This Graduate Project was approved by
Dr. Melvin H. McKinney as Project Advisor
and Dr. Allen Bush and Mr. David Perline
as Committee Member
INTRODUCTION

Today, a collection of interrelated data stores with minimum redundancy, modern data processing experts would call a data-base management system. A query system such as the one that can add data, retrieve, update, and generate reports of data from the data base. The more flexible and has a wide variety of data to work with the more sophisticated the query as the more complex the data base will be.

Data processing is a problem that deals heavily with data, but the data base organization is significant. I believe that the efficiency of the data-base management query system will be more efficient, service and economical for the hospital system in the future as the problem.

A base for this project was developed by using

Data Base System as a data base management system.

The second aspect of work, the concept of network approach provided by the

Micro Data Base Inc., Lafayette, Indiana.
Demonstration of Using LIST Command

. Demonstration of using LIST command with FIND
   Issue the PATH clause.

issue:

LIST DRNAME, FNAME, POMR THRU 31, HAS, WITH

Explanations: This query will generate the report of
each doctor. List the doctor and patient
name and medical record number.

command clauses are LIST
FIND clauses are DRNAME, FNAME, POMR
PATH clauses are THRU 31, HAS, WITH

<table>
<thead>
<tr>
<th>Drname</th>
<th>Fname</th>
<th>Pomr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARLES T. SMITH</td>
<td>KENNETH BROWN</td>
<td>35.0</td>
</tr>
<tr>
<td>FRANK MARTIN</td>
<td>F. T. BOYD</td>
<td>21.5</td>
</tr>
<tr>
<td>FRANK MARTIN</td>
<td>JAMES SPLOCK</td>
<td>21.3</td>
</tr>
<tr>
<td>VANCE J. MALONEY</td>
<td>ANN HOOD</td>
<td>44.7</td>
</tr>
<tr>
<td>VANCE J. MALONEY</td>
<td>JOHN WHITE</td>
<td>44.1</td>
</tr>
<tr>
<td>VANCE J. MALONEY</td>
<td>MARY JONES</td>
<td>44.25</td>
</tr>
</tbody>
</table>
2. Demonstration of using LIST command along with a
SET utility provided to set the desired report title. SET is
the utility provide to set the environmental parameters to
desired value. The syntax for using SET is:

   SET parameter = value

Query:

   SET TL = "Hospital Data Base System"

   LIST DNAME, PNAME, POMR THRU S1, HAS, WITH

Explanation: This query will generate report title as the
previous example except it includes the
report title.

Result:

HOSPITAL DATA BASE SYSTEM

<table>
<thead>
<tr>
<th>Dname</th>
<th>Pname</th>
<th>Pomr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARLES T. SMITH</td>
<td>KENNETH BROWN</td>
<td>35.0</td>
</tr>
<tr>
<td>FRANK MARTIN</td>
<td>E. T. BOYD</td>
<td>21.5</td>
</tr>
<tr>
<td>FRANK MARTIN</td>
<td>JAMES SPOCK</td>
<td>21.3</td>
</tr>
<tr>
<td>VANCE J. MALONEY</td>
<td>ANN HOOD</td>
<td>44.7</td>
</tr>
<tr>
<td>VANCE J. MALONEY</td>
<td>JOHN WHITE</td>
<td>44.1</td>
</tr>
<tr>
<td>VANCE J. MALONEY</td>
<td>MARY JONES</td>
<td>44.25</td>
</tr>
</tbody>
</table>
3. Demonstration of using LIST command with FIND clause, CONDITIONAL clause, and PATH clause by using the followingavana path PATH clause ( "1").

