International Journal of Recent Technology and Engineering (IJRTE)
ISSN: 2277-3878, Volume-2 Issue-4, September 2013

Fiscal Implementation of Encoding and Decoding Schema for Graph Mining Technique using Realtime Data Base Management System

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Abstract- Graph mining in DatabaseBaseManagementSystem has become an important topic of research recently because of numerous applications to a wide variety of identification problems in current educational system. Nowadays Graphs play a vital role everywhere, occupying the social networks and mobile networks to biological net-works and the World Wide Web. Mining big graphs leads too many interesting applications including marketing, news groups, community mining, and many more. In this paper we describe a technique for the implementation of encoding schema problem for confidentiality management to a Graph Mining pattern. Our findings include designs to survey different aspects of graph mining and encoding-decoding environment, and provide a compendium for other researchers in the field. The results are revealed for selecting the optimized encoding and decoding schema for the cricket player identification based implemenation towards selection strategies. In the future we will extend our research to propose a Graph-Analysis Implementer for any real-time complex entities.

Keywords- Graph mining, Graph pattern, Graph template, Graph learning.

I. INTRODUCTION

A graph is set of nodes, pairs of which might be connected by edges. In a wide array of disciplines, data can be intuitively cast into this format [1]. For example, computer network consist of routers/computers (nodes) and the links (edges) between them. Social networks consist of individuals and their interconnections (which could be business relationships or kinship or trust, etc) [2]. Protein interaction networks link proteins which must work together to perform some particular biological function. Graphs are seemingly ubiquitous. The problems of detecting abnormalities (outliers) in a given graph and of generating synthetic but realistic graphs have received considerable attention recently[3].Identifying tightly coupled pattern to the problem of finding the distinguishing characteristics of real-world graphs, that is, the patterns that show up frequently in such graphs and can thus be considered as marks of realism. A good generator will create graphs which match these patterns. Patterns and generators are important for many applications [4].Detection of abnormal sub graphs/edges/nodes. Abnormalities should deviate from the normal patterns so understanding the patterns of naturally occurring graphs is a prerequisite for detection of such outliers [6].Simulation studies.

Manuscript Received on September,2013.
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Algorithms meant for large real-world graphs can be tested on synthetic graphs which look like the original graphs. [5].Realism of samples. We might want to build a small sample graph that is similar to a given large graph. This smaller graph needs to match the patterns of the large graph to be realistic. Graph compression. Graph patterns represent regularities in the data. This can be used to better compress the data.

II. PROPOSED METHODOLOGY

A character encoding system consists of a code that pairs each character from a given repertoire with something else such as a bitpattern, sequence of natural numbers, octets, or electrical pulses in order to facilitate the transmission of data (generally numbers or text) through telecommunication networks or for data storage. Other terms such as character set, character map, codeset, andcode page are used almost interchangeably.

For example, consider the cricket player selection in a confidentila manner based on the requirement with the corresponding seniority.The decision making person who decides to select must use a particular coding schema for identifying the appropriate player with the maximum levelof security maintanance. Otherwise corrupted person can choose to spend more money or commercial marketing to several individuals if that person has many social connections. Thus, by considering the interactions between players, selection board and marketing brokers may obtain higher profits than skillfull player, which ignores the key level of honestfull selection .

