CASE (B)

MAHARAJA COLLEGE'S GYMNATORIUM (MCG)
PREPARING FOR SYSTEMS ANALYSIS

GETTING APPROVAL FOR SYSTEMS DEVELOPMENT

The accounting division with guidance from Gupta and Tiwari, prepared a cost estimate of Rs. 20 Lacs to support the Information Systems plan. Mukul Gupta then requested sanction for this amount to support systems development effort. Realizing the urgency of this request, the Management Committee immediately allocated Rs. 12 Lacs, less than what was requested, but possibly enough to complete some of the higher-priority modules over the next year.

Mukul Gupta was elated and quickly got in touch his divisional heads and Neera to tell them the good news. The budget of Rs. 12 Lacs enables a substantial portion of the systems plan to be funded.

Then Mr. Gupta gave a general directive for systems work to begin immediately starting with the scheduling and ticketing system, and within two weeks, also the modules B, C and D. Mr. Gupta also had a meeting with Mr. Anoop Sarin, Head of Scheduling and ticketing department. He was told to get his people to interact with systems people first thing in the morning.

REQUESTING SYSTEMS ANALYSIS

Mr. Anoop Sarin called Neera Tiwari over the intercom and told her, "Well, it looks like we are ready to get started on my scheduling and ticketing system." "Yes, I heard, "Neera said, "What I'm going to do is to ask Sarita Kakkar, our chief systems analyst to get in touch with you. She will be able to get us off to a good start. Why don't I transfer your call to her office?"

"OK, thanks."
"Hello, Sarita Kakkar speaking."
"Oh, yes. Hi! I'm Anoop Sarin, Head of scheduling and ticket sales at the gymnatorium. Neera told me that you are going to do our systems work. Great to have you on our side.

"Thanks, I'm looking forward to working with you, "Sarita responded. "Actually, Anil Abraham, one of our systems analysts is all set to be with you this morning and prepare an information systems service request."

"Oh, I've already filled out one of those forms, "said Anoop.
"You know, the one we did for planning."

"No, that was a systems project request form that you people use for planning and for budgeting purpose, "responded Sarita. "The information systems service request form that you fill out for us is just that, a request from you for our service. It's a little more specific than what you did earlier, and it gives us a starting point and serves as an agreement, if you will, "between our users and the information systems group. It's a 'meeting of the minds,' so to speak."

"Another form?" complained Anoop, "I don't know anything about it or how to fill it out. And we just started using the systems project request form."

"Well, you know us, we couldn't operate without forms, "laughed Sarita. "Don't worry, Anil Abraham will help you fill it out. Then we can get started."

"Thanks, that will help me a lot," sighed Anoop, mentally relieved that he was going to receive help.

"By the way, "Sarita said, "As soon as my staff and I go over your information systems service request, we will start mapping out our work. One thing we will need to do at the start, I'm sure, will involve a great deal of interviewing of you and your people. Will you please make them available to us starting Tuesday at 8.00 AM.?"

"We're all set, "exclaimed Anoop.
"Fine. I'll see you Tuesday morning, "Sarita responded.
"Good-bye."
"Bye."

PREPARATION OF THE INFORMATION SYSTEMS SERVICE REQUEST FORM

Shortly after 10:30 that morning, Anil picked up his briefcase and went to Anoop's office.

"Hi, I'm Anil Abraham, one of the systems analysts from EDP department. I guess Sarita told you that I was coming to see you, "said Anil.

"Oh yes. pleased to meet you. "said Anoop. "I was on the phone with Sarita a little earlier this morning, and she told me that you were coming."

Great!" replied Anil. "If you're ready, we'll get started"

"Well," responded Anoop. "I've never been involved in a complete information systems overhaul as we're doing here. Where do I begin?"

"What would be helpful, "Anil explained, "is if you could start by telling me some of your basic and common problem."

"To begin with, "Anoop started, "we are having trouble with our seating system. There are times when the same seat is sold to at least two different people. All of us in this department feel that once is once too often and we try to do our best to keep the public happy. But this is now a common problem."

"So, you are having a ticket sales problem," said Anil.

"Aproblem?" exclaimed Anoop. "It's becoming a catastrophe! Some of our ushers came back with reports from several people recently that this was the worst program venue they had ever been to. Another thing, I've had five people in the last month personally call me up and tell me that they were sold tickets for the wrong program! I looked into the matter, and sure enough, they were sold tickets for the wrong program."

