

LITTLE ANIMAL HORROR ZOO

Project Presentation

Q1

```
1 // Attributes
2 private String species;
3 private int[] position = { 0, 0 };
4
5 // Constructor
6 public Animals(String newSpecies,
7     species = newSpecies;
8     position[0] = x;
9     position[1] = y;
10 }
11
12 // Methods
13
14 // Move method - modify animal's position
15 public void move(String direction) {
16     if (direction == "left") {
17         position[0] = position[0] -
18             1;
19     } else if (direction == "right") {
20         position[0] = position[0] +
21             1;
22     } else if (direction == "up") {
23         position[1] = position[1] +
24             1;
25     } else if (direction == "down") {
26         position[1] = position[1] -
27             1;
28     }
29 }
```

USE CASES DESCRIPTION

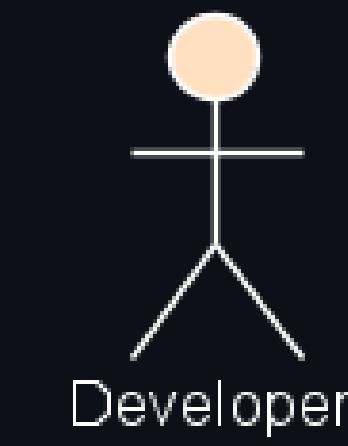
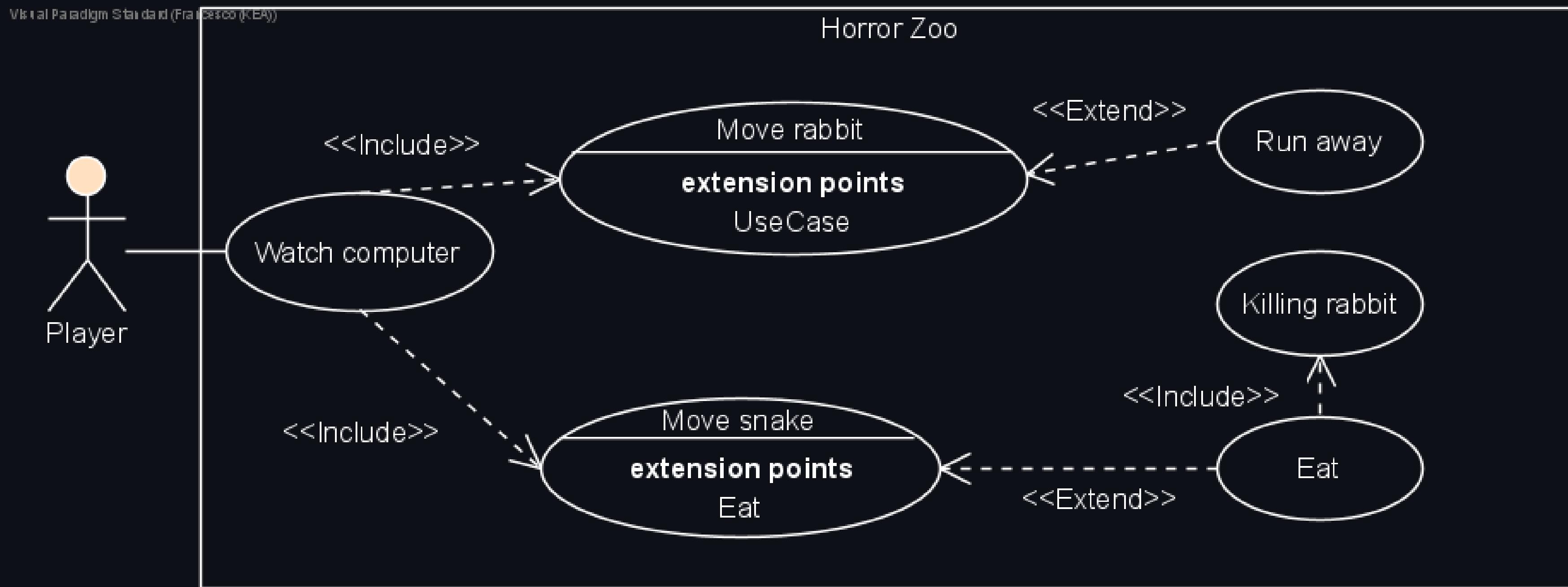
Q2

Main success scenario: The Player launches the code. Programm types out movement of the Rabbit and the Snake, in the end snake catches rabbit, computer types out dialogue and position of crime sceene.

