An Algorithm outlining Unification Based Learning (UBL)

Input: A dataset consisting of (sentence, logical-form) pairs along with a mechanism for bootstrapping this.

Output: A lexicon and a vector with due weights calculated

Step by step Procedure:

1) Updating the initial Lexicon by loading from a sentence coupled along with its logical form. Giza scores for these data sets are loaded.
2) For all the set of sentences in the given training files, Build lexicon from the updated set and identify the best parse
3) Do this until all parameters in the set stand updated.
4) Basing on the number of iterations performed, learning rate and cooling rate (which is tentatively set to 10) estimate new parameters.
5) Calculate feature vectors basing on these estimates and update the parameters with the obtained values.
6) Improve the lexicon prediction by making use of all parameters and by increasing the conditional likelihood.
7) For those set of ambiguous models, do updation of parameters to check for improvement in likelihoods.
8) Output the respective lexicons and parameter vectors basing on the above estimates.