Mid-Size Pattern Documentation Template

1. Determine which one is an EBT and which one is a BO.

2. Define and document the context section (Requirements) of each of the concepts – Make sure to name and document two scenarios

   • **Context:** Gives possible scenarios for the situations in which the pattern may recur. It is important in this Section that you motivate the problem you solve in an attractive way. For example, if I am writing a pattern about Trust, I would flush the trust in the context of e-commerce, for example. Keep this Section short yet exciting (This Section somewhat serves as an Introduction in conventional paper)

   **Length: 1/4 to 1/3 Pgs**
   - Describe the boundaries
   - List basic scenario – context,
   - Show by good examples where the pattern can be applied *(3 scenario limit)*
   - For example “account”... would have ownership and handler context, can be applied to banking Internet Providers, private clubs, etc
   - Discuss briefly a few unique context of the pattern.

3. Define and document the problem section (Requirements) of each of the concepts – Make sure to define the functional and non-functional requirements

   • **Problem:** The problem should focus on the core purpose of the pattern and should be able to answer the question: In what situation I may benefit from your pattern?

   **Summary:**
   Has to be about **a specific problems and descriptions = actual requirements of the pattern**
   Must be in a domain. There are two basic domains Analysis/Design & Own Fields of existence.

   List of the requirements of the pattern (concept) and describe them briefly
   **Identify and document the functional requirements**
   **Identify and document the non-functional requirements are related to quality factors and must be enduring as well**

4. Solution:

   **Pattern Structure and Participants** Gives the class diagram of the pattern (EBT or BO). It also introduces briefly each class and its role. (associations, aggregations, dependencies, and specializations) should be included in the class diagram. Association classes,
constraints, interfaces, tagged values, and notes must be included in the class diagram. *A full description of the class diagram should be included with the final submission.*

**Summary**
- Generate and model the class diagram of the pattern
- Describe the model, role story, such as scenarios, how they play together

5. **Describe briefly and Map 5 different applications using the pattern using the following table format:**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>App-1</th>
<th>App-2</th>
<th>App-3</th>
<th>App-4</th>
<th>App-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBT</td>
<td>BOs</td>
<td>Name</td>
<td>Name</td>
<td>Name</td>
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<td>Name</td>
<td>IOs</td>
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<td>Name</td>
<td>IOs</td>
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</tr>
</tbody>
</table>

6. **Applicability With Illustrated Examples:** Provides clear, significant, and detailed *Two Case Studies* for applying the pattern in different contexts. The following sub elements represent the required details in each case study.
   a. **Case Studies.** Show the scenario of one case studies from different contexts
   b. **Class Diagram–** Pattern + IOs
   c. **Use Case.** Presents the different Use Cases and the Actors for each case study, and shows the relation between the different Use Cases, and the relation between these Use Cases and the Actors of the system. You need to insert test case for EBTs and BOs only
   d. **Use Case Description.** Gives detailed description for each Use Case. (Sometimes each would be so long for a paper, but at least a sample of these Use Cases! Just my opinion)

**Length: 2-4 pages total ~ 1 Page each**
- Show 2-3 Distinct Scenarios
- Description of the problem statement of the particular problem
- Describe the Model
- Use Case Description (don’t need to do use case diagrams)
- Sequence Diagrams

6. **References**