Post lab

1=>

Advantage	Disadvantage
- Allows systematic exploration of possible states and transitions - Can find optimal solutions for problem with well-defined state and transition rules - useful for modeling and solving a wide range of problems in AI, including search and planning	- Complexity increases exponentially with problem size - May get stuck in local optimal or search spaces with infinite loops. - Requires careful design and implementation to ensure efficiency and correctness.
2=> Simple and easy to implement. - Iterative improvement leads to quick convergence - suitable for problems with a continuous search space	prone to getting stuck in local optima, especially in rugged search spaces - Cannot guarantee finding the global optimum - Sensitive to intial starting points.

=>3 Simple hill Climbing: Iteratively makes small improvements to the current solution.

Steepest Ascent hill: Considering all neighbours states and selects the one with the highest improvement.

Random Restart hill climbing: Randomly restart the search from different initial states to escape local optimal.

Simulated Annealing: Introduces randomness to escape local optimal by allowing uphill moves with a decreasing probability.