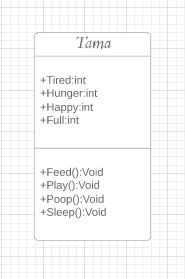
**Tamagotchi – Design Document**

**Problem Statement -**

Tamagotchi is a small, handheld digital pet that you can feed, play with, put to bed and clean up after. Look after it well by feeding it the right kinds of foods, showering it with attention and cleaning up after it when required, and your Tamagotchi will grow up to be a smart, well-respected member of society.

Like we said before, first thing first to get all of the basic needs finished so we have some semblance of a basic Tamagotchi pet. We're talking about things like hungriness, fullness, tiredness, happiness and of course, the actions required to mitigate these needs. We're not really sure of the implementation though. We were thinking of needs on a scale of 1-100, with different activities having different effects on them, but we'll go with whatever you think is best.

**Proposed Solution -**

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**Class Diagram**

1. As given in the requirements I have taken all the attributes of Tama as properties of the class i.e. Tired, Happy, Hunger, and Full. I have created various methods to mitigate various needs of tama.
2. I have taken value of each property from 1-100. And to make it visually appealing I have shown them as power level (1-10) as per the current values.
3. I have taken various stages to show the lifecycle of Tama i.e. Baby, Teen and Adult and rate properties for all attributes that will change with stage
4. I have used existing visualization to make it appealing and they were taken from an existing program. Color and size of Tamagotchi will change with these stages.
5. Like a normal pet, Tama has its requirements which need to be fulfilled from time to time. So as an owner you will have an option to fulfill them or to deny them.

* In case requirement is fulfilled it will decrease the value of respective property in a positive sense.
* In case requirement is not fulfilled it will increase the value of the respective property in a negative sense.

1. Apart from the needs value of these properties will changed based on the time and stage.
2. Rate of these properties will also keep on changing on changing with stage.
3. If any of the property value goes above the threshold value, Tama will ask to fulfill that requirement.