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package com.example.lapa12;

public enum Element {

GEO, CRIO, ELECTRO, HYDRO, DENDRO, FIRE, ANEMO

}

package com.example.lapa12;

import javafx.scene.image.Image;

public class Hilichurl {

private int level;

private int XP;

final int maxXP;

private String name;

private Image image;

public Hilichurl(int level) {

this.level = level;

if (level <= 0) {

this.maxXP = 100;

this.XP = this.maxXP;

} else if (level > 0 && level < 30) {

this.maxXP = 1000;

this.XP = this.maxXP;

} else if (level >= 30 && level < 70) {

this.maxXP = 5000;

this.XP = this.maxXP;

} else if (level >= 70 && level < 100) {

this.maxXP = 10000;

this.XP = this.maxXP;

} else {

this.maxXP = 15000;

}

this.name = "Hilichurl";

this.image = new Image("https://i.pinimg.com/564x/31/63/13/31631396befea4c9e031a9639b42d8fe.jpg", 150, 140, true, true);

}

String printInfo() {

return "This is " + this.getName() + " of " + this.getLevel() + " level with " + this.getXP() + " XP";

}

void recovery (){

this.XP=this.maxXP;

}

public int getLevel() {

return level;

}

public void setLevel(int level) {

this.level = level;

}

public int getXP() {

return XP;

}

public Image getImage() {

return image;

}

public void setImage(Image image) {

this.image = image;

}

public void setXP(int XP) {

this.XP = XP;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

}

package com.example.lapa12;

import javafx.scene.image.Image;

public class HilichurlFighter extends Hilichurl{

private Element club;

public HilichurlFighter(int level, Element club) {

super(level);

this.club = club;

this.setName("Fighter");

this.setImage(new Image("https://i.pinimg.com/564x/46/01/1f/46011f57136f6e991cb1f1b996448f7e.jpg", 130, 140, true, true));

}

public Element getClub() {

return club;

}

@Override

String printInfo(){

return super.printInfo() +"with " + this.getClub() + " club ";

}

}

package com.example.lapa12;

import javafx.scene.image.Image;

public class HilichurlGrenadier extends Hilichurl {

private Element slime;

public HilichurlGrenadier(int level, Element slime) {

super(level);

this.slime = slime;

this.setImage(new Image("https://i.pinimg.com/564x/b2/5e/fe/b25efe338b7edb060527d08a3b6376ac.jpg", 150, 140, true, true));

this.setName("Grenadier");

}

public Element getSlime() {

return slime;

}

public void setSlime(Element slime) {

this.slime = slime;

}

@Override

String printInfo(){

return super.printInfo()+ " with " + this.getSlime()+ " slime";

}

}

package com.example.lapa12;

import javafx.scene.image.Image;

public class HilichurlGuard extends HilichurlFighter{

private Element shield;

public HilichurlGuard(int level, Element club, Element shield) {

super(level, club);

this.shield = shield;

this.setImage(new Image("https://i.pinimg.com/564x/c9/60/19/c960197d6ec5561bb1af794980d224f7.jpg", 130, 140, true, true));

this.setName("Guard");

}

public Element getShield() {

return shield;

}

public void setShield(Element shield) {

this.shield = shield;

}

@Override

String printInfo(){

return super.printInfo() + " and " + this.getShield() + " shield";

}

}

package com.example.lapa12;

import javafx.scene.image.Image;

public class HilichurlShooter extends Hilichurl{

private Element crossbow;

public HilichurlShooter(int level, Element crossbow) {

super(level);

this.crossbow = crossbow;

this.setImage(new Image("https://i.pinimg.com/564x/25/99/cb/2599cbc60666fdec02f277c85d6c95b3.jpg", 150, 140, true, true));

this.setName("Shooter");

}

public Element getCrossbow() {

return crossbow;

}

public void setCrossbow(Element crossbow) {

this.crossbow = crossbow;

}

@Override

String printInfo(){

return super.printInfo() + " with " + this.getCrossbow() + " crossbow";

