Logic Design and Synthesis

Project1

Project specification

Teacher will announce on class.

Input Spec

1. We will give the parser of the project(please include parser.cpp and parser.h) or you can implement the parser yourself.
2. We will test your program using windows or linux command line , so you must use argc/argv method in main function of your C++ code.

Example for windows command line:

```
>./project1.exe    input.cnf
```

argc/argv method:

```
int main(int argc, char *argv[])
{
//your code
}
```

3. input file format:

ex:

```
c    .....      //if begin with c , the line is comment.
p cnf 2 2    // 1st number: total variable count , 2nd number: total clause count
  1 2 0       //1: 1st variable, 2: 2nd variable, 0: end line symbol
-1 -2 0       //1: 1st variable(complemented), 2: 2nd variable(complemented), 0: end line symbol
```

Output Spec

1. You must output your answer as "s SATISFIABLE" and a set of satisfying patterns for variables if the answer of input file is satisfiable, else output the string "s UNSATISFIABLE" in .sat file.
2. Output file must have the same name and directory as input file.

ex1:
input: test1.cnf:
p cnf 2 2
1 2 0
-1 -2 0

output: test1.sat:
s SATISFIABLE
v 1 -2 0

ex2:
input: test2.cnf:
p cnf 3 4
1 -2 0
1 3 0
2 -3 0
-1 0

output: test2.sat:
s UNSATISFIABLE

3. You need to hand up your C/C++ code, exe file, and your Environment description (windows or Linux) to E3.(Project1_studentID.cpp, Project1_studentID.exe, environment.txt)