

Programming Assignment 3

1. (10 points) Build the parse tree for input program written in the miniC language.
 - See an attached file for the details.
 - You are requested to separate the C code and the yacc/bison specification into distinct files.

Guideline:

1. You have to demonstrate your program in person and have the report in paper with you.
2. You will get 30% bonus if you succeed in demonstrating your program in class, while the report in paper still need to be handed-in in the due week. And, 30% penalty will be given for lateness. More precisely, if you get X in demonstration, and Y for the report:
 - Your score = $X * 70\% + Y * 30\%$
 - In-class demonstration and on-time report = $X * 70\% * 1.3 + Y * 30\%$
 - In-class demonstration but late report = $X * 70\% * 1.3 + Y * 30\% * 0.7$
 - On-time demonstration but late report = $X * 70\% + Y * 30\% * 0.7$
 - Late demonstration and on-time report = $X * 70\% * 0.7 + Y * 30\%$
 - Both late = $(X * 70\% + Y * 30\%) * 0.7$
3. Your report have to include the following elements:
 - I. A cover page.
 - II. The problem description.
 - III. Highlight of the way you write the program.
 - IV. The program listing.
 - V. Test run results.
 - VI. Discussion.

TEST PROGRAM

```
int ComputeFac(int num) {
    int num_aux;
    if (num < 1)
        num_aux = 1;
    else
        num_aux = num * ComputeFac(num-1);
    return num_aux;
}

int main() {
    printf("%d\n", ComputeFac(10));
}
```