

Project:	Code Author:	
Codo Poviow Dato:	Cada Paviawar	

Aspect of Code Quality	Needs Improvement	Meets Expectations	<b>Exceeds Expectations</b>
Readability and Formatting  ➤ Variable naming and casing  ➤ Line length and complexity  ➤ Formatting and indentation  ➤ Explanations in comments	<ul> <li>☐ Unclear/arbitrary variable names</li> <li>☐ Casing is sometimes inconsistent</li> <li>☐ Lines are often long and complex</li> <li>☐ Inconsistent formatting/indentation</li> <li>☐ Few or no comments to explain complex or confusing code</li> </ul>	<ul> <li>□ Descriptive variable names</li> <li>□ Casing is always consistent</li> <li>□ Lines are usually short and terse</li> <li>□ Readable formatting/indentation</li> <li>□ Several comments to explain complex or confusing code</li> </ul>	<ul> <li>□ Clear, semantic variable names</li> <li>□ Casing always follows conventions</li> <li>□ Lines are always short and terse</li> <li>□ Consistent formatting/indentation</li> <li>□ Complex code is always explained with comments when appropriate</li> </ul>
Organization and Modularity  ➤ Modularity and coupling  ➤ Use of abstraction  ➤ Side effects of functions	□ Code contains large monolithic or tightly coupled functions and/or classes that could be separated □ Limited or no use of abstraction □ Functions use global variables	<ul> <li>□ Code is separated into functions and/or classes but may be tightly coupled causing ripple of changes</li> <li>□ Some use of abstraction</li> <li>□ Few functions cause side effects</li> </ul>	<ul> <li>Code is separated into functions and/or classes with different, clear responsibilities and loose coupling</li> <li>Abstraction used whenever helpful</li> <li>All functions avoid side effects</li> </ul>
Standard Library/Conventions  ➤ Uses existing functions/classes  ➤ Follows language conventions	<ul> <li>Several standard library functions or classes are reinvented without any customization or justification</li> <li>Violates language conventions</li> </ul>	<ul> <li>Occasional use of standard library shows exposure and/or research</li> <li>Few cases of reinvention could be simplified using standard library</li> </ul>	□ Significant use of standard library when helpful and to simplify code and customizations are justifiable □ Follows language conventions
Effectiveness of Solution  ➤ Does it solve the problem?	☐ Solves some typical input cases☐ Does not solve any edge cases☐	☐ Solves most typical input cases☐ Solves some obvious edge cases☐	☐ Solves all typical input cases☐ Solves all known edge cases☐
Testing and Error Handling  ➤ Testing solution robustness  ➤ Handling errors/exceptions	<ul> <li>□ Minimal or no automated testing</li> <li>□ Test inputs are simplistic or naive</li> <li>□ Minimal or no exception handling</li> </ul>	<ul><li>☐ Tests cover typical input cases</li><li>☐ Test inputs are varied and creative</li><li>☐ Handles some errors/exceptions</li></ul>	☐ Tests cover all typical input cases☐ Tests cover all known edge cases☐ Handles several errors/exceptions
Algorithmic Complexity  ➤ Efficient use of resources  ➤ Scalability with large inputs	<ul> <li>Code often repeats redundant operations or uses brute force</li> <li>High algorithmic complexity that does not scale with large inputs</li> </ul>	<ul> <li>Some code repeats redundant work, but with minimal impact</li> <li>Low algorithmic complexity that avoids brute force approaches</li> </ul>	Repeated work is often avoided to save time and memory resources  Optimal algorithmic complexity that scales well with large inputs