

AHG223 Shooting Game

<Deal with JFrame & Button>

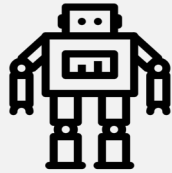


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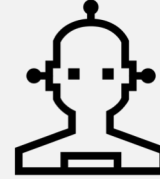
1

**Simulate
Shooting Game**



2

**About
Class & Method**



3

**Interaction
between Class**



4

**Learning in
This Course**



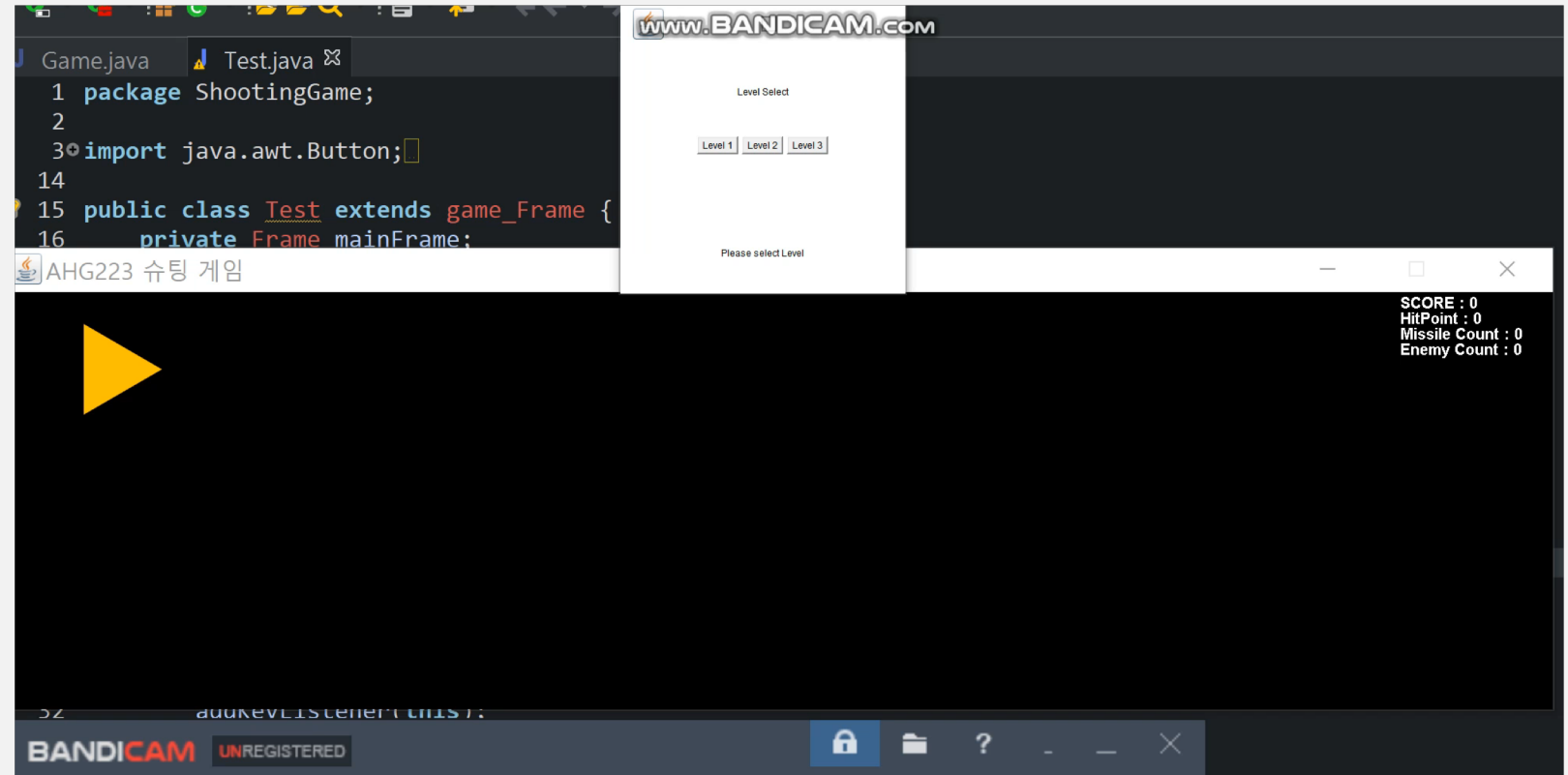
Simulating Game

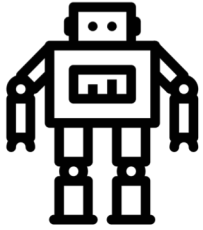
✓ Shooting Game

Player can choose
level of game

Player's speed, bullet
speed, reload is different

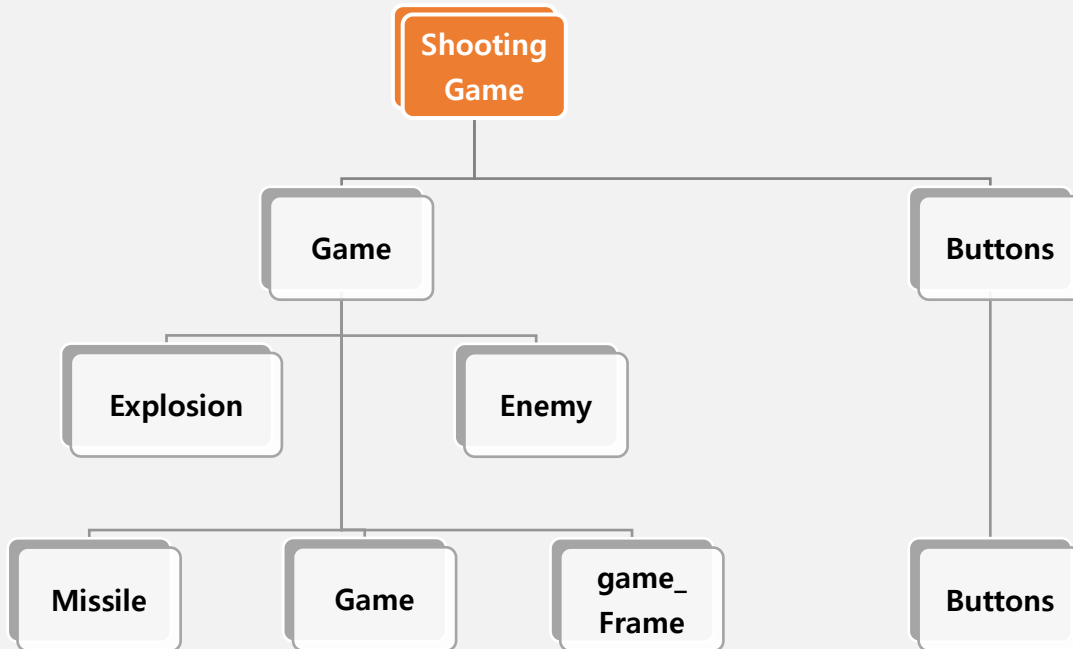
Left upper side show
hp and score of player





