Web Programming

Section: 021

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Assignment 4 – Battlefield Simulator

Date: 4/15/2015

Problem Statement:

I am attempting to make actors engage in combat when they get close to each other but for hobbits they will run away from the opposing army. Also added a method when actors get too low health they will not move because they are too weak. Hardest part of the assignment was to make actors not run past each other

The way I am engaging actors in combat is within the method called “startMoving” in the actor class.

Test plan:

Actor Class

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Task | Pre-condition | Post-condition | Test Method | Expected Result | Actual Result |
| Actor() initials values for instance variables | Instance variables must exist | Must be set to the value of its data type | Displaying it my printing | Get the initial values for that instance variable | success |
| Actor(Army) | Army must exist | Must be set to the value of its data type | Calling the method and get the army | Taking the value of the army that was called | success |
| combatRound(Actor) | Actor must exist | Actor must not have a null value | Calling the method with the opponent actor | This returns and decrease health value of the actor in combat | success |
| distanceTo(Actor) | Actor must exist | Actor must not have a null value | Calling the method with the opponent actor | Gives the distance of the opponent value | success |
| findNewLocation(Actor) | Actor must exist | Actor must not have a null value | Calling the method with the opponent actor | Find new location for the actor object | success |
| getactorSerial() | Actor object exists | Value returned from the getactorSerial() | Call the get serial method in an output statement | Gets the serial number from getactorSerial() | success |
| getArmyAllegiance() | Army must exist | Army cant be null | Calling the method | Get the army of that actor object | success |
| getHealth() | Actor object exists | The double variable will point at the health returned from getHealth() | Make my variable point to the returned value from getHealth() method. | Variable points to the returned value | success |
| getName() | Actor object exists | The String variable will point at the name returned from getName() | Make my variable point to the returned value from getName() method. | Variable points to the returned value | success |
| getSpeed() | Actor object exists | The double variable will point the speed returned from getSpeed() | Make my variable point to the returned value from getSpeed() method. | Variable points to the returned value | success |
| getStrength() | Actor object exists | The double variable will point the speed returned from getStrength() | Make my variable point to the returned value from getStrength() method. | Variable points to the returned value | success |
| inputAllFields() | Actor object exists | The values inputted must be their data type | Calling the method | it set all actor attributes | success |
| readObject(ObjectInputStream) | Actor object exists | Attributes must have values | Calling method save in simulator | Saves all values in actor object | success |
| resetAvatarAttributes() | Actor object exists | Attributes must have values | Calling the method | Redistribute values to actor object’s attributes | success |
| setArmyAllegiance(Army) | Army object exists | Actor must exist | Calling the method | Set the actor object to a armyallegiance | success |
| Actor setHealth(): test the lower boundary | Actor object exists | Actor object health falls between the range. | Input a value lower than the lower boundary | Sets health to lower boundary | success |
| setName(String) | Actor object exists | Actor object must have string value | Input strings | Set name to a new string | success |
| Actor setSpeed(): test the lower boundary | Actor object exists | Actor object speed falls between the range | Use a number lower than the lower boundary as argument/parameter | Sets speed to lower boundary | success |
| Actor setStrength(): test the lower boundary | Actor object exists | Actor object strength falls between the range | Input a negative number as parameter. That is out of range | Sets strength to lower boundary | success |
| startMoving() | Actor object exists | none | Calling this method | Will start the actor to move | success |
| suspendMoving() | Actor object exists | none | Calling this method | Will stop the actor to move | success |
| Actor toString(): test  display of object  contents, using an  implicit call of toString()  by outputing the object | Actor object exists | Actor object correctly displays strength, speed and health | Call the object in an output statement | Program outputs  Speed, strength, and health | success |
| toWeak() | Actor object exists | Must have a health value | Calling this method | Setting low health will stop actor to move | success |
| writeObject(ObjectOutputStream) | Actor object exists | Attributes must have values | Calling method save in simulator | restore all values in actor object | success |