Strategy pattern

Introduction

This document is part of a series of documents I will create as part of my studies of Design patterns.
In these documents I will touch the topic of what I learned and I will further put it to practice giving by an as relevant possible example.
Furthermore at the end of my Semester, February 2018, I might revisit some of these documents to shed light on patterns that I was able to use during my projects.

What I learned

Defines a family of algorithms(behaviors) for a class, encapsulates the algorithms and makes them interchangeable, even at run time. The strategy pattern taught me to favor composition over inheritance due to the flexibility that is gained and run time changeability. As such I now know a better way to encapsulate the algorithms that vary.

An example

An example where I could have used the strategy pattern is Trees of life (Glow).
(see http://i282482.hera.fhict.nl/#glow)
Upon being touched the 'veins' of the tree would pulse every few seconds.
At the time I implemented a different object for each type of pulse there could be depending upon the hardness of the touch.
This is a case where I could have implemented an interface lets say: "IPulseType" with different implementations such as 'CalmPulse', 'NervousPulse' and 'ExcitedPulse' which would handle the lighting accordingly.

The code

https://github.com/RickVM/Design-patterns/tree/master/Strategy%20pattern