}

}

package com.example.lapa12;

import javafx.scene.image.Image;

public class Mitachurl extends Hilichurl{

private Element axe;

private Element shield;

public Mitachurl(int level, Element axe, Element shield) {

super(level);

this.axe = axe;

this.shield = shield;

this.setImage(new Image("https://i.pinimg.com/564x/69/33/13/6933133dc9a3480007564d366869b54c.jpg", 130, 140, true, true));

this.setName("Mitachurl");

}

@Override

String printInfo(){

return super.printInfo() + " with " + this.getAxe() + " axe and " + this.getShield()+ " shield";

}

public Element getAxe() {

return axe;

}

public void setAxe(Element axe) {

this.axe = axe;

}

public Element getShield() {

return shield;

}

public void setShield(Element shield) {

this.shield = shield;

}

}

package com.example.lapa12;

import javafx.scene.image.Image;

public class Lawachurl extends Mitachurl{

private Element shell;

public Lawachurl(int level, Element axe, Element shield, Element shell) {

super(level, axe, shield);

this.shell = shell;

this.setImage(new Image("https://i.pinimg.com/564x/75/a2/77/75a27757ef920f0f6a8c8f0addf216d7.jpg", 130, 140, true, true));

this.setName("Grenadier");

}

@Override

String printInfo(){

return super.printInfo() + " and " + this.getShell() + " shell";

}

public Element getShell() {

return shell;

}

public void setShell(Element shell) {

this.shell = shell;

}

}

package com.example.lapa12;

import javafx.scene.control.Label;

import javafx.scene.image.ImageView;

import javafx.scene.layout.GridPane;

import java.io.FileNotFoundException;

public class Logic {

public Hilichurl[] createHilichurls(Hilichurl[] hilichurls) throws FileNotFoundException {

hilichurls[0] = new Hilichurl(20);

hilichurls[1] = new Mitachurl(44, Element.ANEMO, Element.DENDRO);

hilichurls[2] = new HilichurlGrenadier(67, Element.ANEMO);

hilichurls[3] = new HilichurlShooter(55, Element.ELECTRO);

hilichurls[4] = new HilichurlFighter(30, Element.FIRE);

hilichurls[5] = new Lawachurl(89, Element.HYDRO, Element.GEO, Element.FIRE);

hilichurls[6] = new HilichurlGuard(78, Element.CRIO, Element.GEO);

return hilichurls;

}

public Factory[] createHilichurlsFactories(Factory[] factories) throws FileNotFoundException {

factories[0] = new HilichurlFactory();

factories[1] = new MitachurlFactory();

factories[2] = new HilichurlGrenadierFactory();

factories[3] = new HilichurlShooterFactory();

factories[4] = new HilichurlFighterFactory();

factories[5] = new LawachurlFactory();

factories[6] = new HIlichurlGuardFactory();

return factories;

}

public Hilichurl[] recoverHilichurls(Hilichurl[] hilichurls){

for (Hilichurl hilichurl :

hilichurls) {

hilichurl.recovery();

}

return hilichurls;

}

public void showHilichurls(Hilichurl[] hilichurls, GridPane gridPane){

Label label = new Label();

label.setWrapText(true);

gridPane.add(new ImageView(hilichurls[0].getImage()), 2,0);

label.setText(hilichurls[0].printInfo());

gridPane.add(label, 2,1);

for (int i = 1; i < 5 ; i++) {

Label label1 = new Label();

label1.setWrapText(true);

label1.setText(hilichurls[i].printInfo());

if (i<=2){

gridPane.add(new ImageView(hilichurls[i].getImage()), i-1,2);

gridPane.add(label1, i-1,3);

}

else {

gridPane.add(new ImageView(hilichurls[i].getImage()), i, 2);

gridPane.add(label1, i,3);

}

}

Label label2 = new Label();

label2.setWrapText(true);

gridPane.add(new ImageView(hilichurls[5].getImage()), 0,4);

label2.setText(hilichurls[5].printInfo());

gridPane.add(label2, 0,5);

