CSCI P532 – Week 7 (Game Maker – Multiple Games) – Team 3

**Team Members –** Sri Sai Vidya Chitta, Pulkit Mathur, Anvesh Nayan, Kunal Pensalwar

**Problem Statement –** Review andModify the inherited code base to allow the user to create and play three different games apart from Breakout.

**Technologies Used –** Java Swing, tintin Git, Jira, Junit, Log4j, Bamboo, Eclemma, Mockito

**Design Patterns Used –** Strategy Design Pattern, Command Design Pattern, Model-View-Controller

Strategy Design Pattern – Strategy Interfaces are created for Actions. Depending on which Events are enabled for the Sprite corresponding performAction method is called.

Command Design Pattern – SpritePanelController calls its update method which executes the Sprite and Timer Commands while the game is being played. This allows for the Game Panel View to be updated depending on frame changes.

Model-View-Controller – SpritePanelModel and SpritePanelController are implemented to update the SpritePanelView. The SpritePanelModel sets the Image, Action, and Event Interface for the Sprites, and holds the array of Sprites that will be drawn on the GamePanelView. The SpritePanelController contains all action listeners for the SpritePanelView components, and calls the Sprites execute method in gameLoop which allows for the GamePanelView to be refreshed.

