# GRAPH THEORY PROSIT 8

## **KEY WORDS;**

* DATA CENTER
* ENERGY MANAGEMENT
* SERVERS
* TIME INTERVAL
* OVERLAPPING
* SCHEDULING TASKS
* GRAPHS(CORDAL)
* NP-COMPLETE PROBLEM
* CHROMATIC NUMBER
* GLUTTONOUS ALGORITHM

## **CONTEXT**

SombraTech is working on optimizing energy consumption in data centers by efficiently scheduling tasks on servers using a graph-based approach with chordal graphs and a greedy algorithm.

## **CONSTRAINTS**

* GLUTTONOUS ALGORITHM
* USING PYTHON
* MUST BE A CORDAL GRAPH
* DATA SET

## **PROBLEM STATEMENT**

How can we effectively schedule tasks on servers in a data center to minimize energy consumption while ensuring that all tasks are executed within their specified time intervals?

## **DELIVERABLES**

GRAPH REPRESENTATION.

## **SOLUTION APPROACH**

GLUTTONOUS ALGORITHM

LEARNING COMPUTATIONAL COMPLEXITIES(NP)

## **ACTION PLAN**

STUDY GRAPHS, GRAPH THEORY, GLUTTONOUS ALGORITHM

STUDYING COMPUTATIONAL COMPLEXITIES

ANALYZE THE DATASET

SIMULATE GRAPH IN PYTHON

FIND THE RIGHT REPRESENTATION.