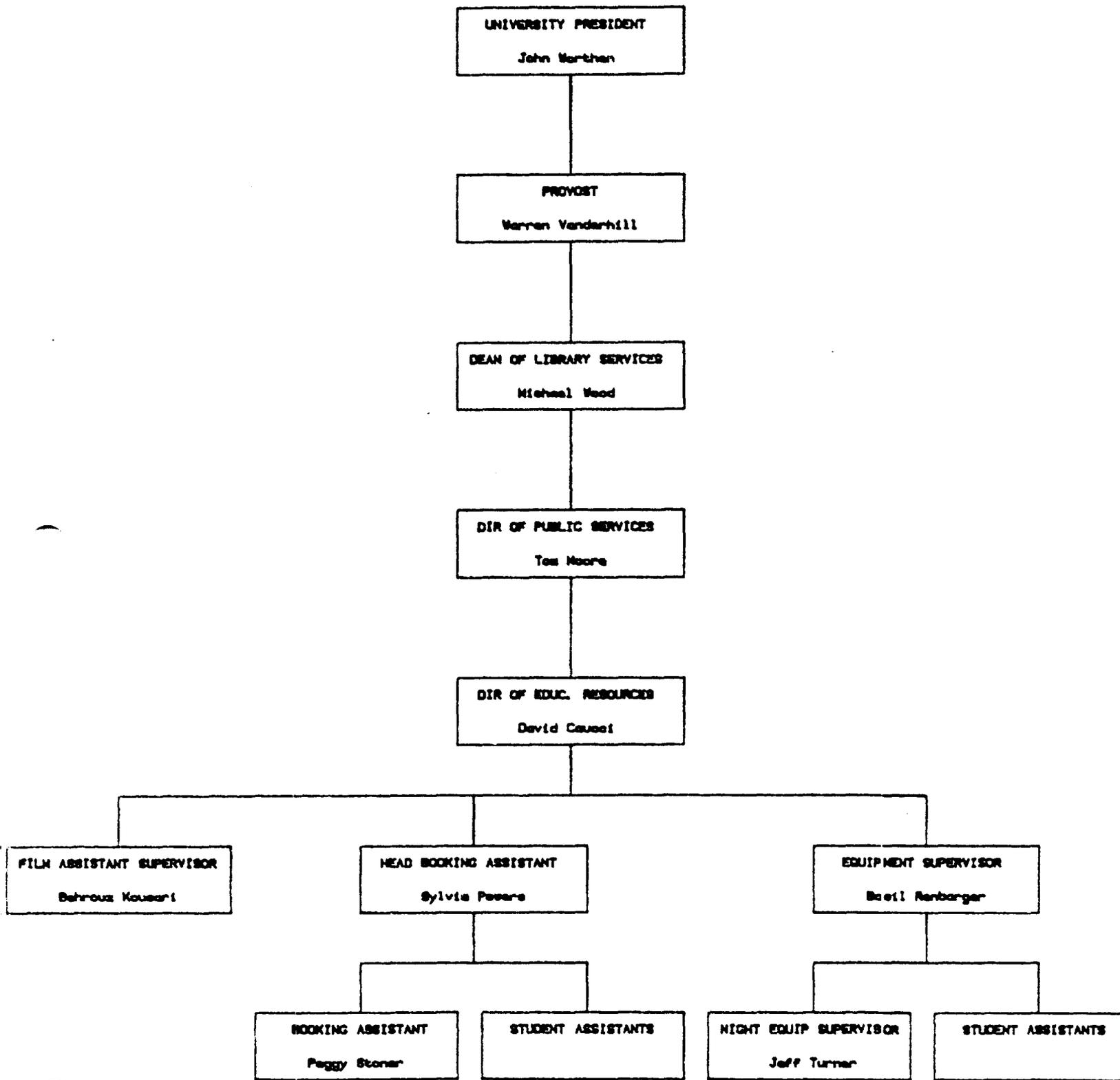