1 Package, 2 Java Files, 6 Classes

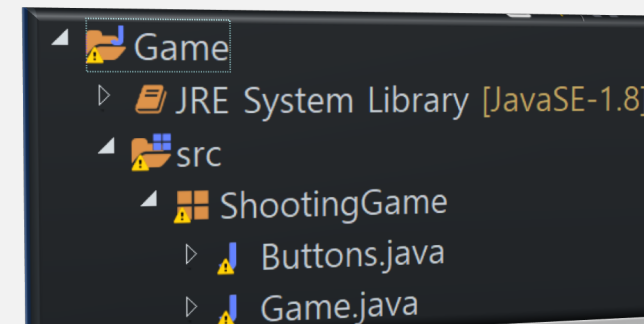
✓ Structure of Source Code

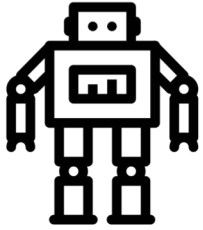


✓ About Shooting Game Package

Package of this source code

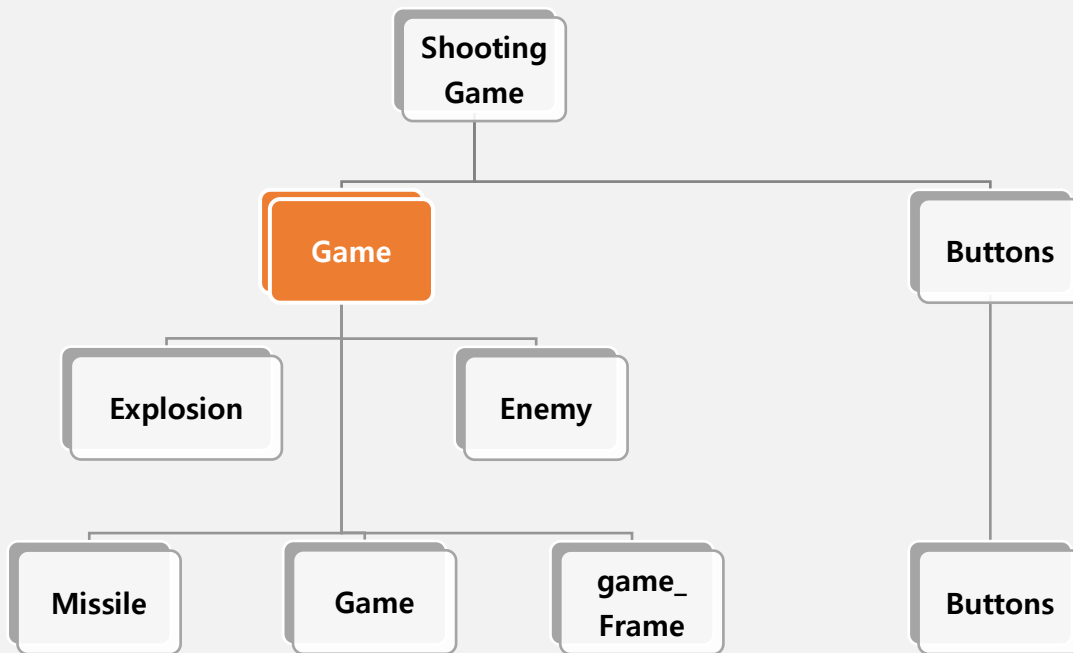
Include 2 Java File – Game.java, Buttons.java



