CHAPTER VII
RESULTS AND DISCUSSION

Comparison of Cube Queries

Oracle SQL

Table: 7.1 Comparison of Cube queries

<table>
<thead>
<tr>
<th>Selection of Variable size</th>
<th>No. of. Rows selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select item_name, color, size 1, Sum (number1) from sales group by cube (item_name,color,size1)</td>
<td>60</td>
</tr>
<tr>
<td>Select item_name,color,sum(number1) from sales group by cube (item_name,color)</td>
<td>30</td>
</tr>
<tr>
<td>Select item_name, color,size 1, sum(number1) from sales group by rollup(item_name,color,size1)</td>
<td>46</td>
</tr>
<tr>
<td>Select item_name,sum(number1) from sales group by rollup(item_name)</td>
<td>6</td>
</tr>
<tr>
<td>Select color,size 1, sum(number1) from sales by rollup(color,size1)</td>
<td>9</td>
</tr>
</tbody>
</table>

Datamining Decision Tree
Figure: 7.1 Datamining decision Tree creation

Figure: 7.2 Datamining decision Tree Analysis
Case I:-

The below analysis providing detailed research about creating decision tree through rapid miner.

Step 1:

From the below screen shot able to see new database has been created and named as “Research DB” Decision Tree

Step 2:

Attaching new records in to DB
Status infor [Customer Information]
Type info[Owner]
Boolean Type
Size[N] ->N->

Figure: 7.3 New Customer records in to Analysis
Figure: 7.4 Input to Decision tree

Input side of the Decision Subtree

Table: 7.2 Decision tree input format

<table>
<thead>
<tr>
<th>S.no</th>
<th>Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>R</td>
</tr>
</tbody>
</table>

AI/C=PŘA+PRĄ+ŔRA

Vehicle Status=F(A,V,Al)

APT.£[0,1] Type Boolean
Annual Income £[0,0.5,1] Type ternary
Villa £[0,1] Type Boolean →V=Ă
Car £[0,1] Type Boolean
Table: 7.3 Output from Decision tree

<table>
<thead>
<tr>
<th>Customer</th>
<th>Decision Car</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>C2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C3</td>
<td>1</td>
<td>0</td>
<td>0.5</td>
<td>1</td>
</tr>
</tbody>
</table>

Case II

Weather forecasting system this information about occurrence of wind alone may not be suffice in some countries and non-occurrence on a particular day/time also needs to be delivered since no wind creates a smog in ICY regions[Ex Japn,Russia,etc..]

Figure: 7.5 ODBC drivers for Datamining Analysis

List ODBC drivers available for to data mining analysis
Figure: 7.6 List of Database connections for Datamining analysis

Figure: 7.7 Datamining command analysis in Graphical representation
Datamining command runtime Statistics

Figure: 7.8 Datamining command runtime Statistics

Graph

Figure: 7.9 Datamining command output in cube format graph
Rapid Minor Output

Figure: 7.10 Datamining mining command analysis output in rapiminer

Average calculation run through rapid Miner Data view is shown in Figure 7.10

Figure: 7.11 Range Analysis in Datamining with rapid miner
Plot view in Rapid Analysis

Figure: 7.12 Datamining Plot view Analysis through rapid miner

Advanced Graph

Figure: 7.13 Datamining statistics analysis