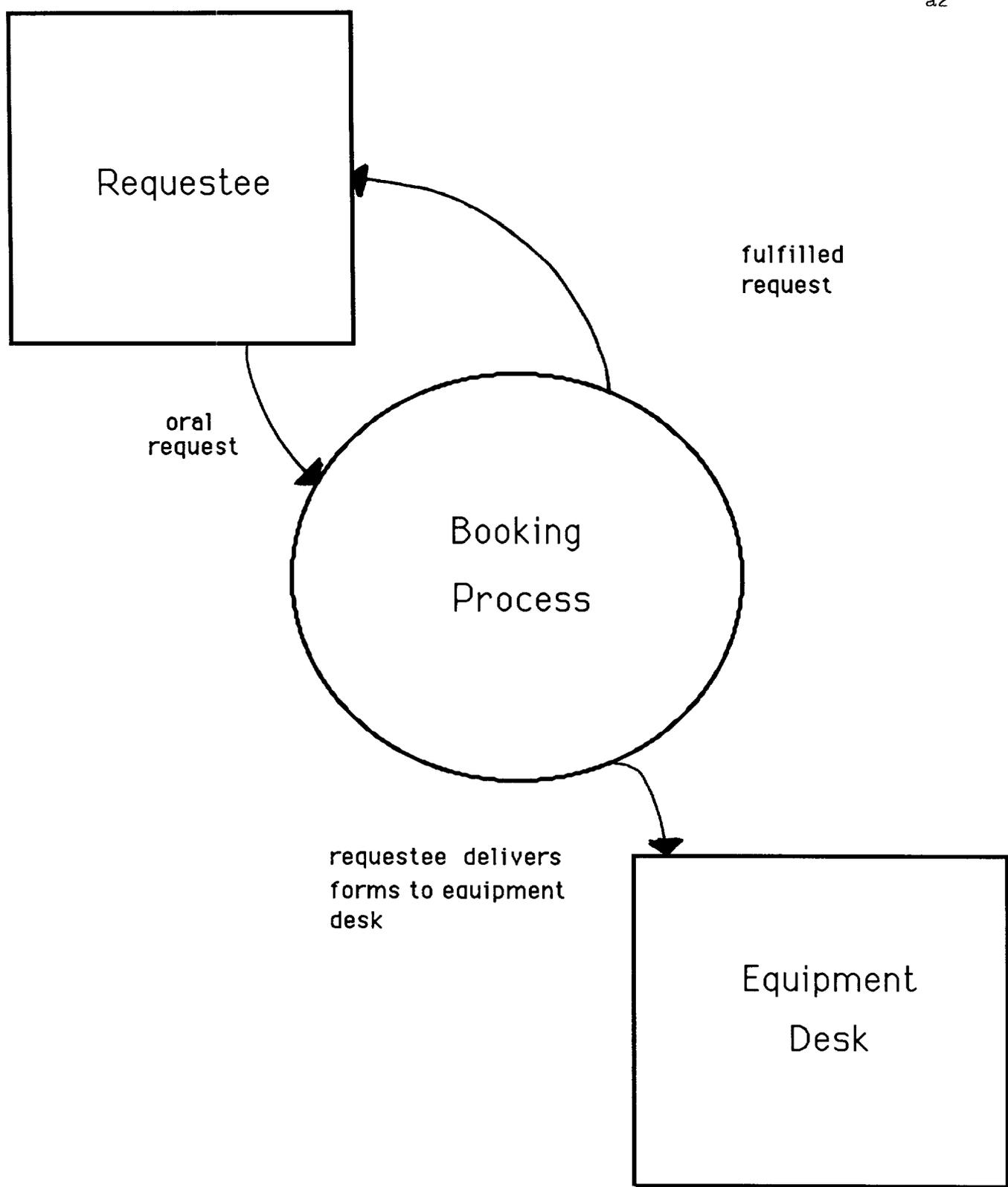
