

Ahsanullah University of Science and Technology (AUST)

Department of Computer Science and Engineering

Project Proposal

Course No.: CSE4126

Course Title: Distributed Database Systems Lab

Submitted To-

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Classification of Football Teams on Relegation Battle

Task Approach:

There are different football leagues where each season different teams participate representing various clubs. Throughout one season, the poorly performing teams have to face relegation battles and in some leagues, the three teams with least points are relegated while some others survive. In this project work, using the K Nearest Neighbor classification approach, teams will be classified as Relegation Survivor or Relegated based on different criteria in regards to the information from previous seasons.

Database Schema:

Global Schema

Teamlist(teamID, teamName, country, seasonId)

PerformanceList(perID, teamID, win, lost, draw, gf,ga,points)

RelegationBattle(relID,perID, rbStatus)

RecordList(recID,win,lost,draw,gf,ga,points, predictedStatus)

Fragmentation Schema

Teamlist₁= $SL_{SeasonID=1}$ Teamlist

Teamlist₂= SL_{SeasonID=2} Teamlist

Teamlist₃= SL_{SeasonID=3} Teamlist

PerformaceList₁= SL_{points<35} PerformanceList

PerformaceList₂= SL_{points>=35} PerformanceList

Allocation Schema

Teamlist₁, Teamlist₂, PerformaceList₁, PerformaceList₂, RelegationBattle, Record at sites 1, 2

Significance of Distributed Database System:

While working on classification approach, the most important task is to maintain the data properly so that the approach can make proper predictions. Distributed database systems allow data decentralization which can help with classification tasks. Scaling can be done more conveniently in distributed systems without making huge changes to the whole system. Data maintenance, expansion, reliability can be ensured more efficiently for classification tasks with distributed systems compared to centralized systems.