```
gcc program.c # Compiles program.c and generates a default executable named a.out
./a.out # Runs the compiled program
```

```
gcc program.c -o my_program  # Compiles program.c and creates an executable named my_program
./my_program # Runs the compiled program
```

```
gcc program.c -o input_program # it takes inputs from input1.txt and displays the result in the terminal.
./input_program < input.txt
```

```
gcc program.c -o io_program
./io_program < input.txt > output.txt
# it takes the inputs from input1.txt and creates the myoutput.txt document and writes the result here.
```

```
diff output1.txt myoutput.txt # compares the document output1.txt with the document myoutput.txt.
```

```
diff --ignore-all-space output1.txt myoutput.txt
# compares the document output1.txt with the document myoutput.txt without ignoring the spaces.
```

QUESTION 1

In a text file named **grades.txt,** each line contains information about a student. Each line includes the following data.

- Student ID (integer),
- Student first name (single word),
- Student last name (single word),
- Midterm score (integer),
- Final score (integer).

```
struct Grades {

}
```

Calculate the overall grade for each student. (Overall grade = 40% of the midterm score + 60% of the final score). Using the calculated overall grade and the student's other information, write each student's details both to the file named **overall_grades.txt** and to the screen. Implement error checking for file opening, reading, and writing operations in your program.

NOTE: The grades information must be stored using a struct.

Input1: **grades.txt file content**

```
12345 John Smith 65 70
23456 Emily Johnson 80 90
34567 Michael Brown 55 60
45678 Sarah Davis 75 85
```

Output1: **overall_grades.txt file content**

```
John Smith: 68.0
Emily Johnson: 86.0
Michael Brown: 58.0
Sarah Davis: 81.0
```