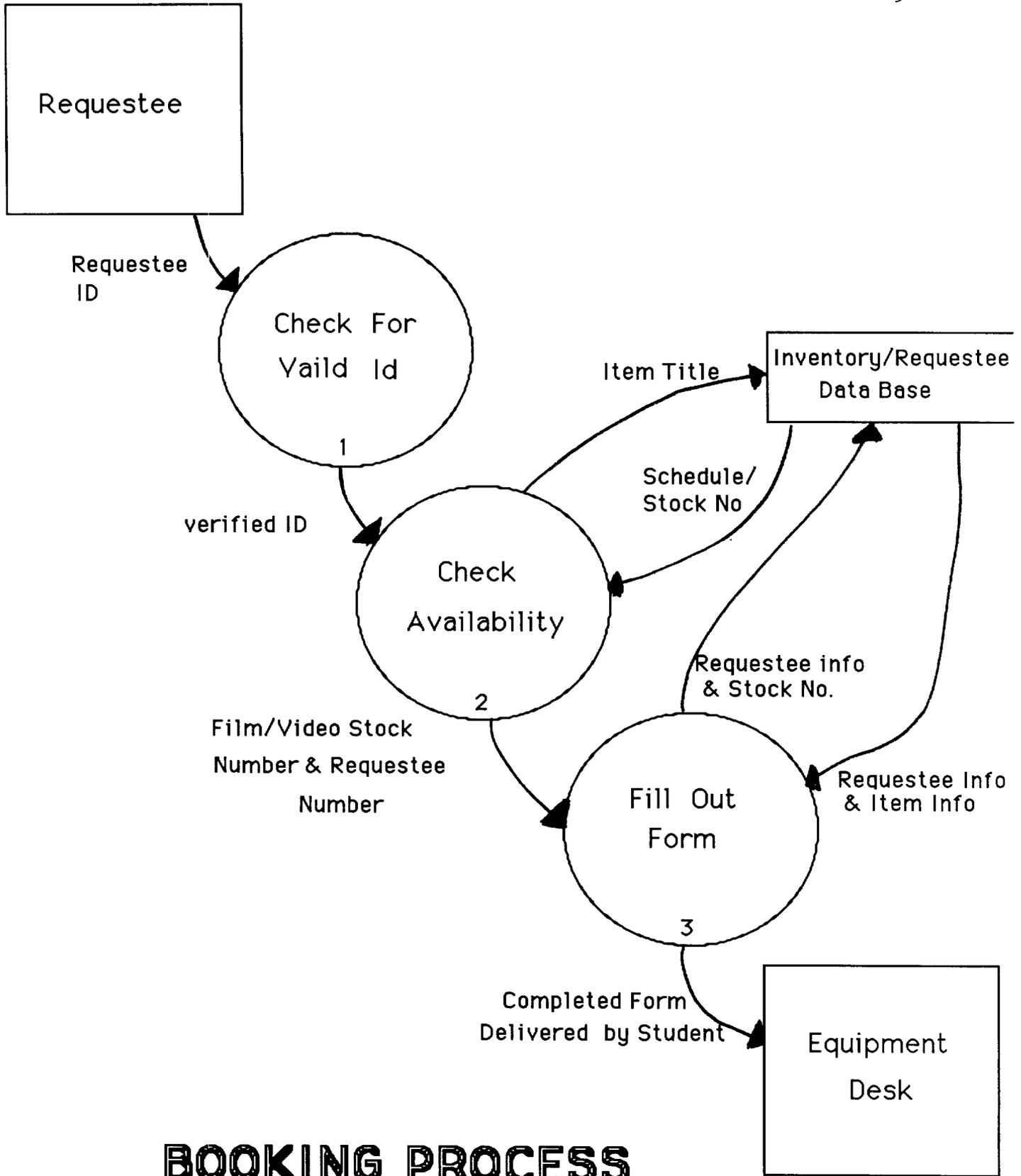# Appendix