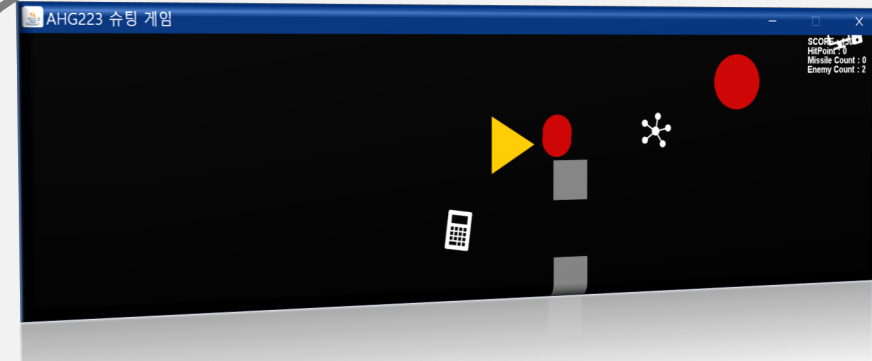


1 Package, 2 Java Files, 6 Classes

✓ Structure of Source Code

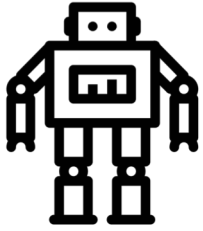


✓ About Game.java



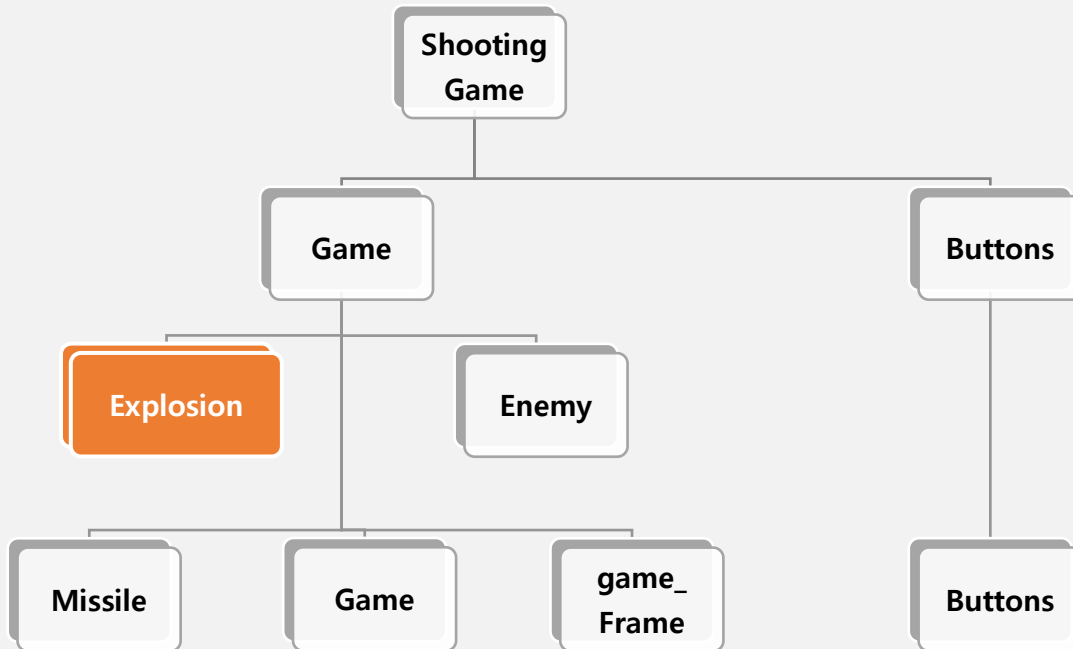
Related with shooting game

Contain 5 classes which
composed of shooting game



1 Package, 2 Java Files, 6 Classes

✓ Structure of Source Code

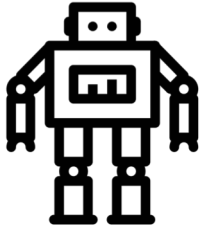


✓ About Explosion class

Method. Explosion(x, y, damage)

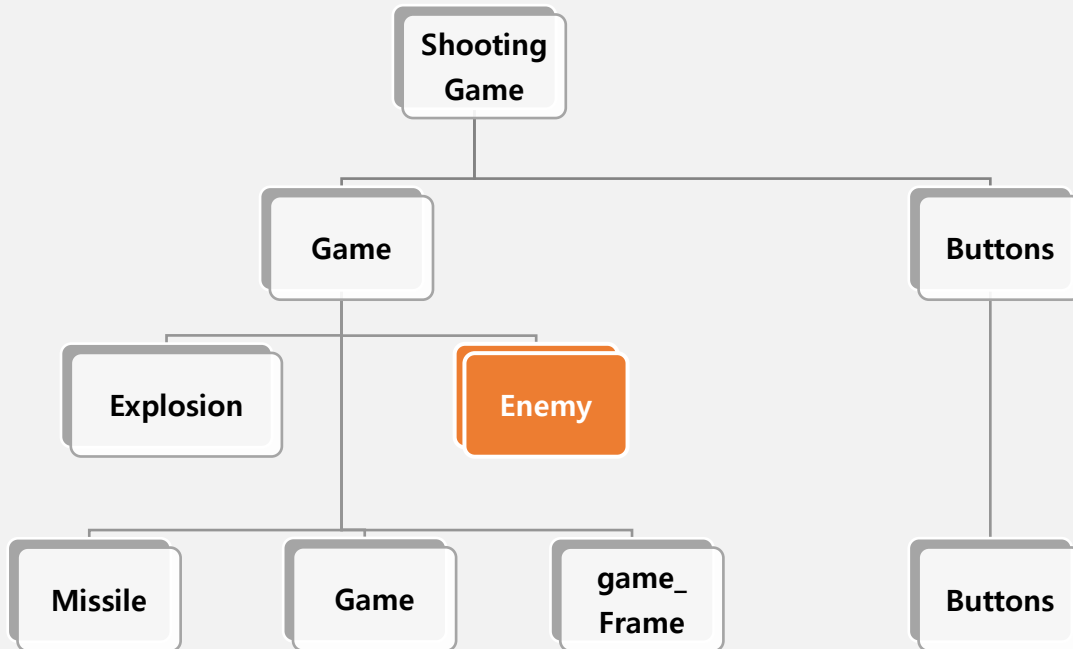
Parameter x, y = location of Explosion

Damage=0 : Missile, Enemy Explosion
Damage=1 : Player Explosion



1 Package, 2 Java Files, 6 Classes

✓ Structure of Source Code



✓ About Enemy class

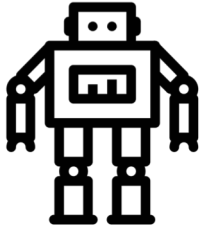
Method. Enemy(x, y, speed)

