Software Reliability

What is it?

- Software reliability is the probability that software will work properly in a specified environment and for a given amount of time.
- Means Operation Reliability
- Software reliability is also defined as the probability that a software system fulfills its assigned task in a given environment for a predefined number of input cases, assuming that the hardware and the input are free of error.

Probability of failure

MTBF = MTTF + MTTR

Fault Tolerance

Exception Safety

With

Examples of good practices

- No use of uninitialized variables
- No assignement ' =' within 'while' statement
- No assignement ' =' within 'if' statement
- Switch' statement have a 'default' condition
- All types are explicitly declared (no Void *)
- No func with a variable number of parameters
- All types are safely converted
- No use of freed or unallocated memory
- No multiple inheritance of implementation classes
- Explicit use of () instead of relying on operator precedence

The linter

- PEP8
- flake8