APPENDIX A:

Structure Chart

Context Diagrams

Gantt Chart

a1

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              ┌─────────────────────────┐
              │   UNIVERSITY PRESIDENT   │
              │      John Worthen        │
              └─────────────────────────┘
                          │
              ┌─────────────────────────┐
              │         PROVOST          │
              │    Warren Vanderhill     │
              └─────────────────────────┘
                          │
              ┌─────────────────────────┐
              │ DEAN OF LIBRARY SERVICES │
              │      Michael Wood        │
              └─────────────────────────┘
                          │
              ┌─────────────────────────┐
              │  DIR OF PUBLIC SERVICES  │
              │        Tom Moore         │
              └─────────────────────────┘
                          │
              ┌─────────────────────────┐
              │  DIR OF EDUC. RESOURCES  │
              │      David Causel        │
              └─────────────────────────┘
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FILM ASSISTANT SUPERVISOR — Behrouz Kousari

HEAD BOOKING ASSISTANT — Sylvia Powers

EQUIPMENT SUPERVISOR — Basil Renberger

BOOKING ASSISTANT — Peggy Stoner

STUDENT ASSISTANTS

NIGHT EQUIP SUPERVISOR — Jeff Turner

STUDENT ASSISTANTS

Requestee

Booking
Process

Equipment
Desk

fulfilled
request

oral
request

requestee delivers
forms to equipment
desk

CONTEXT DIAGRAM

Requestee

Requestee
ID

Check For
Vaild Id

1

verified ID

Item Title

Inventory/Requestee
Data Base

Schedule/
Stock No

Check
Availability

2

Film/Video Stock
Number & Requestee
Number

Requestee info
& Stock No.