Parameter x, y: location of Enemy

Parameter speed: speed of Enemy

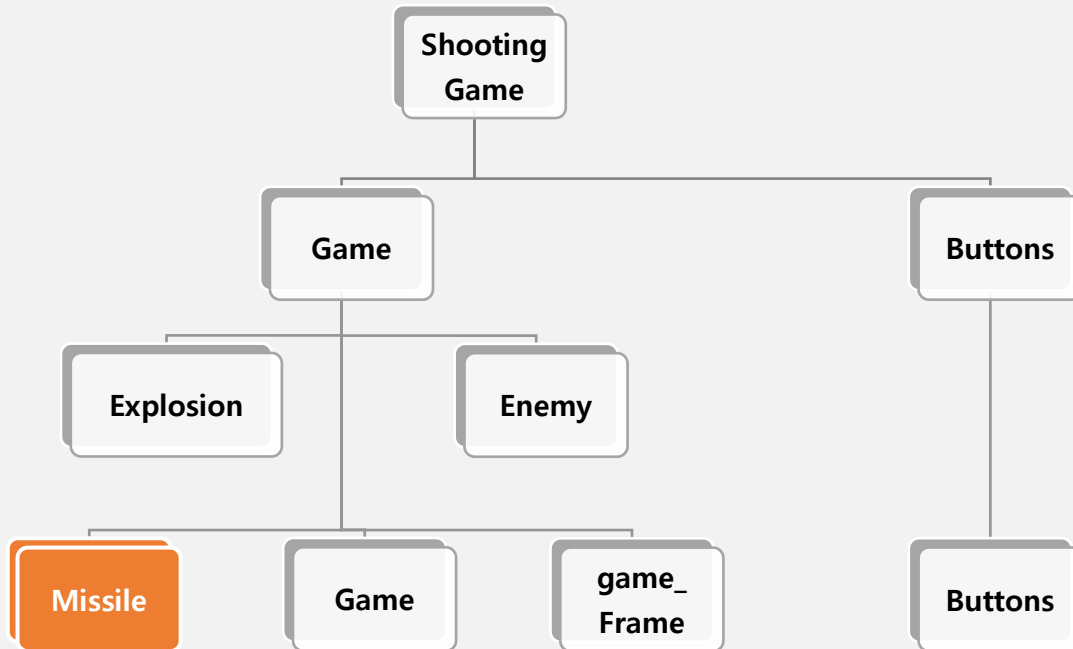
Method. move() – x-=speed;

Location is changed by subtract speed



1 Package, 2 Java Files, 6 Classes

✓ Structure of Source Code



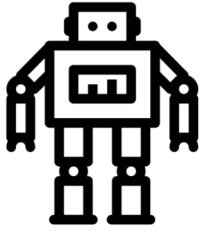
✓ About Missile class

Method. Missile(x, y, speed)

