

Grading rubrics for SO 6

	Excellent (5 pts)	Good (4 pts)	Satisfactory (3 pts)	Poor (2 pts)	Unacceptable (1 pt)
Understand the problem and identify evaluation metrics for experiments	All components and concepts are clearly understood; identify appropriate and comprehensive metrics for evaluation and provide good explanations why the metrics are chosen	Good understanding of concepts and of the system view; identify some metrics for evaluation and provide justifications for metric selection; however, miss some key evaluation metrics	Basic understanding of concepts and components; identify some metrics for evaluation but fail to justify the selection.	Can restate concepts but does not understand use of them in this problem; fail to identify appropriate evaluation metrics	Cannot understand work requirements and how experiments need to be done, cannot identify concepts needed to be used in experiment
Acquire and use software libraries and tools needed for experiments	Several options considered, can discuss which 2 or 3 were pursued to trial, why one was selected	Two or more options for tools are considered; small trials with more than one option are used to determine suitability of implementation	A single set of libraries, tools and interfaces are collected, adequate to create experiment, no other choices or options considered	Can find some tools, libraries and example code, however there are mismatches (incorrect tools for the environment, or some important tools are missing)	Unable to understand what is needed, not able to find or download libraries, header files, or compilers needed
Design experiments and develop programs for evaluation	Clearly design experiments for different purposes and evaluations; the developed programs are correct, efficient, and well-documented; the selection of programming languages and environments is appropriate, and the results are reproducible.	Experiments are well-designed; the developed programs are correct, but efficiency could be improved; experiment results are reproducible.	Programs are developed according to the design of experiments, but some designed may not be well-justified. The developed programs are mostly correct, but there are variations in the results and some experiments are not reproducible in a different environment	Only parts of the experiments are conducted; the developed programs are incomplete and often generate incorrect outputs.	Code does not compile or has runtime error before any results are generated
Use the developed programs to collect experimental results	Clear and systematic methodology for data collection; collect comprehensive results and present the results in a clear and straightforward way	Data collection is somewhat ad hoc but no important result is missing; Results are tabulated, but there lacks visualization to compare different results	Results have been successfully collected but some important results are missing; the collected results may contain erroneous, inconsistent, or incomplete data	Some partial results are obtained, programs may have runtime errors, or not generate the needed data	No, or insufficient results are collected from trial runs

Analyze and interpret experimental results and draw conclusions	Data results are well explained in simple terms; analysis and interpretation are clearly articulated and correct; conclusions are correct	Analysis and interpretation are comprehensive, but some explanations are not well-supported by experimental results; most conclusions are correct, but some are not supported by results	Results are explained and the interpretation is mostly correct, but anomalies are ignored or incorrectly explained; conclusions lack evidence support	Results are collected, but not well-interpreted or analyzed; no definite conclusions are made, or conclusions are mostly incorrect	No analysis or interpretation of results is provided; no conclusions are made
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