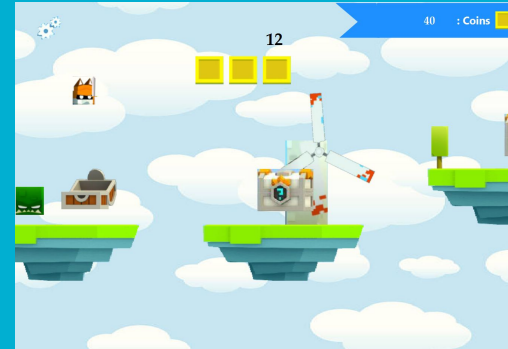
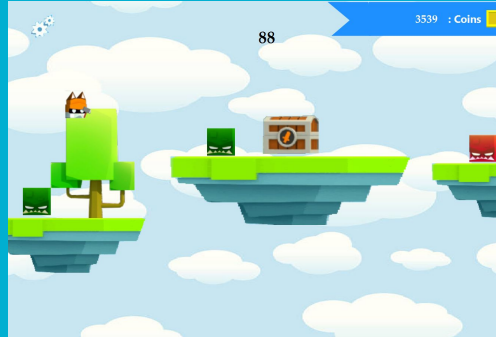


WILL HERO



Advanced Programming- Monsoon 2021 Project Submission

- Guide: Dr. Vivek Kumar
- Teaching Fellow: Bhawna Gupta
- Teaching Assistant : Suyashi Singhal

Made by:
Diya Ahuja
Shagun Mohta

Using JavaFX

- Hero jump and collision - Used keyframes and timelines to implement gravity which works throughout the game and collision is checked using `node.intersects()` through bounds local to screen
- Infinite Screen and Hero moving forward- Moved all the game objects to the left with each mouse press using ()
- Menu switch and translation- Used Animations and object properties to change opacity and translate the menu anchor panes
- Open and close treasure chests and other GUI effects upon collision by switching imageviews after condition check
- In addition to these key features a lot of our game is developed using JAVAfx :)



JAVA OOPs Implementation

Inheritance

Used in objects like orcs and subtypes(green,red),treasure chests and types

Association and Composition

Illustrated class relationships in UML diagrams

Polymorphism
Function overloading used at various points in the code

Iterator

Iterating over Game_Objects arraylist throughout the code

Decorator

Used In the Serializable method

Template

GetImage,isalive, collide functions in orc a

State

Implemented throughout our program

Encapsulation

All classes have private/protected attributes and public getter and setter methods to ensure data is encapsulated

Interfaces

Serializable, movable interfaces,

Abstract classes

Game objects is an abstract class with method collide

Individual Effort

- Diya: Object collision implementation, gravity implementation, implementation and transition of GUI components (FXML), serialisation of objects, serialisation of hero, movement of hero
- Shagun: Presentation, Help, save me, game over, Menu page -Gui, Translation animation, Gravity, hero jump, Icons, java classes- game objects, weapon chest, coin chest, obstacles , ...