Parameter x, y: location of Missile

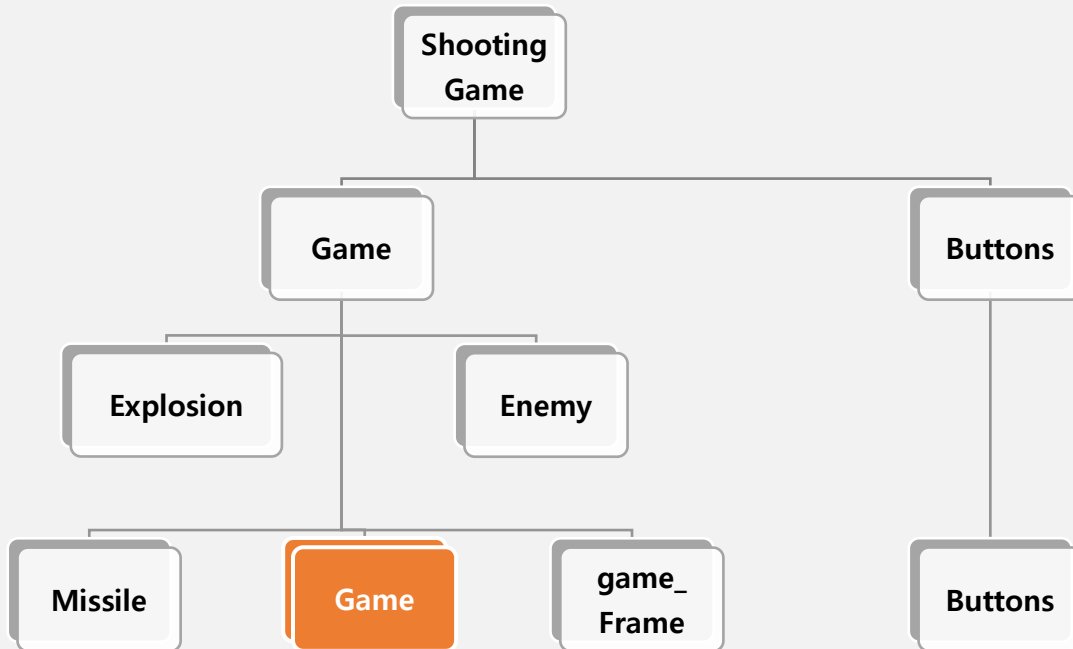
Parameter speed: speed of Missile

**Method. move() +x-=speed;
Location is changed by add speed
Different direction with Enemy**



1 Package, 2 Java Files, 6 Classes

✓ Structure of Source Code

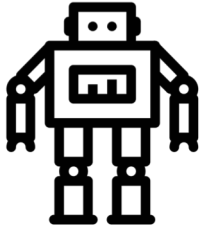


✓ About Game class

Just for main class

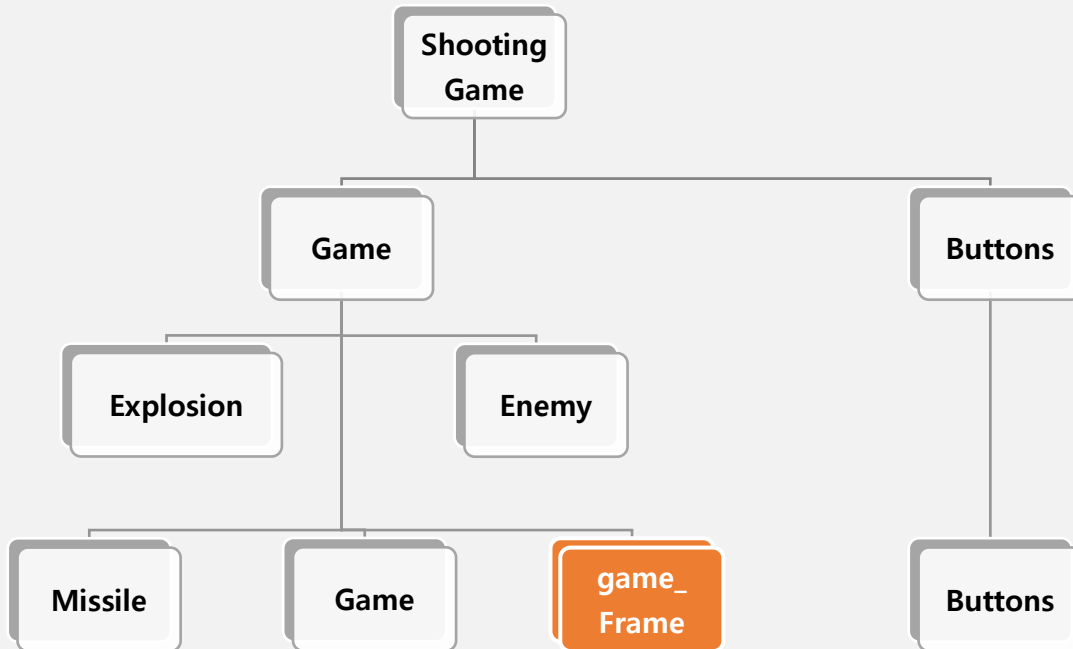
```
Game_Frame AHG223 = new game_Frame();
```

