**OS: Exception System**

Error handling can be divided into two parts: response and recovery procedures. It anticipates, detects and solves different types of errors.

Although there could be various errors, we will only consider a subset of them due to time limit and our simulated OS is so simple that it might not generate many errors. Specifically, errors could occur, but not limted in, when:

* File System: open/write/delete file without permission; quit without saving; attempt to use duplicated file names.
* Task Scheduling & Memory allocation: memory usage exceeds limit; process breaks down; memory allocation overlapping.
* Terminal: use of invalid instructions; file path not exists.

……

Different errors should trigger different responses. If the error is fatal, such as memory usage exceeding limit, our OS will cease all processes and start again. Otherwise, if the error is minor, our OS simply throws out a warning message.