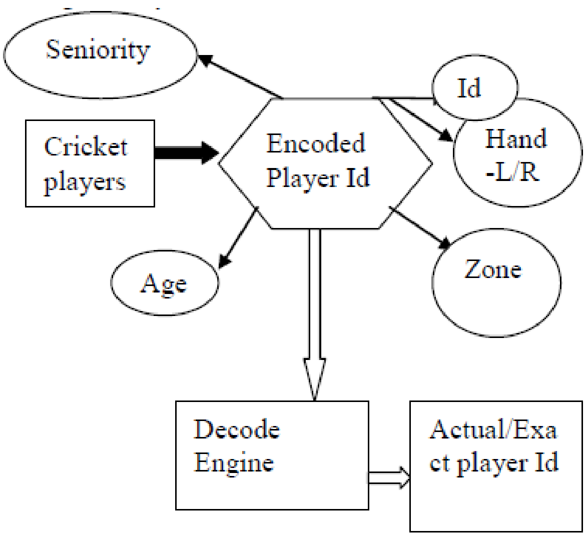

Fig 1: Encoding Schema for Graph mining

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In computers, encoding is the process of putting a sequence of characters (letters, numbers, punctuation, and certain symbols) into a specialized format for efficient transmission or storage. Decoding is the opposite process the conversion of an encoded format back into the original sequence of characters. Encoding and decoding are used in data communications, networking, and storage. The term is especially applicable to wireless communications systems.

The code used by most computers for text files is known as ASCII (American Standard Code for Information Interchange, pronounced ASK-ee). ASCII can depict uppercase and lowercase alphabetic characters, numerals, punctuation marks, and common symbols. Other commonly-used codes include Unicode, BinHex, Uuencode, and MIME. In data communications, Manchester encoding is a special form of encoding in which the binary digits (bits) represent the transitions between high and low logic states. In radio communications, numerous encoding and decoding methods exist, some of which are used only by specialized groups of people . The oldest code of all, originally employed in the landline telegraph during the 19th century, is theMorse code.

The terms encoding and decoding are often used in reference to the processes of analog-to-digital conversion and digital-to-analog conversion. In this sense, these terms can apply to any form of data, including text, images, audio, video, multimedia, computer programs, or signals in sensors, telemetry, and control systems. Encoding should not be confused withencryption, a process in which data is deliberately altered so as to conceal its content. Encryption can be done without changing the particular code that the content is in, and encoding can be done without deliberately concealing the content.

The age for the players can be represented as

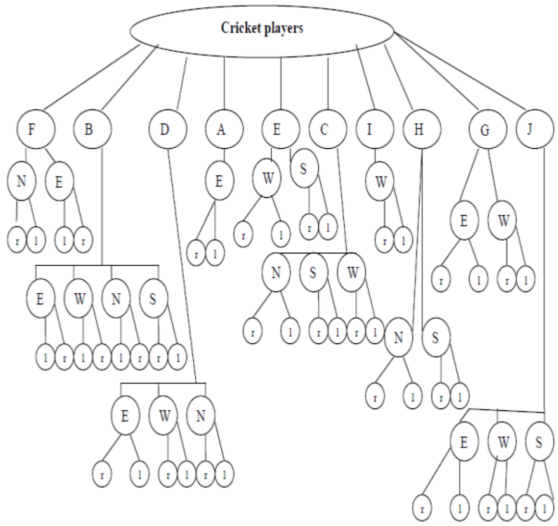

Fig 2: Graph structure for Cricket Player Database Management system

III. METHODOLOGY IMPLEMENTATION

A,B,C,D,E,F,G,H,I and J
and the Zonal areas are
East,
West,
North and
South
in which equal priority must be given throughout the country if possible together with the skill as
Right or
Left handed Player.
The player selection is a standard one so that the Age ,Zone and skill are considered for the basic requirements.

Graph Encoding and Decoding Schema:

The problem of identifying the efficient player in a confidential process must include a standard encoding and decoding schema which perform graph matching is that of finding either an appropriate or a one-to-one correspondence requiremnet among the nodes of the graph. This correspondence is based on one or more of the following structural characteristics of the graph:
The proposed Identification problem model is as follows,

Step 1: Sort the nodes in terms of age in ascending order.

A=18,

B=19,

C=20,

D=21,

E=22,

F=23,

G=24,

H=25,

I=26,

J=27.

Step 2: Assign the Zone values with customized key values.

ZONE ASSIGNMENT

EAST=1

WEST=10

NORTH=100

SOUTH=1000

In order to provide unique computation this assignment can be implemented,other alternate assignmnts are usage of relative prime numbers for avoiding ambiguity.

Step 3: Boolean representation for Left /Right Hand player in unified manner.

