Rule 03. Numeric Types and Operations (NUM)

Rules

- NUM00-J. Detect or prevent integer overflow
- NUM01-J. Do not perform bitwise and arithmetic operations on the same data
- NUM02-J. Ensure that division and remainder operations do not result in divide-by-zero errors
- NUM03-J. Use integer types that can fully represent the possible range of unsigned data
- NUM04-J. Do not use floating-point numbers if precise computation is required
- NUM07-J. Do not attempt comparisons with NaN
- NUM08-J. Check floating-point inputs for exceptional values
- NUM09-J. Do not use floating-point variables as loop counters
- NUM10-J. Do not construct BigDecimal objects from floating-point literals
- NUM11-J. Do not compare or inspect the string representation of floating-point values
- NUM12-J. Ensure conversions of numeric types to narrower types do not result in lost or misinterpreted data
- NUM13-J. Avoid loss of precision when converting primitive integers to floating-point
- NUM14-J. Use shift operators correctly

Risk Assessment Summary

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<th>Rule</th>
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<th>Likelihood</th>
<th>Remediation Cost</th>
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