



UNIVERSIDAD AUTÓNOMA DE SAN LUIS POTOSÍ



FACULTAD DE INGENIERÍA

ÁREA DE COMPUTACIÓN E INFORMÁTICA

PROGRAMACION ORIENTADA A OBJETOS

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MANUAL DEL PROGRAMADOR

ALUMNO:

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5 de Julio del 2018

Agenda de elaboración del trabajo

1ra Semana de Junio – Propuesta de proyecto.

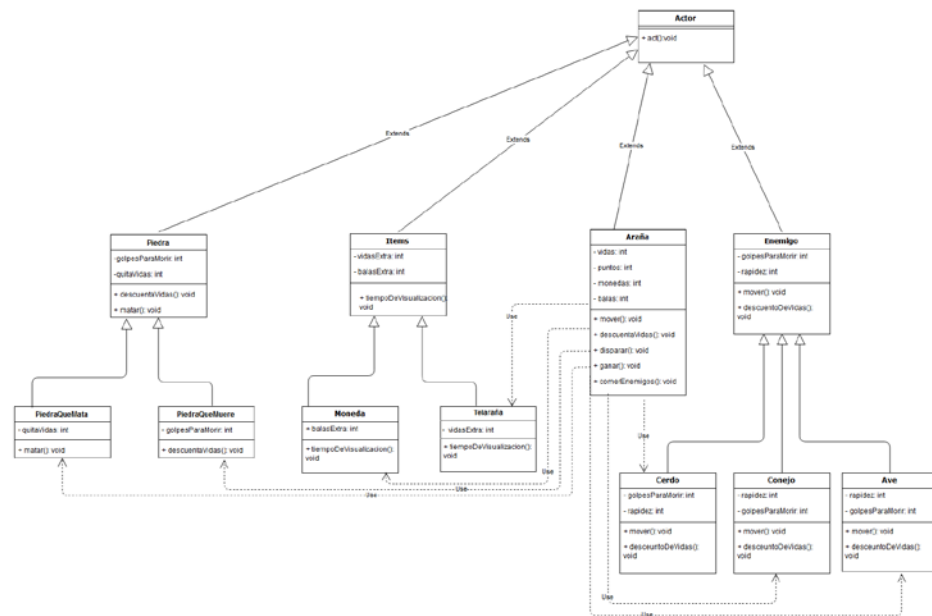
2da Semana de Junio – Elaboración de clases y asignación de imágenes

3ra Semana de Junio – Elaboración de comportamiento de clases, enemigos, mundo, jugador.

4ta Semana de Junio – falta de conocimiento en algunas clases de Greenfoot, recortar algunas funciones debido a que no había tiempo para realizarlo.

Diagrama de clases

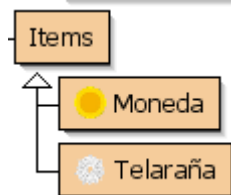
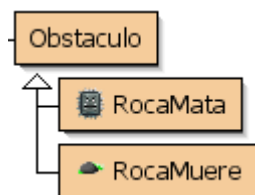
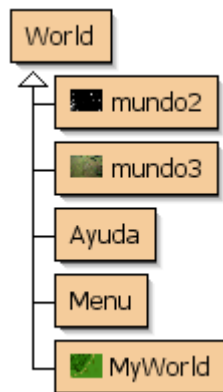
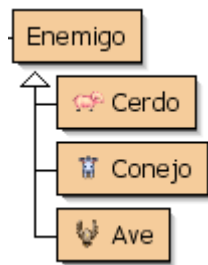
Test



Test

Herencia y Polimorfismo

En las siguientes clases se utiliza herencia como se puede apreciar en las imágenes al igual que polimorfismo evitando duplicidad de código y pues se reutilizan los constructores la igual que algunos métodos que se les agregan parámetros.



Class Enemy

java.lang.Object

greenfoot.Actor

Enemy

```
public class Enemy extends greenfoot.Actor
```

La clase Enemy hereda a Cerdo, Conejo y Ave.

Version:

4 jul 2018

Author:

AIVN

Constructor Summary

Enemigo ()	
-----------------------------	--

Method Summary

void	act ()
------	-------------------------

Act - do whatever the Enemigo wants to do.

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Enemigo

```
public Enemigo()
```

Method Detail

act

```
public void act()
```

Act - do whatever the Enemigo wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `greenfoot.Actor`

Class Cerdo

```
java.lang.Object
```

```
greenfoot.Actor
```

```
Enemigo
```

```
Cerdo
```

```
public class Cerdo extends Enemigo
```

Write a description of class Cerdo here.

Version:

(a version number or a date)

Author:

(your name)

Constructor Summary

[Cerdo\(\)](#)

Method Summary

void	act() Act - do whatever the Cerdo wants to do.
void	lookForAraña() Método que espera a la araña para poder matarla
void	muevete() Método Muevete el cual le da un movienito aleatorio al enemigo
void	puntos() Método que genera puntos a la araña al matar un cerdo

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Cerdo
public Cerdo()

Method Detail

act

```
public void act()
```

Act - do whatever the Cerdo wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `Enemigo`

lookForAraña

```
public void lookForAraña()
```

Método que espera a la araña para poder matarla

muevete

```
public void muevete()
```

Método Muevete el cual le da un movienito aleatorio al enemigo

puntos

```
public void puntos()
```

Método que genera puntos a la araña al matar un cerdo

Class Conejo

```
java.lang.Object
```

```
greenfoot.Actor
```

```
Enemigo
```

```
Conejo
```

```
public class Conejo extends Enemigo
```

Write a description of class Conejo here.