Fill Out
Form

3

Requestee Info
& Item Info
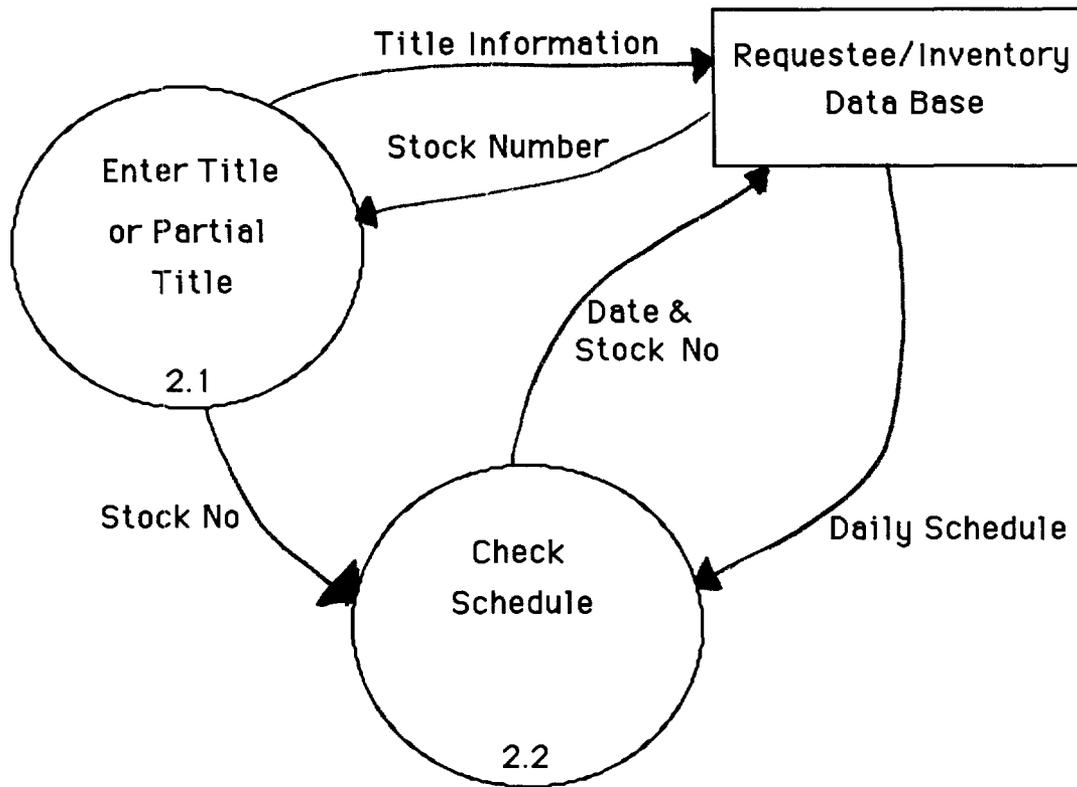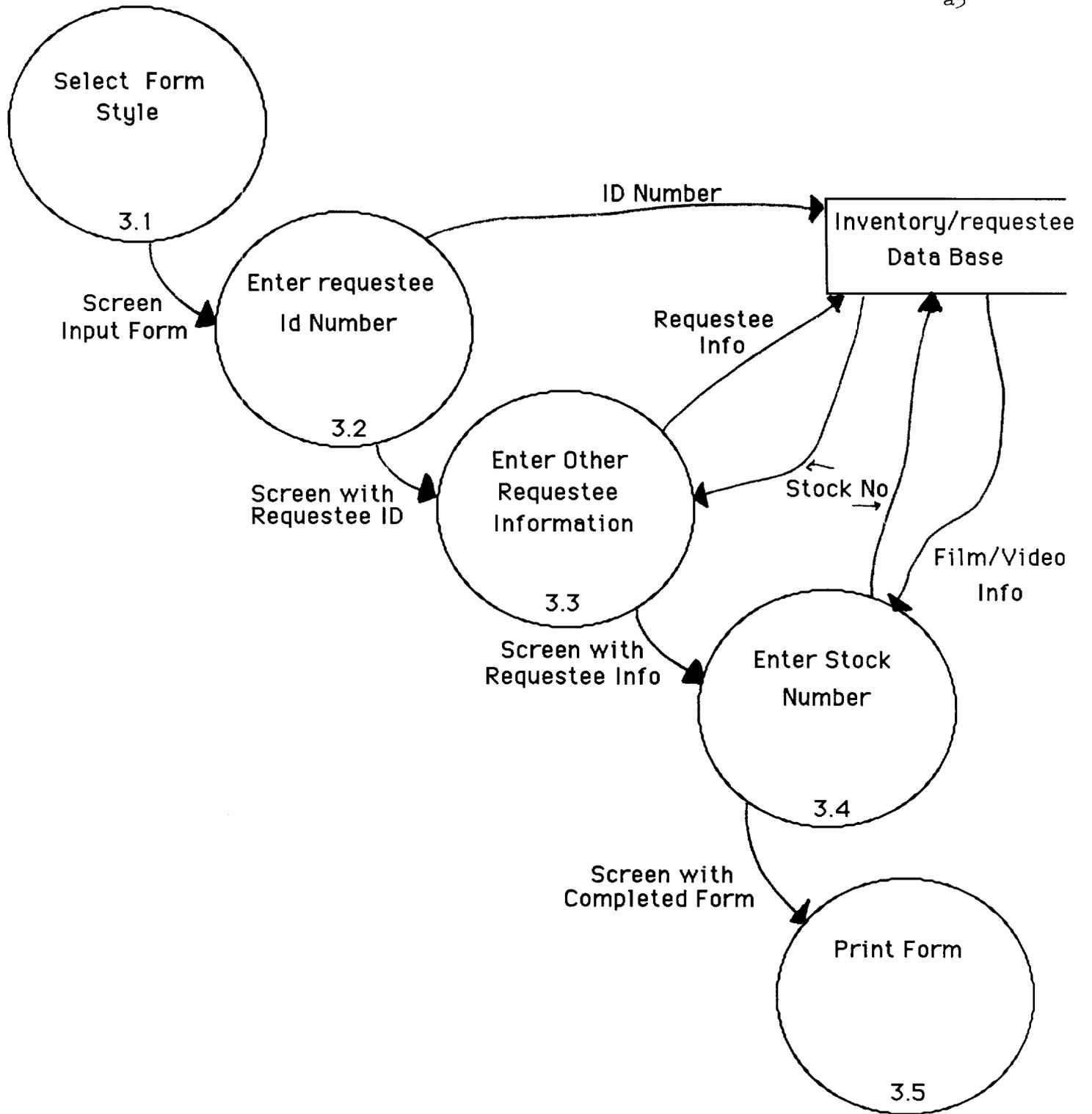
Completed Form
Delivered by Student

Equipment
Desk

BOOKING PROCESS
LEVEL 0

**Check Availability
Level 1**

Fill Out The Form
Level 1

GANTT CHART

This Gantt Chart presents the schedule of each major activity required for this project. The first three phases will be completed by the end of Fall Quarter, 1987. The Development Phase had to be extended three additional weeks because of Thanksgiving and Christmas holidays.

Weeks