15-110 recitation 09

Recap

- graphs, representation, searching, BFS/DFS
- Tractability, TSP,
- P v. NP

Reminders!

- HW 4 due Monday!
- **Exam 2** next Friday!

Problems

Graphs + DFS practice

Draw the graph represented by this dictionary. Then trace a depth first search on the graph starting at A.

```
Graph_dict =
 {
    A: [B, C, E]
    B: [A, D, E]
    C: [A]
    D: [B]
    E: [B, A]
}
```

Tractable v. Intractable

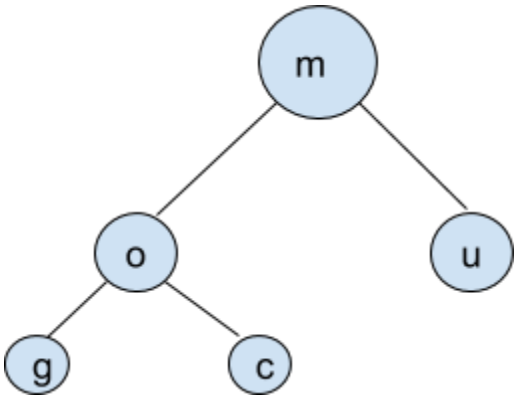
Problem
Sudoku solving
Finding a way to visit every node in a graph exactly once
Search an unsorted list

Figure out the minimum number of bins to store items with a certain size into bins which can only take a fixed size.
Sum all the values in a dictionary.

more trees & graph practice!

Learning Objectives

Given this tree, write a function that will visit the nodes such that each time the value at the node is printed, it prints "gocmu"




```
def inorder (tree)
```