

UCT31021 – PRACTICAL FOR ARTIFICIAL INTELLIGENCE
DEPARTMENT OF ICT
FACULTY OF TECHNOLOGY
SOUTH EASTERN UNIVERSITY OF SRILANKA

Lab sheet: 12

Date: 12-06-2025

Title: Basic Machine Learning Model

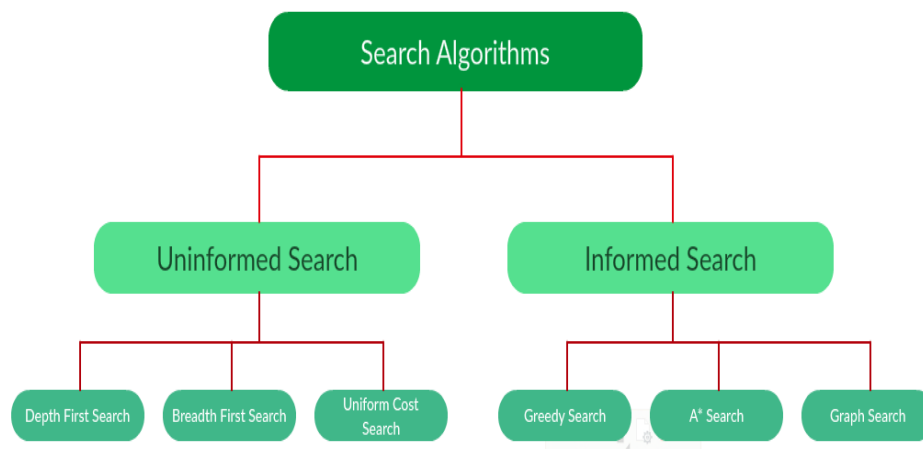
Aims:

- Work with Search Algorithm Practically
- Understand DFS & BFS

Understanding:

Types of search algorithms:

There are far too many powerful search algorithms out there to fit in a single article. Instead, this article will discuss six of the fundamental search algorithms, divided into two categories, as shown below.



Uninformed Search Algorithms:

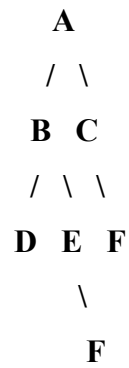
The search algorithms in this section have no additional information on the goal node other than the one provided in the problem definition. The plans to reach the goal state from the start state differ only by the order and/or length of actions. Uninformed search is also called Blind search.

The following uninformed search algorithms are discussed in this section.

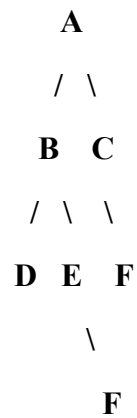
- ✓ Depth First Search
- ✓ Breadth First Search
- ✓ Uniform Cost Search

Task-01:

1. Write a Program to Implement Breadth First Search using Python.



2. Write a Program to Implement Depth First Search using Python.



Group Assignment

For the following tree implement Breadth First Search & Depth First Search using Python and explain each and every coding lines using your own words and submit as PDF.

(Each Group must have least 5 members maximum 8 members)