LIST FNAMN, SSN, ADMN FOR ADMN = "1" THRU 52, ADMIIT

Explanation: This query will generate report for all of the emergency patient admission code = 1, list the names social security numbers and admission codes.

```sql
SELECT * FROM LIST;
SELECT * INTO LIST clause and FIND clause and: FNAMN, SSN, ADMN.
CONDITION clause is : FOR ADMN = "1"
PATH clause is: THRU 52, ADMNIT.
```

---

<table>
<thead>
<tr>
<th>Pnamn</th>
<th>SSN</th>
<th>Admn</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. J. BOYD</td>
<td>081232888</td>
<td>1</td>
</tr>
<tr>
<td>NAMES SPOCK</td>
<td>090811999</td>
<td>1</td>
</tr>
</tbody>
</table>
4. Demonstration of LIST command with FIND clause, CONDITIONAL clause, and PATH clause with the arithmetic operator "GE".

Query:

LIST PHONE, AGE, DADM FOR AGE GE "50" THRU 52, WITH

Explanation: This query will generate a report of a patient whose age is greater than 50 years old and had been admitted on July 4th 1992.

CONDITIONAL clause is: LIST.
HOW or FIND clause are: PHONE, AGE, DADM
CONDITIONAL clause is: FOR AGE GE "50"
PATH clauses are: THRU 52, WITH
6. Demonstration of using the LIST command for navigation through the data base allows access to all paths in any direction. This query will retrieve all records in the data base.

Query:

LIST ADMNO, PNAME, DNAME, POMR, AND THRU SJ, ADMIT, DHAS, WITH, PROVIDE

Explanation: This query will generate a report of admission numbers, patient names, doctor names, and patient's medical records.

COMMAND clause is: LIST

Terms in FIND clause are: ADMNO, PNAME, POMR, AND
PATH clause is: SJ, ADMIT, DHAS, WITH, PROVIDE

HOSPITAL DATA BASE SYSTEM

<table>
<thead>
<tr>
<th>ADM-NO</th>
<th>PATIENT NAME</th>
<th>DOCTOR NAME</th>
<th>POMR</th>
<th>Ano</th>
</tr>
</thead>
<tbody>
<tr>
<td>1111</td>
<td>JAMES SPOCK</td>
<td>FRANK MARTIN</td>
<td>21.3</td>
<td>12345</td>
</tr>
<tr>
<td>2121</td>
<td>E. T. BWAY</td>
<td>FRANK MARTIN</td>
<td>21.5</td>
<td>23456</td>
</tr>
<tr>
<td>3131</td>
<td>JOHN WHITE</td>
<td>VANCE J. MALONEY</td>
<td>44.1</td>
<td>34456</td>
</tr>
<tr>
<td>4141</td>
<td>KENNETH BROWN</td>
<td>CHARLES T. SMITH</td>
<td>35.0</td>
<td>44536</td>
</tr>
<tr>
<td>5252</td>
<td>ANN HODD</td>
<td>VANCE J. MALONEY</td>
<td>44.7</td>
<td>53345</td>
</tr>
<tr>
<td>6242</td>
<td>MARY JONES</td>
<td>VANCE J. MALONEY</td>
<td>44.25</td>
<td>67234</td>
</tr>
</tbody>
</table>
WRITE PNAME, DNAME, PCOD FOR PCOD = "2" THRU S2, >HAS, PAY
F. T. BOYD
FRANK MARTIN

JOHN WHITE
VANCE J. MALONEY

MARY JONES
VANCE J. MALONEY

-->
and it then incorporates these changes.

In the mid-1980s, the AOCS worked with

numerous organizations to develop

standards for the AOCS method.

In the late 1980s, the AOCS

developed standards for the AOCS

method.

In the early 1990s, the AOCS

developed standards for the AOCS

method.

In the mid-1990s, the AOCS

developed standards for the AOCS

method.

In the late 1990s, the AOCS

developed standards for the AOCS

method.

In the early 2000s, the AOCS

developed standards for the AOCS

method.

In the mid-2000s, the AOCS

developed standards for the AOCS

method.

In the late 2000s, the AOCS

developed standards for the AOCS

method.

