

Class Chateau

```
java.lang.Object
  greenfoot.Actor
    Establishment
      Chateau
```

```
public class Chateau
  extends Establishment
```

Chateau Class

Subclass of Establishment superclass, controls the main functions of each kingdom, such as choosing which troop to queue into training, and determining which establishment to upgrade. The color of the Chateau will be either gold or blue, based on its alliance.

Version:

April 2021

Author:

Andrew Qiao

Field Summary

Fields inherited from class Establishment

`alliance`, `healthBar`, `hp`, `maxHP`

Constructor Summary

Constructors

Constructor	Description
<code>Chateau</code> (int hp, int alliance, <code>String</code> name, int money)	Constructor for Chateau class, sets instance variables, initializes its ArrayLists and determines which colored picture should be showing.

void	act()	Called every act, determines which troops to queue and which upgrades to make based on the act count, also increments the act count.
void	addEstablishment (Establishment building, int establishmentType)	Called when a new establishment is added to the ArrayList of the chateau.
void	addMoney (int amount)	Called by the treasuries to add money to the chateau.
void	addTroop (Troop troop)	Called by the garrisons to add a troop to the ArrayList of troops.
protected void	explode()	Called when the chateau's HP reaches below 0, adds the rubble, removes all the troops and establishments, and removes this chateau.
ArrayList<Garrison>	getGarrisons()	Returns the ArrayList of garrisons.
boolean	getIsDestroyed()	Returns a boolean for whether or not the chateau is destroyed.
int	getMoney()	Getter method for the money variable, returns the amount of money.
String	getName()	Returns the name of the kingdom.
ArrayList<Treasury>	getTreasuries()	Returns the ArrayList of treasuries.
ArrayList<Troop>	getTroops()	Returns the ArrayList of troops.
void	removeGarrison (Garrison g)	Removes a garrison from the ArrayList of garrisons.
void	removeTreasury (Treasury t)	Removes a treasury from the ArrayList of treasuries.
void	removeTroop (Troop t)	Removes a troop from the ArrayList of troops.
void	setAlliance (int alliance)	Sets the alliance of the chateau, as well as all other troops and establishments under its command.

Methods inherited from class **Establishment**

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, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructor Detail

Chateau

```
public Chateau(int hp,
               int alliance,
               String name,
               int money)
```

Constructor for Chateau class, sets instance variables, initializes its ArrayLists and determines which colored picture should be showing.

Parameters:

hp - The HP the chateau will start off with

alliance - The alliance of the chateau, 0 is gold, 1 is blue

name - Name of the kingdom the chateau belongs to

money - Amount of money the kingdom starts off with

Method Detail

act

```
public void act()
```

addEstablishment

```
public void addEstablishment(Establishment building, int establishmentType)
```

Called when a new establishment is added to the ArrayList of the chateau.

Parameters:

`building` - The building to be added to the ArrayList

`establishmentType` - Type of establishment to be added (1 - treasury, 2 - garrison)

explode

```
protected void explode()
```

Called when the chateau's HP reaches below 0, adds the rubble, removes all the troops and establishments, and removes this chateau.

Specified by:

`explode` in class `Establishment`

removeTroop

```
public void removeTroop(Troop t)
```

Removes a troop from the ArrayList of troops.

Parameters:

`t` - The troop to be removed

getIsDestroyed

```
public boolean getIsDestroyed()
```

Returns a boolean for whether or not the chateau is destroyed.

setAlliance

```
public void setAlliance(int alliance)
```

Sets the alliance of the chateau, as well as all other troops and establishments under its command.

Overrides:

[setAlliance](#) in class [Establishment](#)

Parameters:

alliance - The alliance the chateau should be set to (0 - gold, 1 - blue)

removeGarrison

```
public void removeGarrison(Garrison g)
```

Removes a garrison from the ArrayList of garrisons.

Parameters:

g - The garrison to be removed from the ArrayList

removeTreasury

```
public void removeTreasury(Treasury t)
```

Removes a treasury from the ArrayList of treasuries.

Parameters:

t - The treasury to be removed from the ArrayList

addMoney

```
public void addMoney(int amount)
```

Called by the treasuries to add money to the chateau.

Parameters:

amount - The amount of money to be added

Called by the garrisons to add a troop to the ArrayList of troops.

Parameters:

troop - The troop to be added

getMoney

```
public int getMoney()
```

Getter method for the money variable, returns the amount of money.

Returns:

int The amount of money the chateau has

getName

```
public String getName()
```

Returns the name of the kingdom.

Returns:

String The name of the kingdom

getTroops

```
public ArrayList<Troop> getTroops()
```

Returns the ArrayList of troops.

Returns:

ArrayList The ArrayList of troops under the kingdom

getTreasures

```
public ArrayList<Treasury> getTreasures()
```

getGarrisons

```
public ArrayList<Garrison> getGarrisons()
```

Returns the ArrayList of garrisons.

Returns:

ArrayList The ArrayList of garrisons under the kingdom