Nothing else with out upper object



1 Package, 2 Java Files, 6 Classes

✓ Structure of Source Code

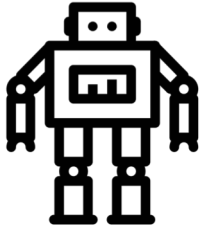


✓ About game Frame class

Extends JFrame
Implements KeyListener, and Runnable

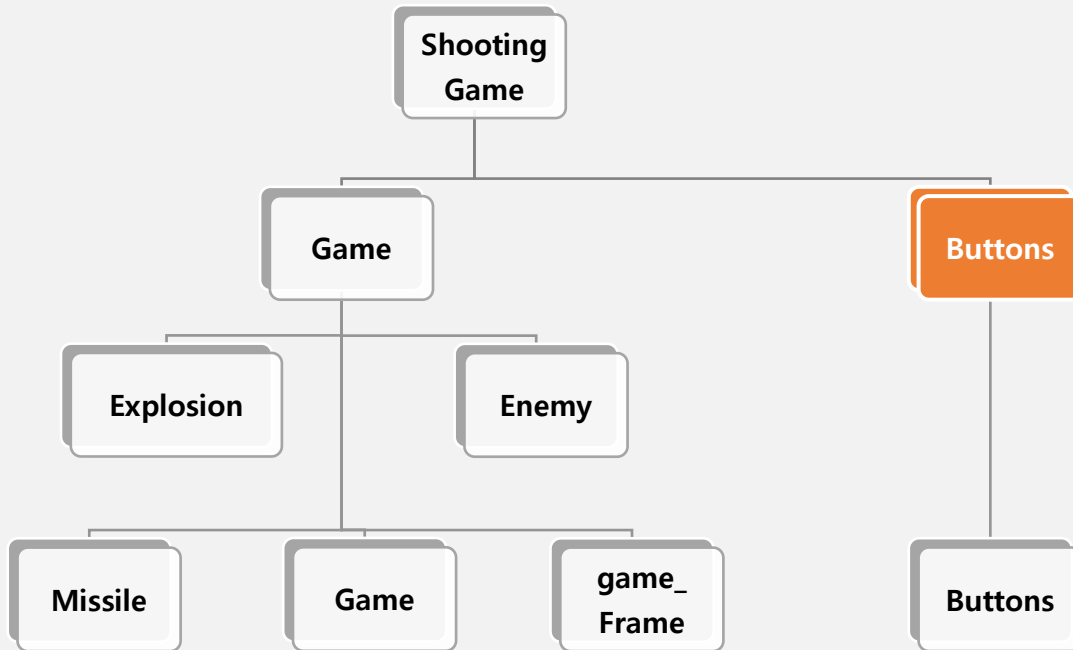
This class contains player info and GUI of game.

