Dossier Criterion A1: Analyzing the Problem

The documentation should be completed first and contain a thorough discussion of the problem that is being solved. This should **concentrate on the** **problem** and the **goals that are being set**, *NOT on the method of solution*. A good analysis includes information such as sample data, information and requests from the **identified end-user**, and possibly **some background of how the problem has been solved in the past**. A **systematic method** is one that takes into account what **input and output** will occur and what **calculations and processes** will be necessary to obtain the desired output.

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| Achievement Levels | Descriptor |
| 0 | The student has not reached a standard described by any of the descriptors given below. For example, the student has simply described the programmed solution. |
| 1 | The student only **states** the problem to be solved or shows some evidence that relevant information has been collected. |
| 2 | The student **describes** the problem to be solved. |
| 3 | The student describes the problem **and provides evidence** that information relating to the problem has been collected. |
| 4 | The student provides evidence that a **systematic method** has been used in analyzing the problem. |

This section of the program dossier would typically be 2-3 pages in length (single-spaced). It should include a brief statement of the problem as seen by the end-user. A discussion of the problem from the end-user’s point of view should take place, including the user’s needs, required input and required output. For example, evidence could be sample data, interviews and so on, and could be placed in an appendix. To achieve highest level, you must proficiently illustrate your systematic analysis of the problem.

Requirements Checklist:

* Introduction
  + 1 paragraph
* State the problem to be solved 🡪 problem statement should be bigger picture
  + 1-2 paragraphs
* Discuss and describe the problem
  + 1-2 paragraphs
* Discuss other ways that the problem has been addressed in the past
  + e.g., many library books 🡪 Dewey Decimal System + card catalog
    - Your alternative solution could be an electronic system
  + 1-2 paragraphs
* Systematically analyze the problem
  + You can use paragraphs, lists, bulleted items, drawings, charts, diagrams, and etc. 🡪 DESIGN DESIGN DESIGN
  + What kind of questions would you ask your end-user?
  + What requirements would your end-user have in your system?
  + Discuss / list inputs
  + Discuss / list outputs
  + What kind of different interfaces / sub-programs would your system have?
    - e.g., database
      * Normal user interface vs. administrative interface
      * How would you store the data on disk? (file format)
      * add items
      * display item specifics
      * view all items
      * select and process items
      * etc.
  + Graphically illustrate possible user actions and flow diagrams
    - A flow chart may be used to illustrate the steps that a user would go through in using your system