

// CodersWithAttitudes  
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// APCS2 pd1  
// Final Project -- Island Survival Game  
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## ThimbleBerry

Instance Variables

- double nutrients
- boolean edible(yes)

## Plant (abstract)

Instance Variables

- boolean alive
- double nutrients
- boolean edible

Methods

- photosynthesize()
- + getAlive()

## ThimbleBush

Instance Variables

- boolean alive
- double growRate
- boolean edible(no)
- Queue thimbleBerries

Methods

- photosynthesize()
- + getAlive()
- + isEdible()

## Tree

Instance Variables

- boolean alive
- double height
- double growRate
- boolean edible (no)
- Queue barks

Methods

- photosynthesize()
- + getAlive()
- + isEdible()

## Petunia

Instance Variables

- boolean alive
- double growRate
- boolean edible(no)

Methods

- photosynthesize()
- + getAlive()
- + isEdible()

## Fern

Instance Variables

- boolean alive
- double nutrients
- double growRate
- boolean edible(yes)

Methods

- photosynthesize()
- + getAlive()
- + isEdible()

## Mushroom

Instance Variables

- boolean alive
- double nutrients
- double growRate
- boolean edible(yes)

Methods

- photosynthesize()
- + getAlive()
- + isEdible()

## GuavaTree

Instance Variables

- boolean alive
- double growRate
- boolean edible(no)

Methods

- photosynthesize()
- + getAlive()
- + isEdible()

## PalmTree

Instance Variables

- boolean alive
- double growRate
- boolean edible(no)

Methods

- photosynthesize()
- + getAlive()
- + isEdible()

## Leaf

Instance Variables

- boolean edible(no)

Resources :  
Palm Leaves  
Bark  
Fruits:  
Guava  
Coconut  
ThimbleBerries  
Edible Plants:  
Mushroom  
Fern

## PalmLeaf

Instance Variables

- boolean edible(no)

## Bark

Instance Variables

- boolean edible(no)

## Guava

Instance Variables

- double nutrients
- boolean edible(yes)

## Coconut

Instance Variables

- double nutrients
- boolean edible(yes)



# Animal (abstract)

## Instance Variables

- double nutrients
- double life

## Methods

- void attack()
- + double getLife()

## Frog

### Instance Variables

- double nutrients
- double life
- boolean edible

### Methods

- + void attack()
- + double getLife()

## Turkey

### Instance Variables

- double life
- double nutrients
- boolean edible

### Methods

- + void attack()
- + double getLife()
- + void fly()

## Fish

### Instance Variables

- double life
- double nutrients
- boolean edible

### Methods

- + void attack()
- + double getLife()

## WildBoar

### Instance Variables

- double life
- boolean edible
- double nutrients

### Methods

- + void attack()
- + double getLife()

## Fugu

### Instance Variables

- double nutrients
- boolean edible
- double life

### Methods

- + void attack()
- + double getLife()

## Tuna

### Instance Variables

- double nutrients
- boolean edible
- double life

### Methods

- + void attack()
- + double getLife()

## Catfish

### Instance Variables

- double nutrients
- boolean edible
- double life

### Methods

- + void attack()
- + double getLife()

# Island

## Instance Variables

- ArrayList<Animal> animals
- ArrayList<Plant> plants

## Methods

+ void rain()

# Player

## Instance Variables

- int age
- double height
- double weight
- double life
- double health
- double maxNutri
- ItemQueue<Object> items

## Methods

- + int getAge()
- + double getHeight()
- + double getWeight()
- + double getLife()
- + double getMaxNutri()
- + ItemQueue<Object> getItems()
- + void setAge(int)
- + void setHeight(double)
- + void setWeight(double)
- + void setLife(double)
- + void addItem(Object)
- + void hunt(Animal)
- + void harvest(Plant)
- + void eatAnimal()
- + void eatPlant()

# Main

+ Main Method