



# Project 2: Matrix multiplication

Please implement a program to multiply two matrices in two files. There are 6 files in the attachment. `mat-A-32.txt` is for matrix A, the matrix size is 32x32. Other files are similar.

## Requirements

1. When you run the program as follows, it will output the result into an output file such as `out32.txt`.

```
$/matmul mat-A-32.txt mat-B-32.txt out32.txt
```

```
$/matmul mat-A-256.txt mat-B-256.txt out256.txt
```

```
$/matmul mat-A-2048.txt mat-B-2048.txt out2048.txt
```

2. Please implement the matrix multiplication in `float` and `double` separately, and compare the `time consumed` and `the results`. `Give detailed analysis on the speed and accuracy`.
3. You can try to improve the speed, and introduce the methods in the report.

## Rules:

1. Please submit your project report before its deadline. After the deadline, **23:59 on Sep. 30**, (even 1 second), **0 score!**.
2. Please submit two separated files: `report.pdf` and `source.cpp`. Please do **NOT** put the two files into a compressed one.
3. Your score will also depend on the quality of your source code and your report. Your report should be easy to understand and describe your work well, especially the highlights of your work.
4. Please pay more attention to your code style. After all this is not ACM-ICPC contest. You have enough time to write code with both correct result and good code style. You will get deduction if your code style is terrible. You can read

Google C++ Style Guide (<http://google.github.io/styleguide/cppguide.html>) or some other guide for code style.