This class contains all interact between Game.java classes. Present at 3rd index

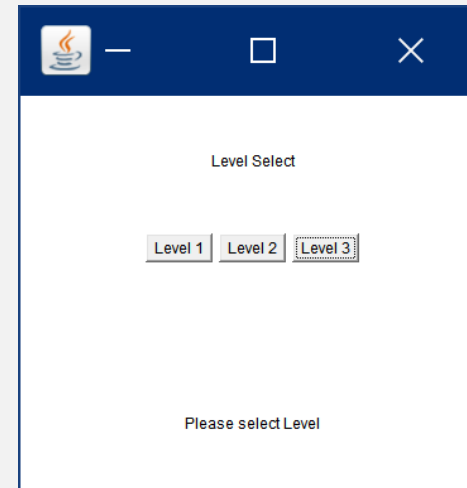


1 Package, 2 Java Files, 6 Classes

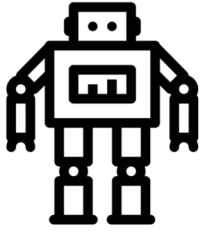
✓ Structure of Source Code



✓ About Button.java

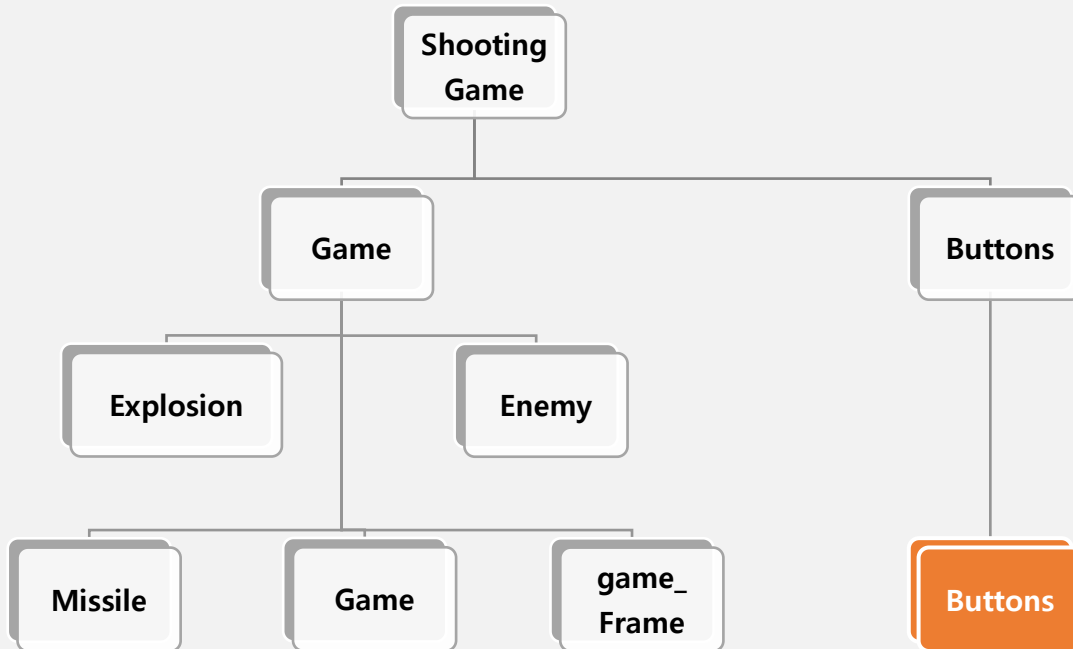


This java file deal with level of shooting game by button package



1 Package, 2 Java Files, 6 Classes

✓ Structure of Source Code

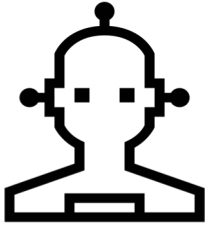


✓ About Button class

Just for control level of shooting game by button

Lv Button decide score, player HP, speed of player, missile, enemy and reload of missile

No need to deal with swings.jbutton, awt.button is enough for this project



Game.java – Interact between 5 classes

✓ Structure of Source Code

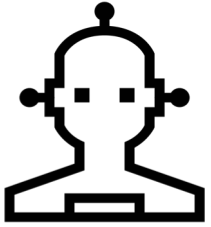


✓ About GUI

**Method. game_Frame contains
method init and start**

**Init: assign image to object or animation
Start: starting thread**

**Method. Update & draw: drawing each
object image then update on frame**



Game.java – Interact between 5 classes

✓ Structure of Source Code



✓ About Process

Enemy process add score, subtract player HP when crashed with enemy

Missile process remove missile and enemy when they are crash

Every process assign or delete own object on each array list



What I learn through this course – Object Design

✓ Designing based upon on Object

When I learn C++, I design class as path of data

But through this class, I finally learn the concept of class

Can design program perspective of Object

✓ More proficient Top-down design

I'm used to procedural programming cause start programming by C language

This course make me another way to designing Top-down way

More convenient, more efficient



What I learn through this course – Variable library

✓ Compiler course – XML by Jsoup

```
1 package Jsoup;
2
3 import org.jsoup.Jsoup;
4 import org.jsoup.nodes.Document;
5 import java.io.*;
6
7 public class Test{
8     public static void main(String[] args) throws Exception{
9         File input = new File(
10             "C:/Users/user/Desktop/다운로드/Debussy_-_Deux_arabesques/lg-20474636.
11             Document doc = Jsoup.parse(input, "UTF-8");
12
13             System.out.println(doc);
14         }
15 }
```

Compiler Course: Make JAVA can read XML(UTF-8) File

✓ GUI library – awt & swing

```
import java.awt.Button;
import java.awt.FlowLayout;
import java.awt.Frame;
import java.awt.GridLayout;
import java.awt.Label;
import java.awt.Panel;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.WindowAdapter;
import java.awt.event.WindowEvent;
import javax.swing.*;
import java.util.Random;
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.util.*;
```

OOPS course: Make GUI of Shooting Game by library

Thank you