Individual Project Document

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### Code Smells, Redesign, Refactoring, and Design Patterns

Code Smells:

1. Originally, the procedural code was considered a Long Method.
2. “entryDetect” in Entry class was a Long Method.
3. “Write” in CreateEntry class was a Long Method.
4. “Read” in QueryEntry class was a Long Method.
5. “searchFromTo” in Report class was a Long Method.
6. “Select\_entries” in Database class was a Long Method.
7. Entry class originally was a Long Class with all the functionality for making commands.
8. Plenty of Dead Code from previous iterations of coding.
9. Unneeded comments.
10. Duplicate Code where “Today” is translated into the current date

Refactorings:

1. Used Extract Method to remove Long Methods and create new methods for the extracted methods.
2. Used Extract Class to separate Long Classes into separate ones.
3. Dead code removed and useful parts transferred to new modules.
4. Comments unneeded in places due to Extraction of Methods into well named methods
5. Extracted Methods for Duplicate Code and replaced the code with a call to the methods

Applied Design Patterns:

1. Chain of Responsibility
2. Command
3. Mediator