"Oh! God" remarked Anil. "I can see exactly what you mean. That would be enough to make practically anyone want to throw in the towel. You are having big problems with your scheduling of events and ticket system. Why don't we call the first project Scheduling and Ticketing System (STS)."

"Sounds good to me," said Anoop. "STS.....I like it "

"Why don't we get started on the information systems service request form?" prodded Anil.

"OK, I'm ready. What do you need to know first?"

Anil and Anoop spent over an hour filling out the infonnation systems service request form. It is displayed in EXHIBIT B-I.

PREPARATION AND PRESENTATION OF THE PROPOSAL TO CONDUCT SYSTEMS ANALYSIS REPORT

After going over the information systems service request form prepared by **Anoop** and Anil, **Sarita** talked with **Anoop** and some of his staff to get a **better** feel for the problems, **reasons** for the request and scope of the **project.** She and **Anil** worked **together** to define the **systems** project scope, **to determine** the study facts they would **need to** collect, and the sources of these facts. A schedule of **major** events **was** also **prepared. .**

EXHIBIT B-I Information systems service request form for
INFORMATION SYSTEMS SERVICE REQUEST

SYSTEM NAME: Scheduling and __x__ **NEW**   REQUESTED DATE:MM/DD/YY
Ticketing System (STS) __ REVISED   REQUIRED DATE: MM/DD/YY

ANTICIPATED BENEFITS:
* Schedule **with** more **accured** and **control** ticketing for **programs** for **gymnatorium.**
* Control the issuing and reserving of tickets.
* Account for and control **ticket** revenue.

OUTPUT	INPUT
1. TITLE: Program Schedule Report FREQUENCY: Weekly quantity: 4 copies COMMENT: Lists name of program, cost, date and duration, Ticketing queries about the same items shwld be provided.	1. **TITLE:** Program Input FREQUENCY: Random Quantity: 200 per year COMMENT: Includes seating requirements for program **beginnin** dale, ending date. and special **accommodations**
2. TITLE: Reservation Status and Ticket Control **Report** FREQUENCY: Weekly quanity: 4 copies COMMENT: **Lists** reservation by name and event, tickets logged by number. tickets issued and receipts. Online **inquires** about **same items** should be provided.	2. TITLE: Ticket Sales **FREQUENCY: Random** Quantity: Thousands per week COMMENT: Reservation from should include name of patron. number of reservations program name, ticket transaction log should contain **ticket number, date** and price.
3. TITLE : Profit and **Loss** Report FREQUENCY : Weekly quantity : 4 copies COMMENT: Lists revenue or expense **item** by event, **data** and type of revenue or expense incurred.	3. TITLE : Program Revenue and expense input FREQUENCY : Random Quantity 200 per year, COMMENT: Includes all expenses incurred for Program date for **expense** and amount and type of **expense.**
4. TITLE : Resources Inventory Listing FREQUENCY : **Weekly** quantity : 4 copies COMMENT : Lists available resources such as chairs, tables, lighting, staging products.	4. TITLE : Resources **Add/Change/** **Delete** FREQUENCY : Random Quantity : As **needed.** COMMENT: Input all equipment in stock at the **centre including** tables, chairs, lighting and staging products for inventory.

REQUESTED BY: MUKUL **GUPTA** DEPARTMENT: **TITLE: Director**
MCG : APPROVED BY : PRAN **SHARMA**   TITLE: Member. Mgmt. Committee

—x— APPROVED

_____ APPROVED ON CONDITION.   REASON: _____

```
_____   REJECTED REASON:_____

_____   SIGNATURE:_____   DEPARTMENT :   EDP
                                   TITLE         :   EDP Manager
                                   DATE          :   DD/MM/YY
```

* **COMMENTS: Sarita Kakkar** is the Chief **Systems Analyst** and her **assistant** is Anil **Abraham.** Systems Analysis begins next **Monday.** The systems analysis phase will take approximately two **weeks.** Please notify employees at the event centre to make themselves available for Sarita and **Anil** to interview. Full cooperation will expedite the systems analysis work and help to ensure a **successful** systems project.

Sarita and Anil worked late in the night to prepare the Proposal to Conduct Systems Analysis Report. Sarita knew from earlier bad **experiences** that typically one type of prospective systems users don't know exactly what they need, and the other type expects everything to be computerized on a personal computer **immediately.**

Sarita knew that if one tries to leapfrog **several** phases of the Structured Design Methodology, one nearly always winds up with a system **nobody wants** or needs. As a matter of fact, following the **lead** of typical users, and in essence letting them guide systems development, is similar to a doctor allowing a patient to guide surgical procedures or prescribe medicine.