Version:

(a version number or a date)

Author:

(your name)

Constructor Summary

[Conejo](#) ()

Constructor de La clase Conejo

Method Summary

void [act](#) ()

Act - do whatever the Conejo wants to do.

void [lookForAraña](#) ()

Método que espera a la araña para poder matarla

void [muevete](#) ()

Método Muevete el cual le da un movienito aleatorio al enemigo

void [puntos](#) ()

Método que genera puntos a la araña al matar un conejo

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Conejo

```
public Conejo()
```

Constructor de La clase Conejo

Method Detail

act

```
public void act()
```

Act - do whatever the Conejo wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `Enemigo`

lookForAraña

```
public void lookForAraña()
```

Método que espera a la araña para poder matarla

muevete

```
public void muevete()
```

Método Muevete el cual le da un movienito aleatorio al enemigo

puntos

```
public void puntos()
```

Método que genera puntos a la araña al matar un conejo

Class Ave

java.lang.Object

greenfoot.Actor

Enemigo

Ave

```
public class Ave extends Enemigo
```

Write a description of class Ave here.

Version:

(a version number or a date)

Author:

(your name)

Constructor Summary

Ave ()	
-------------------------	--

Method Summary

void	act ()
	Act - do whatever the Ave wants to do.
void	lookForAraña ()
	Método que espera a la araña para poder matarla

void	muevete () Método Muevete el cual le da un movienito aleatorio al enemigo
void	puntos () Método que genera puntos a la araña al matar un ave

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Ave

public **Ave**()

Method Detail

act

public void **act**()

Act - do whatever the Ave wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `Enemigo`

lookForAraña

```
public void lookForAraña()
```

Método que espera a la araña para poder matarla

muevete

```
public void muevete()
```

Método Muevete el cual le da un movienito aleatorio al enemigo

puntos

```
public void puntos()
```

Método que genera puntos a la araña al matar un ave.

Class Araña

```
java.lang.Object
```

```
greenfoot.Actor
```

Araña

```
public class Araña extends greenfoot.Actor
```

La clase Araña es el jugador principal el cual se mueve y mata a los

Version:

4-07-2018

Author:

AIVN

Constructor Summary

[Araña](#) ()

Constructor de la Clase Araña

Method Summary

void	<u>act</u> () Act - do whatever the Araña wants to do.
void	<u>checkPressKey</u> () Método que realiza el cambio de movimiento de la araña y dispar la bala
int	<u>decrementaVidas</u> () Método que quita vidas y si vidas = 0 enviaun mensaje que has muerto
void	<u>dispara</u> () Metodo que dispara una bala y la elimina cuando llega al finalde al coordenada x
void	<u>lookForAve</u> () Método que espera un Ave si lo toca este desaparece del mundo y muere
void	<u>lookForCerdo</u> () Método que espera un Cerdo si lo toca este desaparece del mundo y muere
void	<u>lookForConejo</u> () Método que espera un Conejo si lo toca este desaparece del mundo y muere
void	<u>lookForMoneda</u> () Metodo que espera hasta tocar una moneda
void	<u>lookforRocaMata</u> () Método que muestra en el mundo una roca si la tocas te quita una vida
void	<u>lookForRocaMuere</u> () Método que espera una Roca para destruirla y le da vidas a la araña
void	<u>lookForTelaraña</u> () Metodo que espera hasta que toques la telaraña y te de una vida
void	<u>muevete</u> () Método que reliza el movimiento de la araña

int	<u>puntos()</u> Método que indica los puntos que vas a acumulando
void	<u>quitaVida()</u> Método que te quita vidas y te coloca en una posicion inicial cada vez que pierdes una.
void	<u>sumaVida()</u> Método que suma vidas y te pasa al nivel 2
void	<u>sumaVida2()</u> Método que te da la opcion de tomas la moneda y te envia al nivel 3
void	<u>switchImage()</u> Método que realiza el cambio de imagenes
void	<u>verificaVidas()</u> Método que verifica si ya no tienes vidas cuando vudas = 0 envia un texto en pantalla para indicar que perdiste.

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Araña

```
public Araña()
```

Constructor de la Clase Araña

Method Detail

act

```
public void act()
```

Act - do whatever the Araña wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `greenfoot.Actor`

Class Bala

```
java.lang.Object
```

```
greenfoot.Actor
```

Bala

```
public class Bala extends greenfoot.Actor
```

La clase Bala permite elimina del mundo a los enemigos.