In the early 2010s, the AOCS

developed standards for the AOCS

method.

In the mid-2010s, the AOCS

developed standards for the AOCS

method.

In the late 2010s, the AOCS

developed standards for the AOCS

method.

In the early 2020s, the AOCS

developed standards for the AOCS

method.

In the mid-2020s, the AOCS

developed standards for the AOCS

method.

In the late 2020s, the AOCS

developed standards for the AOCS

method.
2. Demonstration of statistical analysis of more than one term in a query.

Query:

STATS FOOD, AMT FOR FOOD = "1" THRU 50

Explanation: The statistical analysis generated from this query is to determine how many patients have not paid on their account (per code = 1), and do statistical analysis of the unpaid amount.

COMPUTE clause is: STATS
Terms in FIND clause are: FOOD, AMT
CONDITIONAL clause is: FOR FOOD = "1"
PATH clause is: 50

RESULT

1: Food
   Number of observations: 2

2: Amt
   Number of observations: 2
   Maximum: 4950.00000000
   Minimum: 220.00000000
   Sum: 5170.00000000
   Mean: 2585.00000000
   Variance: 2714256.00000000
   Standard Deviation: 1649.00737747
Demonstration of Change Command

A demonstration of using the Change command to changing only one data item.

Query:

CHANGE ADMC FOR PNAME = "E. T. BOYD" THRU S3, ADMIT

Explanation: This query will change the admission status from emergency patient (admission code = 1) to regular patient (admission code = 2). The changing process demonstrated as:

BEFORE the change, the data is:

<table>
<thead>
<tr>
<th>Admin</th>
<th>Admc</th>
<th>Pname</th>
</tr>
</thead>
<tbody>
<tr>
<td>2171</td>
<td>1</td>
<td>E. T. BOYD</td>
</tr>
</tbody>
</table>

WHILE doing the change:

- CHANGE ADMC FOR PNAME = "E. T. BOYD" THRU S3, ADMIT
  Old Value: 1
  New Value: 2
  1 Changes Made
AFTER the change, the data is:

<table>
<thead>
<tr>
<th>Addmno</th>
<th>Admc</th>
<th>Fname</th>
</tr>
</thead>
<tbody>
<tr>
<td>2121</td>
<td>2</td>
<td>E. T. BOYD</td>
</tr>
</tbody>
</table>
2. Demonstration of using CHANGE command to change all items under specify data item.

Query:

```
CHANGE DDCM FOR DNAME = "VANCE J. MALONEY" THRU 51, HAS, NITH
```

Explanation: this query will change the discharge date of some patient's medical records. The changing process is demonstrated step by step as:

```
Dname       Pname       Pnum    Ddcm
VANCE J. MALONEY  ANN HOOD    44.7     SEP 5 1982
VANCE J. MALONEY  JOHN WHITE  44.1     SEP 16 1980
VANCE J. MALONEY  MARY JONES  44.25    DEC 4 1982
```

when doing the change:

```
-->CHANGE DDCM FOR DNAME = "VANCE J. MALONEY" THRU 51, HAS, NITH
Old Value: SEP 5 1982
New Value: SEP 7 1982
Old Value: SEP 16 1980
New Value: DEC 4 1982
New Value: DEC 9 1982
? Changes Made
```
AFTER the change, result is:

<table>
<thead>
<tr>
<th>Dname</th>
<th>Pname</th>
<th>Pomr</th>
<th>Ddch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vance J. Maloney</td>
<td>Ann Hood</td>
<td>44.7</td>
<td>Sep. 7 1982</td>
</tr>
<tr>
<td>Vance J. Maloney</td>
<td>John White</td>
<td>44.1</td>
<td>Sep. 16 1980</td>
</tr>
<tr>
<td>Vance J. Maloney</td>
<td>Mary Jones</td>
<td>44.25</td>
<td>Dec. 9 1982</td>
</tr>
</tbody>
</table>