CS/IT361	Artificial Intelligence lab	L	P	C
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Course Objectives:

The main objectives of the course are:

1. Develop various applications in AI
2. Formulate and implement real-world problems as state space problems, optimizationproblems or constraint satisfaction problems
3. Select and apply AI techniques to solve complex problems.
4. To learn about various Python packages that are used for solving AI problems

Course Outcomes:

After successful completion of the course, the students will be able to:

1. Analyze artificial intelligence techniques
2. Solve problems using different uninformed search techniques
3. Solve problems using different heuristic search techniques
4. Implement the algorithms for game playing
5. Solve the given problems using logic.

List of Programs:

1. Implement Exhaustive search techniques using
    a. BFS
    b. DFS
    c. Uniform Cost Search
    d. Depth-First Iterative Deepening
    e. Bidirectional
2. Implement water jug problem with Search tree generation using
    a. BFS b. DFS
3. Implement Missionaries and Cannibals problem with Search tree generation using
    a. BFS b. DFS
4. Implement Vacuum World problem with Search tree generation using
    a. BFS b. DFS
5. Implement the following
    a. Greedy Best First Search
    b. A* algorithm
6. Implement 8-puzzle problemusing A* algorithm
7. Implement AO* algorithm forGeneral graph problem
8. Implement Game trees using
    a. MINIMAX algorithm
    b. Alpha-Beta pruning
9. Implement Crypt arithmetic problems.
10. Program to implement Logic.

Additional Programs:

1. Implementation of Tic-Tac-Toe Problem
2. Implementation of 8- Queens problem