

UCS1504 - Artificial Intelligence Lab
Department of CSE, SSN College of Engineering

1. Uninformed Search Strategies – BF's & DFS

18.08.2022

You are given a box with a combination of two-color balls (RED, GREEN). Assume that you are counting the balls in the box as a sequence of ODD and EVEN numbers for RED and GREEN respectively.

Write a python function for the following as per user choice:

1. Write a function to generate a sequence for n balls as states and print the same
2. Use a suitable data structure to keep track of the parent of every state and show the structure as a state space representation
3. Write a function to print the sequence of states and actions from the initial state to the goal state using BFS with suitable data structure
4. Write a function to print the sequence of states and actions from the initial state to the goal state using DFS with suitable data structure

Content to be written in **Observation** for output verification:

- i. Date
- ii. Ex. No
- iii. Title
- iv. Aim
- v. Data structure used (with justification)
- vi. Logic applied or Algorithm (short description)
- vii. Sample input and output