Version:

4 jul 2018

Author:

AIVN

Constructor Summary

[Bala\(\)](#)

Method Summary

void	act() Act - do whatever the Bala wants to do.
void	lookForAve()
void	lookForCerdo()
void	lookForConejo()

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Bala

```
public Bala()
```

Method Detail

act

```
public void act()
```

Act - do whatever the Bala wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `greenfoot.Actor`

lookForAve

```
public void lookForAve()
```

lookForCerdo

```
public void lookForCerdo()
```

lookForConejo

```
public void lookForConejo()
```

Class Boton

`java.lang.Object`

`greenfoot.Actor`

Boton

```
public class Boton extends greenfoot.Actor
```

Clase Boton, permite crear los botones que nos permitan cambiar de escenario

Version:

4 jul 2018

Author:

AIVN

Constructor Summary

Boton (int n) Constructor Boton	
--	--

Method Summary

void	act () Método que muestra los botones definidos, a traves del metodo muestra
void	muestra (int n) Método que crea botones ya definidos dependiendo del parámetro que llega

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Boton

```
public Boton(int n)  
    Constructor Boton
```

Method Detail

act

```
public void act()  
    Método que muestra los botones definidos, a traves del metodo muestra
```

Overrides:

act in class `greenfoot.Actor`

muestra

```
public void muestra(int n)  
    Método que crea botones ya definidos dependiendo del parámetro que llega
```

Class Obstaculo

`java.lang.Object`

`greenfoot.Actor`

Obstaculo

```
public class Obstaculo extends greenfoot.Actor
```

La clase Obtculo hereda a RocaMata y a RocaMuere.

Version:

4 jul 2018

Author:

Constructor Summary

[Obstaculo](#)()

Method Summary

void [act](#)()

Act - do whatever the Obstaculo wants to do.

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Obstaculo

public **Obstaculo**()

Method Detail

act

```
public void act()
```

Act - do whatever the Obstaculo wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class greenfoot.Actor

Class RocaMata

java.lang.Object

greenfoot.Actor

Obstaculo

RocaMata

```
public class RocaMata extends Obstaculo
```

La clase RocaMata este al momento de tocarla te quita una vida o te mueres.

Version:

(a version number or a date)

Author:

(your name)

Constructor Summary

RocaMata ()	
------------------------------	--

Method Summary

void [act](#)()

Act - do whatever the RocaMata wants to do.

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

RocaMata

public **RocaMata**()

Method Detail

[act](#)

public void **act**()

Act - do whatever the RocaMata wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `Obstaculo`

Class RocaMuere

java.lang.Object

greenfoot.Actor

Obstaculo

RocaMuere

```
public class RocaMuere extends Obstaculo
```

La clase RocaMuere es un Obstaculo que muere al tocarlo.

Version:

4 jul 2018

Author:

AIVN

Constructor Summary

RocaMuere ()	
-------------------------------	--

Method Summary

void	act ()
	Act - do whatever the RocaMuere wants to do.
void	puntos ()
	metodo que muere al tocarlo y ortorga 10 puntos

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

RocaMuere

```
public RocaMuere()
```

Method Detail

act

```
public void act()
```

Act - do whatever the RocaMuere wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class Obstaculo

puntos

```
public void puntos()
```

método que muere al tocarlo y ortorga 10 puntos

lass Items

java.lang.Object

greenfoot.Actor

Items

public class **Items** extends greenfoot.Actor

La clase Items es una clase que hereda a La clase Moneda y a la Clase Telaraña.

Version:

4 jul 2018

Author:

AIVN

Constructor Summary

Items ()	
---------------------------	--

Method Summary

void	act () Act - do whatever the Items wants to do.
------	---

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Items

```
public Items()
```

Method Detail

act

```
public void act()
```

Act - do whatever the Items wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `greenfoot.Actor`

Class Moneda

java.lang.Object

greenfoot.Actor

Items

Moneda

```
public class Moneda extends Items
```

La clase moneda es un item que da pase al siguiente nivel.

Version:

4 jul 2018

Author:

AIVN

Constructor Summary

Moneda ()	
----------------------------	--

Method Summary

void	act ()
------	-------------------------

Act - do whatever the Moneda wants to do.

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Moneda

public **Moneda**()

Method Detail

act

```
public void act()
```

Act - do whatever the Moneda wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class `Items`

Class `Telaraña`

`java.lang.Object`

`greenfoot.Actor`

`Items`

`Telaraña`

```
public class Telaraña extends Items
```

La clase es in item que otorga una vida al jugador.

Version:

4 jul 2018

Author:

AIVN

Constructor Summary

<code>Telaraña</code> ()	
---	--

Method Summary

void [act\(\)](#)

Act - do whatever the Telaraña wants to do.

Methods inherited from class greenfoot.Actor

addedToWorld, getImage, getIntersectingObjects, getNeighbours, getObjectsAtOffset, getObjectsInRange, getOneIntersectingObject, getOneObjectAtOffset, getRotation, getWorld, getWorldOfType, getX, getY, intersects, isAtEdge, isTouching, move, removeTouching, setImage, setLocation, setRotation, turn, turnTowards

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Telaraña

public **Telaraña**()

Method Detail

act

public void **act**()

Act - do whatever the Telaraña wants to do. This method is called whenever the 'Act' or 'Run' button gets pressed in the environment.

Overrides:

act in class Items