LEFT HAND PLAYER=0

RIGHT HAND PLAYER=1

Step 4: Identify the required pattern matching with reverse mapping strategies.

TABLE I
ZONE COMPUTATION TABLE

Zone combination	Key calculation	Reverse Order in four digit format with '0' suffix
E	1	1000
W	10	0100
N	100	0010
S	1000	0001
EW	11	1100
EN	101	1010
ES	1001	1001
WN	110	0110
WS	1010	0101
NS	1100	0011
EWN	111	1110
EWS	1011	1101
ENS	1101	1011
WNS	1110	0111
EWNS	1111	1111

We can easily identify that in the reverse oder the zone order EWNS are directly mapped with corresponding 0 or 1 value.

Step 5: Select the appropriate player based on the criterion matching.

X = Sort(Xi) ∀ iε N

Y = X(Ki) ∀ iε N

Z = 0 if Xi= Left Hand Player
1 if Xi=Right Hand Player

Requirement R=Max Xi~ (X ∩ Y ∩ Z)

IV. IMPLEMENTATION RESULT

Now applying the Graph matching pattern analysis we attain the following results, Select the players from the zones except East and West with an Age of 20 as a Left Hand Player.

Solution:

Encoding

Age=20 which implies 'C'
Zone=Non East and Non West which implies NorthSouth=NS,
such that NS=0110
Player Type=Left Hand Player=0
Player ID (Unique) number in the Seniroty List=Id
Therefore the encoded format is C01100Id

Decoding

C represents Age=20
0110 and the reverse order is 0110
which represents North and South Zone
Remaining 0 represents the Player must be a Left Hand Player.
Id-Unique Player name.

Hence the player identification is executed successfully.

V. CONCLUSION

In this paper we describe the methodology for implementing a well defined encoding and decoding schema problem to a Graph pattern, These are only some of the models with modular nature to implement it directly; there are many other models which add new ideas or combine existing models in novel ways. We have looked at many of these and discussed their strengths and weaknesses. The overall method proves to be highly efficient compared to mining significant and open trees, dramatically reducing running time and number of features mined. Moreover, the experimental results revealed that the expressiveness of Graph matching Node impact influence optimization representatives is significantly higher than that of open trees, because a lower number of features are associated with better accuracy, mainly due to higher specificity, reducing false alarms in classification tasks. In the future we will extend our research to propose a Graph-Analysis Implementer for any real-time complex entities.

REFERENCES

1. J. Leskovec, K. J. Lang, A. Dasgupta, and M. W. Ma-honey. Statistical properties of community structure in large social and information networks. In WWW, pages 695-704, 2008.
2. C. Liu, F. Guo, and C. Faloutsos. Bbm: Bayesian browsing model from petabyte-scale data. In KDD, pages 537-546, 2009.
3. Y. Low, J. Gonzalez, A. Kyrola, D. Bick son, C. Guestrin, and J. M. Heller stein. Graph lab: A new framework for parallel machine learning. In UAI, pages 340-349, 2010.
4. R. Gemulla, E. Nijkamp, P. Haas, and Y. Sisma-nis. Large-scale matrix factorization with distributed stochastic gradient descent. In Proceedings of the 17th ACM SIGKDD international conference on Knowledge discovery and data mining, pages 69-77. ACM, 2011.
5. A. Ghoting, R. Krishnamurthy, E. P. D. Pednault,B. Reinwald, V. Sindhwani, S. Tatikonda, Y. Tian,and S. Vaithyanathan. System: Declarative machine learning on map reduce. In ICDE, pages 231-242, 2011
6. U. Kang, H. Tong, J. Sun, C.-Y. Lin and C. Faloutsos.Gbase: an ancient analysis platform for large graphs.VLDB J., 21(5):637-650, 2012.
7. Dr.S.P.Victor,Antony Sundar singh:" Design and Development of Abstractness in Graph Mining Technique using Structural Datum "-IJSCE-Vol-3,Issue-3-Jun-2013.
8. http://www.elsevierdirect.com/companions/9780123814791 /chapters_from_the_second_edition/chapter_9.pdf

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