

MIT World Peace University

AIMLT

Assignment 2

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1 Title

Study of prolog programming language

2 Aim:

Demonstrate Reasoning/ Inferencing using prolog

3 Theory

3.1 *What is Prolog?*

Prolog is a short for programming logic is a programming language used in creating artificial intelligence. Prolog is classified as a logic programming language and relies on the user to specify the rules and facts about a situation along with the end goal, otherwise known as a query

3.2 *What is symbolic language?*

In prolog a symbolic language is form of declarative programming language that is particularly well-suited for representing and manipulating symbolic information and logical relationships. Some key characteristics of symbolic language in prolog are as follows:

- **Declarative Syntax:** Prolog programs are written in a declarative syntax that emphasizes what should be done rather than how to do it. This makes it suitable for expressing symbolic relationships and logical rules.
- **Facts and Rules:** In prolog, you can define facts and rules that describe relationships between symbols and entities. Facts and Statements about the world and rules are used to infer new facts from existing ones using logical reasoning.
- **Predicate and Clauses:** Prolog programs consist of predicates and clauses. Predicates are used to define relationships and clauses are composed of facts and rules. Predicates and Clauses are the building blocks of prolog programs.

3.3 Explain Rules, Facts and Queries

Rules