The project of our group is Homework Automation:

1.Compile programs

2.Run programs

3.Accept grader input

4.Allow entry of grader comments

5.file the grade

There are 7 class for the whole project: ui, father, childCpp, childJava, childPy, grade, comment.

father: This is a father class, it has an abstract method: compile(), three member variables: string path, string fileName, file file. The compile() declares how to compile and run a program. The path is program’s location except it’s extension. The fileName is program’s extension. The file is use for program’s deposit.

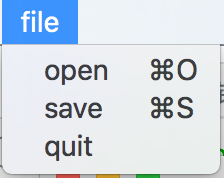
childCpp: This subclass extends the class father. It is use for compiling and running a .cpp file. It super() father’s three member variables. For compile(), we use cmd “g++” + fileName + “-o" to compile. And if the program can be compiled, the grade is 90 acquiescently, else the grade is 25.

childJava: This subclass extends the class father. It is use for compiling and running a .java file. It super() father’s three member variables. For compile(), we use cmd “javac” to compile and cmd “java” to run. And if the program can be compiled, the grade is 90 acquiescently, else the grade is 25.

childPy: This subclass extends the class father. It is use for compiling and running a .py file. It super() father’s three member variables. For compile(), we use cmd “python” to run. And if the program can be compiled, the grade is 90 acquiescently, else the grade is 25.

grade: This class offer a method to set grade and put this grade into a grade.txt.

comment: This class offer a method to set comment and put this comment into a comment.txt.

ui: This class design the user interface. Also this is the main of our project.

There are three buttons:

open: open your program file (.cpp/.java/.py);

save: save the code you have modified;

quit: exit.

Four text fields:

Code: display the code of your program, you can modify the code in it.

Result: display the result of your program.

Grade: display the code of your program, you can modify the grade in it.

Code: set the comment in it.

Three buttons:

run: first judge which style of the program’s code (.cpp/.java/.py/other); then call which class your need(childJava/childCpp/childPy) and run compile(). If other style, it will display “Please choose the .java/.cpp/.py file.”

Save grade: You can modify the grade in the Grade text field, and save it into grade.txt.

Save comment: You can set the comment in the Grade text field, and save it into comment.txt.