So, to make sure that everybody is still on the same wavelength, the proposal to Conduct Systems Analysis Report, the first major documented deliverable in the SDM Process was presented both orally by Sarita and backed up by a written document.

ASSIGNMENT

Consider yourself to be in Sarita **Kakkar's** shoes. Based on 'the narrative and the filled form as shown in **EXMBIT** B-I. Write a crisp **formal** proposal to **conduct** systems analysis.

SOLUTION TO ASSIGNMENT IN MCG CASE (B)

A PROPOSAL TO CONDUCT SYSTEMS ANALYSIS

Month xx, 19xx

```
To         :   All Division Heads
From       :   Sarita Kakkar, Chief Systems Analyst
Subject    :   Scheduling and Ticketing System (STS)
Copies to  :   Mukul Gupta, Director, MCG and Neera Tiwari, EDP Manager
```

Reasons for the Analysis

The recent expansion of **the gymnatorium has** increased **the** frequency of program which **has** in turn, added to the complexity of hosting them. The **current** manual **information** system is not meeting the **information** needs of those **responsible** for implementing the gymnatorium's business plan.

Performance Requirements of the **Systems**

The **information** systems plan previously **completed** provides the basis for establishing the following users requirements for the information system:

1. **To** increase **organisation** integration

2. **To** improve **organisation communication**

3. **To** provide more timely reporting

4. **To** improve the quality of **service** to the public at large

5. **To** reduce expenses

6. **To increase** revenues.

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The systems analysis work will determine the feasibility and direction(s) of the information needs as outlined in the systems plan and the information systems service request form. The findings of systems analysis will be subsequently be recorded in the Systems Analysis Completion Report. We will be responsible for the delivery of this report within two weeks from beginning of the analysis. Responsibility for systems design will be determined at the end of this systems analysis phase. We solicit your support for this effort because it is critical to undertake such a development if we are to improve our current management situation.

Facts to be collected

To develop a complete picture of the proposed system, several details must be investigated further:

1. The sequence of steps and time required for each step in the process of hosting an event (Gantt or PERT chart).

2. Identify potential bottlenecks and a critical path for each type of event

3. Determine the feasibility of integration of information between departments.

4. Determine the type of report needed by each division and management for each type of program.

5. Identify problems that exist in the current system.

6. Collect possible solutions from users.

7. Determine the feasibility of computerisation as the solution.

8. Determine the opportunities and problems associated with each alternative system.

9. Determine the feasibility of in-house development.

10. Determine the impact on the gymnatorium's work culture.

11. Determine the timetable for development and implementation.

POTENTIAL SOURCES OF THE FACTS

The current organisation should be investigated fust to provide baseline information necessary for identifying any proposed enhancements, This falls into several specific categories:

1. The Present Information System: The gymnatorium currently has separate systems within each division. All are manual systems with the exception of accounting. We propose to evaluate the effectiveness of the present system to determine whether a new system should be developed or whether the current system should be modified. An analysis of the old system will provide a starting point for any new development and provide design ideas. Understanding the current system enables us to evaluate the resources necessary for modifying the current system or developing a new one. Familiarity with the current system will help in planning for the conversion to a new computer based information system.

2. Management and Employees of the Cymnatorium: The use of questionnaires, interviews and informal discussions with the stakeholders of the gymnatorium allows us to develop an understanding of the needs of the users and how the current system operates.

3. Current Paper Documentation: Accounting procedure manuals, financial statements, management policies, organisational charts, job descriptions and other forms of Paper evidence will be reviewed to determine how the organisation is operating and how it plans to operate. Current paper documentation will be used to reinforce the definition of relationship between the various divisions of the gymnatorium, interdivisional functions and people within the divisions.

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4. Contract with other Program Venues: Program Venues with similar characteristics will be contacted to determine the type of system they use. This will provide an insight to document the types of problems which might be encountered with alternative systems. It will also enable to gain an understanding of alternative solutions available.

SCHEDULE OF MAJOR EVENTS OR MILESTONES

The systems analysis will be undertaken as a series of tasks, each of which will have a specific scope and completion date.

1. Review of the current system, interviews with people and review of documentation will take approximately one person two weeks to complete and will be performed by Sarita Kakkar (80 person hours).

