

(5). (25/20) Write a report that evaluates the language of Answer Set Prolog (ASP) using the four main criteria learned in class. Use the table below and write at least two ideas in each cell.

Criterion	Pros	Cons
Readability	<ul style="list-style-type: none"> - ASP is built with easy to read propositions and logic. - ASP is very logic and rule based, lacking requirements related to the language (like Java with variables). 	<ul style="list-style-type: none"> - Contradictions cannot exist. They should not even be looked for when reading ASP. - Reading ASP requires a solid understanding on boolean expressions, propositions, and other discrete mathematics topics.
Writability	<ul style="list-style-type: none"> - ASP programs are able to work with large programs that can have several million rules defined. - ASP is capable of handling domain specific knowledge, allowing it to be used to a wide variety of applications. 	<ul style="list-style-type: none"> - The order that statements and rules are written in can break a functional program. - In order to be an effective ASP developer, you have to have a concrete understanding of data structures and how to use terms with them.
Reliability	<ul style="list-style-type: none"> - When using the same solver, code will always do the same thing. Any mistakes can be changed very easily due to the logic based programming. - ASP code can be executed without the need for a large compiler. These compilers are usually free, allowing scalability of projects. 	<ul style="list-style-type: none"> - Different implementations required different platforms. Not all platforms do the same things (DLV vs DLV-complex). - Variables are not always directly supported, rather implemented by grounding. When this technique is used, more clauses can be required.
Cost	<ul style="list-style-type: none"> - It is very easy to write 	<ul style="list-style-type: none"> - Converting an existing

	<p>and train users to program in ASP due to logic.</p> <ul style="list-style-type: none"> - Universal application allows for many easy to use compilers. Cost to maintain is very low, as changing details is very easy. 	<p>problem to be solved by ASP can be time consuming due to the amount of propositions and rules that have to be programmed.</p> <ul style="list-style-type: none"> - Programming in ASP can be an adaptation from other languages like C and Java due to a lack of main features.
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(6). (3/3) Write a short summary of the contributions of each team member for each problem in this homework assignment. Specify if members participated in the initial development of the solution vs. verification & validation.

Mike: Provided support and advice on the solutions. Verified and validated before submission.

Brendan: Initial development of solutions for problems 1, 2, and 3.

John: Verified and validated problem 1 and 2 as well as tested them.

Ben: Created comparison table for question #5. Verified and validated solutions 1, 2, 3.