

CS321 Compiler Lab

Do the following.

1. Suppose you want to communicate to a database using plain English sentences. Design appropriate grammar and implement the CLR/LALR parsing technique to facilitate the same. The paper should check the grammatical correctness of the English sentence and the SDD should generate the corresponding database query.

[Hint: You may assume mySql database and some tables with certain attributes such as Student table with attributes name, roll, cpi.]

Example run:

Input: Please give me the roll numbers of the students.

Output: select roll from Student

Input: Please give me all the information of the students.

Output: select * from Student

Input: Please show the name and roll number of the students whose cpi is more than 7.

Output: select name, roll from Student where cpi > 7

Input: Please update the cpi of the student having roll no 201 to 9.

Output: update table Student set cpi=9 where roll = 210.

Note: You may choose similar queries from your side.

[As an additional work, you may design a small database and send the produced query to the database and get the result from the database. Design a small GUI to support this.]