2. Contacting other programs venue will take approximately one person one week to complete and will be performed by Anil Abraham (40 person hours) concurrent with Task 1.

3. Analysis of facts, determine of feasibility, definition of user requirements and direction will take two people approximately two weeks to complete and be performed by both analysts (80 person hours) after completion of Tasks 1 and 2.

4. Study facts synthesis and the Systems Analysis Completion Report will another take two weeks to complete by both analysts (80 person hours) after completion of Task 3.

GANTT CHART
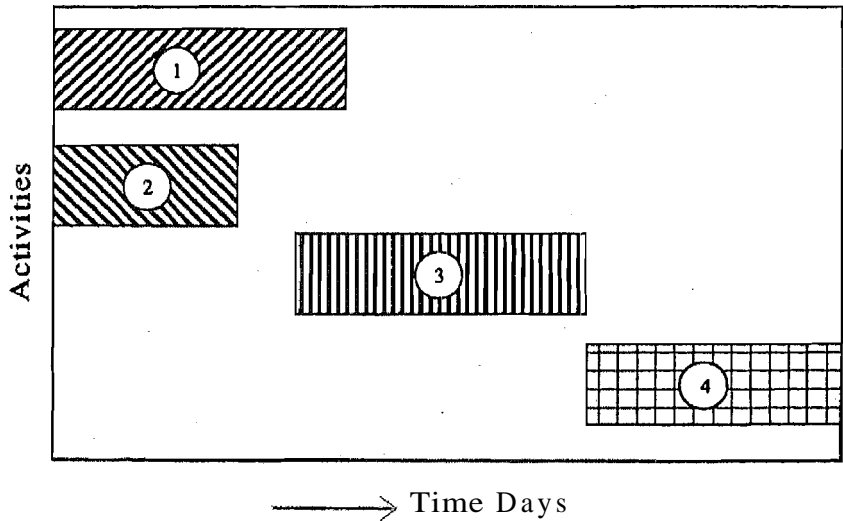
Based on our discussions in the past few weeks I feel that we must give serious consideration to beginning this analysis for STS as soon as possible, ideally, we should begin our analysis within the next two weeks so that we can have answers to the requirements issues prior to our next financial year.

CASE (C)

MAHARAJA COLLEGE'S GYMNATORIUM
SYSTEMS ANALYSIS COMPLETION

INTERVIEWING

Sarita did most of the interviewing. Some of the study facts that came out from these interviews arc shown in **EXHIBIT C-1** which was her interview with Feroze Ticketwallah.

Interviewee	:	Feroze Ticketwallah
Interviewer	:	Sarita Kakkar
Duties	:	Head Cashier, Ticket Sales
Date	:	Month dd, 19xx

As cashier at the ticket window, he **sees** that several obvious problems exist:

● Often difficult to determine from the charts how many seats are in a group (for telephonic reservations for a block of **seats)**, customers tend to get angry when it takes a few minutes to figure out what's available. In fact more than once customers have become angry and left without purchasing any tickets.

● Encountered numerous problems with having several people selling tickets **concurrently,** it's tough to keep two people from selling the same seat at **the** same time.

● The time delays are **especially difficult with** a group with young kids who get **problematic** at having to **wait** while their parents get tickets.

a Getting an accurate accounting of the money **collected** for each event only once a day is inefficient, management **needs** a **more** timely **report** but there **just** is not staff to do it.

a If **they** could only have a picture on a screen of the layout of the center with a sealing chart for a given event which all of the cashiers could see simultaneously. It would make it a lot easier to give the customers tickets for **good seals** as fast as **they** want them.

● Returning tickets create a **real** problem because you have to run around to all of the cardboard charts and correct the blocked out **seats.**

● Ticket takers are frustrated from being bullied around and yelled at by **angry** customers, impatient management and nosy accountants who need the results of what they do **faster,** faster, **faster......**

EXHIBIT C-I **Sarita's** Interview **Notes**

QUESTIONNAIRE

A questionnaire for clients of **gymnatorium** was sent out **to a** random sample of users. Sarita wanted to determine the nature of complaints and **gather** additional study facts to &sign **the** system **better. EXHIBIT C-II illustrates** this questionnaire.

MAHARAJA COLLEGE GYMNATORIUM
SCHEDULING AND TICKETING QUESTIONNAIRE

Dear Client :

As you know, we **have** enjoyed major expansion in **the MCG** recently. To serve you **better,** we need your help by answering the following **questions.**

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