CSC207: Project Update

Edward, Terry and Yan December 6, 2021

Design Diagram 1 Steerable Entities Use Cases PathFall PathOrbit Controller Sputnik Missile UI MainMenu Factory GameParameters Fact. Sputnik Fact. Missile + setParameter() + getProduct() + getProduct() + getParameter() MainLoop ${\bf Game State}$ GameLogic Inspector + update() + iterator() + update() $+ \min()$ FileManager Console Canvas SoundEffect + loop()+ readFile() + listener() + paint()

Figure 1: Missile Mayhem packages and calling dependencies.

2 Weekly Update

2.1 Clean Architecture (Yan)

Class GameState, which is in the Controller Layer, no longer manipulates stationary JPanels, which are Entities. JPanels are now updated by Inspector, which resides in the Use Case Layer.

2.2 Accessibility (Terry and Yan)

Users can now select from two themes: Light or Dark. Several new dark Entities have been created. Factories have now two variations for each theme.

2.3 SoundEffects (Edward)

Class SoundEffect has been implemented. It plays wav clips when the game stage changes or when there is a collision detected.

2.4 Single responsibility Principle

Class Canvas, which belongs to the UI Layer, is only now responsible for gathering and displaying JPanels. A new class Inspector has been created to update the attributes of JPanels.

3 Bugs and fixes

3.1 LIFO system of JPanels

Java Graphics paints JPanels in the LIFO order. To get dark or light backgrounds it is necessary to add these backgrounds as the last JPanel to JFrame.

4 TODO

Functionality is fully implemented. The game runs from the beginning to the end smoothly. The focus now should be on code improvements.

- \bullet Complete javadocs for classes /** @author @version @since */
- \bullet For methods /** brief long description @param @return */
- Polish design patterns
- Create all test cases
- Fix all warnings
- Final report