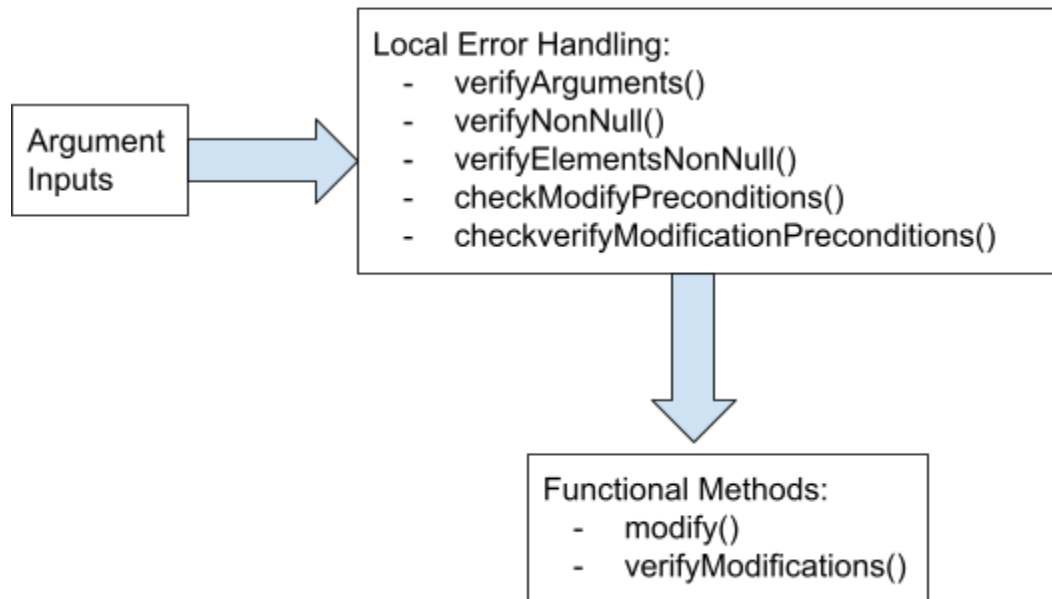


Error Handling Design Document

Error Handling Architecture



Strategy for implementing robustness and handling errors:

- Call an error-processing routine/object: Most error handling was done with private helper methods to check for preconditions
- Exception handling done for all public/package-private methods
- Choice to allow negative heights to avoid extra error handling to allow for more robustness
- Exceptions are handled locally

Decisions on local or global error handling

- All error handling was done locally through using private helper methods

Potential Errors in Landscape class:

- Negative range - handled with verifyArugments()
- Failed preconditions for modify() - handled with checkModifyPreconditions()
 - $x1 > x2$
 - $x1 < 0 \parallel x2 < 0$
 - $x2 > \text{range of Landscape}$
- Failed preconditions for verifyModifications - handled with checkVerifyModificationPreconditions()
 - NonNull arguments - handled with verifyNonNull()

- NonNull elements - handled with `verifyElementsNonNull()`
- Different number of elements input and size of list of heights