Artificial Intelligence [CSL7610] Assignment – 2

Submitted by

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Question:

Given a formula in propositional logic, write a code to put appropriate and necessary brackets in the formula following the precedence order of operators. If not possible, output “Not well formed formula”.

**Note-1:** We will use the following characters for different operators:

AND: &

OR : |

NOT : !

IMPLICATION : >

BICONDITIONAL : ~

**Note-2:** Each propositional symbol will be denoted by a capital letter (e.g., A, B, C, …, etc.).

**Note-3:** The input formula will never contain the truth values “True” and “False”.

**Examples:**

1. Input:

P|Q&R~Q>!R

Output:

(P|(Q&R))~(Q>(!R))

1. Input:

A>B|C

Output:

A>(B|C)

1. Input:

A>B>C

Output:

Not well formed formula

1. Input:

P|Q&>R

Output:

Not well formed formula

**Solution:**