Alternatate scenario: The Player lounches the code. Programm types out movement of the Rabbit and the Snake. In 5 turns Snake didn't catch Rabbit, Rabbit runs away. Computers types out outcome.

USE CASE DIAGRAM

Q3



CLASS DIAGRAM & DOMAIN MODEL

Q4



ATTRIBUTES & CONSTRUCTOR

Q5

```
1 public class Animals {  
2  
3     // Attributes  
4     private String species;  
5     private boolean alive = true;  
6     private int[] position = { 0, 0 };  
7  
8     // Constructor  
9     public Animals(String newSpecies, int x, int y) {  
10         species = newSpecies;  
11         position[0] = x;  
12         position[1] = y;  
13     }  
14 }
```

METHODS

06

```
17 // Move method - modify animal's position
18 public void move(String direction) {
19     if (direction == "left") {
20         position[0] = position[0] - 1;
21     } else if (direction == "right") {
22         position[0] = position[0] + 1;
23     } else if (direction == "up") {
24         position[1] = position[1] - 1;
25     } else if (direction == "down") {
26         position[1] = position[1] + 1;
27     } else {
28         System.out.println("incorrect parameter in the move method");
29     }
30     System.out.println("I am the " + species + ", I am standing on square " + position[0] + ", " + position[1]);
31 }
32
33 // Attack method (only for snake)
34 public void attack(int[] preyPosition, Animals prey) {
35     position = preyPosition;
36     System.out.println("I am the " + species + ", I am standing on square " + position[0] + ", " + position[1]);
37     System.out.println("Omn omn omn I'm eating you wahahahahaa!!!");
38     prey.die();
39 }
```

LOOP & RANDOM MOVE

07

```
9     // Playing loop
10    for (int i = 0; i <= 5; i++) {
11        System.out.println("\n");
12        predator.move(randomMove());
13        prey.move(randomMove());
14
15        if ((Math.abs(predator.getPosition()[0] - prey.getPosition()[0]) == 1
16            && Math.abs(predator.getPosition()[1] - prey.getPosition()[1]) == 0)
17            || (Math.abs(predator.getPosition()[0] - prey.getPosition()[0]) == 0
18                && Math.abs(predator.getPosition()[1] - prey.getPosition()[1]) == 1)) {
19            prey.beg();
20            predator.attack(prey.getPosition(), prey);
21            break;
22        }
23
24    }
25
26    if (prey.getAlive() == true) {
27        System.out.println("\n" + prey.getSpecies() + " ran away");
28    }
29
30 }
31
32 // Method that returns one randomly generated direction
33 private static String randomMove() {
34     String[] availableDirections = { "left", "right", "up", "down" };
35     java.util.Random random = new java.util.Random();
36     int randomDirection = random.nextInt(availableDirections.length);
37     return availableDirections[randomDirection];
38 }
```

Main Scenario

I am the Snake, I am standing on square 1, 3
I am the Rabbit, I am standing on square 0, 1

I am the Snake, I am standing on square 0, 3
I am the Rabbit, I am standing on square 0, 2
Noooooo Please don't eat me!!!

I am the Snake, I am standing on square 0, 2
Omn omn omn I'm eating you wahahahahahaa!!!

Alternate Scenario

I am the Snake, I am standing on square 1, 3
I am the Rabbit, I am standing on square -1, 2

I am the Snake, I am standing on square 2, 3
I am the Rabbit, I am standing on square 0, 2

I am the Snake, I am standing on square 3, 3
I am the Rabbit, I am standing on square 0, 1

I am the Snake, I am standing on square 3, 4
I am the Rabbit, I am standing on square 1, 1

I am the Snake, I am standing on square 3, 3
I am the Rabbit, I am standing on square 2, 1

I am the Snake, I am standing on square 2, 3
I am the Rabbit, I am standing on square 3, 1

Rabbit ran away

09

THANKS FOR
THE ATTENTION