Chip's Challenge Reflection

Maria Beatriz Zanardo

The Chip's Challenge game was developed using the MVC architectural pattern. The program contains a model, view and controller for both Chip and for each of the monsters. To make the MVC pattern work, I used the Observer pattern so that the view would update whenever a change was made to its corresponding model. The State design pattern was also used to keep track of the state of the game. Each state was declared in the ChipModel class. Finally, the game used the Strategy pattern to determine the movement of each monster (horizontally or vertically). All the design of the game (except monsters and Chip) was handled in the MapDisplay class (creating game map, blocks, chips and door). The Main class was responsible for setting up the stage, declaring all other classes and handling the animation and user input.

If I could change my design, I probably would have developed further the Strategy pattern to include more complex patterns. I would have probably set up the map in some other way to make the game more challenging.

Design Pattern Template

Pattern name: Observer	
Class name:	**Role in pattern:**
ChipView	Observer
ChipModel	Observable
MonsterView	Observer
MonsterModel	Observable
Purpose: View updates whenever model changes	

Pattern name: State	
Class name:	**Role in pattern:**
GameState	State interface
GameWon	State
AllChips	State
GameRunning	State
Purpose: Keeps track of the state of the game	

Pattern name: Strategy	
Class name:	**Role in pattern:**
MoveStrategy	Strategy interface
MoveHorizontal	Strategy
MoveVertical	Strategy
Purpose: Monster can move in two different ways: horizontally and vertically.	