COMP-2005 Group 5 Project

The use of patterns in your design

The main pattern we used in our design of Ricochet Robots was assigning specific responsibilities to their respective information experts. The information expert is a class which has the information required to carry out its given task. In our design of Ricochet Robots, the Player and Robot classes are good examples of information experts. Anytime there is an action requested during the game by the user or AI, these classes are called to take on the appropriate task. Another pattern we used was creator. We did this so we could reuse code instead of rewriting it, which also led to better maintenance, low coupling and high cohesion. While low coupling and high cohesion are individual patterns, we feel it is important to keep them in mind during the entire design of the project, instead of focusing on them when writing certain classes.

While we may have indirectly included this pattern in our design, one pattern that would have been ideal to include would have been pure fabrication. We all felt that it is a more abstract pattern and a little difficult to assign to a class. With that being said, pure fabrication offers solutions to problems that information experts cannot solve without compromising low coupling and high cohesion, which we all believe is crucial to achieving a good design. Again, indirection supports low coupling, however, many indirection happen through the use of pure fabrication. Since we never put particular focus on pure fabrication, this created a domino-effect, resulting in us not putting focus on indirection as well.