Label label3 = new Label();

label3.setWrapText(true);

gridPane.add(new ImageView(hilichurls[6].getImage()), 4,4);

label3.setText(hilichurls[6].printInfo());

gridPane.add(label3, 4,5);

}

}

package com.example.lapa12.factories;

import com.example.lapa12.heros.Hilichurl;

import java.io.FileNotFoundException;

public abstract class Factory {

public abstract Hilichurl create() throws FileNotFoundException;

}

package com.example.lapa12.factories;

import com.example.lapa12.heros.Hilichurl;

import java.io.FileNotFoundException;

public class HilichurlFactory extends Factory{

@Override

public Hilichurl create() throws FileNotFoundException {

return new Hilichurl(100);

}

}

package com.example.lapa12.factories;

import com.example.lapa12.Element;

import com.example.lapa12.heros.Hilichurl;

import com.example.lapa12.heros.HilichurlFighter;

import java.io.FileNotFoundException;

public class HilichurlFighterFactory extends Factory{

@Override

public Hilichurl create() throws FileNotFoundException {

return new HilichurlFighter(56, Element.GEO);

}

}

package com.example.lapa12.factories;

import com.example.lapa12.Element;

import com.example.lapa12.heros.Hilichurl;

import com.example.lapa12.heros.HilichurlGrenadier;

import java.io.FileNotFoundException;

public class HilichurlGrenadierFactory extends Factory{

@Override

public Hilichurl create() throws FileNotFoundException {

return new HilichurlGrenadier(99, Element.HYDRO);

}

}

package com.example.lapa12.factories;

import com.example.lapa12.Element;

import com.example.lapa12.heros.Hilichurl;

import com.example.lapa12.heros.HilichurlGuard;

import java.io.FileNotFoundException;

public class HIlichurlGuardFactory extends Factory{

@Override

public Hilichurl create() throws FileNotFoundException {

return new HilichurlGuard(69, Element.FIRE, Element.DENDRO);

}

}

package com.example.lapa12.factories;

import com.example.lapa12.Element;

import com.example.lapa12.heros.Hilichurl;

import com.example.lapa12.heros.HilichurlShooter;

import java.io.FileNotFoundException;

public class HilichurlShooterFactory extends Factory{

@Override

public Hilichurl create() throws FileNotFoundException {

return new HilichurlShooter(55, Element.ANEMO);

}

}

package com.example.lapa12.factories;

import com.example.lapa12.Element;

import com.example.lapa12.heros.Hilichurl;

import com.example.lapa12.heros.Lawachurl;

import java.io.FileNotFoundException;

public class LawachurlFactory extends Factory{

@Override

public Hilichurl create() throws FileNotFoundException {

return new Lawachurl(80, Element.ELECTRO, Element.GEO, Element.FIRE);

}

}

package com.example.lapa12.factories;

import com.example.lapa12.Element;

import com.example.lapa12.heros.Hilichurl;

import com.example.lapa12.heros.Mitachurl;

import java.io.FileNotFoundException;

public class MitachurlFactory extends Factory{

@Override

public Hilichurl create() throws FileNotFoundException {

return new Mitachurl(79, Element.HYDRO, Element.CRIO);

}

}

package com.example.lapa12;

import javafx.animation.AnimationTimer;

import javafx.scene.Node;

import javafx.scene.Scene;

public class Movement {

boolean goUp, goDown, goRight, goLeft;

AnimationTimer animationTimer;

public void keyPress(Scene scene, Node hero, double x, double y){

moveHeroTo(x, y,hero);

scene.setOnKeyPressed(keyEvent -> {

switch (keyEvent.getCode()){

case UP -> goUp =true;

case DOWN -> goDown=true;

case LEFT -> goLeft = true;

case RIGHT -> goRight = true;

}

});

scene.setOnKeyReleased(keyEvent -> {

switch (keyEvent.getCode()){

case UP -> goUp =false;

case DOWN -> goDown=false;

case LEFT -> goLeft = false;

case RIGHT -> goRight = false;

