Report on programming Assignment-3
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In this assignment we were asked to develop a program which can work like a simple calculator. Basically, it was a C expression evaluator which can parse and evaluate an statement. To help us in the development process we also were provided a startup project with a basic solution. In the given resources we had a proper guidance about the process of running the program. In the given folder there were an ex.l and an ex.y file. Our main task was to add some additional functionalities to making the program working perfectly. I also had to make some slight changes to the given Makefile file. I modified the given lex and yacc files to make it working for the given input files. So this program can be run according to the given guidance in our example folder.

To solve this problem it is mandatory to have some basic knowledge in yacc grammar rules and lex token defining process. As the given lex file was a combination of lex syntax and C, I had to study about some lex syntax. Then I studied about yacc and started to develop the program.

I used the vim as the text editor for implementing this program. It was a little bit tough to debug for me. For testing, I used the given input file and matched my output with the given ones. I also tested my program using some examples with self generated files. So far, it is good and output is correct for every run.

The problem was not a algorithmic one. But I faced a lot problems with lex and yacc syntax. As there is not enough resources in the Internet I had to struggle a lot to evaluate the operator according to their precedence and associativity. I faced the main difficulty with error handling especially the limit checking. After trying in different ways finally I succeeded. At the eleventh hour I found some good documentation and it helped me a lot.