

Exceptions, Assertions and Logging

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This section will talk about three topics

- **Exception handling:** use some cases to avoid accidental errors
- **Assertions:** run several checks to make sure you program does the right thing
- **Logging:** record problems into files

1 Dealing with Errors

Basic Requirement:

- Return to a safe state and enable the user to execute other commands
- Allow user to save all work and terminate the program gracefully

Possible Errors:

- User input errors: *syntatically* wrong
- Device errors: Hardware may not be able to do what you want (Power off?)
- Physical limitations: Disks can be filled up

- Code errors: using something in a wrong way for existing codes

In Java, we use 'throw' to provide an object *which encapsulates the error information*