}

});

animationTimer = new AnimationTimer() {

@Override

public void handle(long l) {

int dx=0, dy=0;

if (goUp) dy-=2;

if (goDown) dy+=2;

if (goRight) dx+=2;

if (goLeft) dx-=2;

moveHeroBy(dx, dy, hero);

}

};

animationTimer.start();

}

private void moveHeroBy(int dx, int dy, Node hero){

if (dx==0 && dy==0) return;

double cx = hero.getBoundsInLocal().getWidth()/2;

double cy = hero.getBoundsInLocal().getHeight()/2;

double x = cx + hero.getLayoutX() + dx;

double y = cy + hero.getLayoutY() + dy;

moveHeroTo(x, y, hero);

}

private void moveHeroTo(double x, double y, Node hero){

double cx = hero.getBoundsInLocal().getWidth()/2;

double cy = hero.getBoundsInLocal().getHeight()/2;

if (x-cx>=0 &&

x+cx<=Main.W &&

y-cy>=0 &&

y+cy<=Main.H){

hero.relocate(x-cx, y-cy);

}

}

public void stopTimer(){

if (this.animationTimer!=null){

animationTimer.stop();

}

}

}

package com.example.lapa12;

import com.example.lapa12.factories.Factory;

import com.example.lapa12.heros.Hilichurl;

import javafx.application.Application;

import javafx.event.ActionEvent;

import javafx.event.EventHandler;

import javafx.scene.Group;

import javafx.scene.Node;

import javafx.scene.Scene;

import javafx.scene.control.Menu;

import javafx.scene.control.MenuBar;

import javafx.scene.control.MenuItem;

import javafx.scene.image.Image;

import javafx.scene.image.ImageView;

import javafx.stage.Stage;

import java.io.FileInputStream;

import java.io.FileNotFoundException;

import java.util.ArrayList;

public class Main extends Application {

public static final int W = 700;

public static final int H = 700;

public static void main(String[] args) {

launch(args);

}

@Override

public void start(Stage stage) throws FileNotFoundException {

Movement movement = new Movement();

Menu menu = new Menu("Choose character");

MenuItem[] menuItems = new MenuItem[7];

Hilichurl[] characters = new Hilichurl[7];

Factory[] factories = new Factory[7];

Logic logic = new Logic();

logic.createHilichurls(characters);

logic.createHilichurlsFactories(factories);

for (int i = 0; i < menuItems.length; i++) {

menuItems[i] = new MenuItem(characters[i].getName());

menu.getItems().add(menuItems[i]);

}

MenuBar menuBar = new MenuBar(menu);

ArrayList<Image> heroImage = new ArrayList<>();

heroImage.add(new Image(new FileInputStream("src/main/java/com/example/lapa12/images/empty.jpg"), 1, 1, true, true));

ArrayList<Node> hero = new ArrayList<>();

hero.add(new ImageView(heroImage.get(0)));

Group root = new Group(menuBar, hero.get(0));

Scene scene = new Scene(root, W, H);

stage.setTitle("lapa1,2");

stage.setScene(scene);

stage.show();

EventHandler<ActionEvent> event = e -> {

int index=menu.getItems().indexOf((MenuItem)e.getSource());

//root.getChildren().remove(hero[0]);

try {

heroImage.add(factories[index].create().getImage());

} catch (FileNotFoundException ex) {

throw new RuntimeException(ex);

}

hero.add(new ImageView(heroImage.get(heroImage.size()-1)));

scene.setOnMouseClicked(mouseEvent -> {

double x = mouseEvent.getX();

double y = mouseEvent.getY();

try{

root.getChildren().add(hero.get(hero.size()-1));

movement.keyPress(scene, hero.get(hero.size()-1), x, y);

} catch (Exception exception){

System.out.println("низя так");

}

});

movement.stopTimer();

};

for (MenuItem menuItem : menuItems) {

menuItem.setOnAction(event);

}

}

}

