

Test Plan

🕒 Created	@July 27, 2022 11:38 AM
▼ Class	RolePlayGame Test
▼ Type	
🔗 Materials	
☑ Reviewed	<input type="checkbox"/>
☰ Property	

1. testing three different gear initializations

- `Footwear (int defenseStrength, int attackStrength, String gearAdjective, String gearName)`
- `HandGear (int attackStrength, String gearAdjective, String gearName)`
- `HeadGear (int defenseStrength, String gearAdjective, String gearName)`

2. test combine methods with combinations

- `footwear1.combine(footwear2)`
- `headGear1.combine(headGear2)`
- `handGear1.combine(handGear2)`

3. invalid combinations will throw exception error

- `footwear1.combine(headGear1)`
- `footwear1.combine(handGear1)`
- `handGear1.combine(headGear1)`

```
Gear footwear1 = new Hoverboard(3,1, "Happy", "Hoverboard");
Gear footwear2 = new Sneakers(1,0,"Scurrying", "Sandals");
Gear headGear1 = new Hats(3, "Stylish","Baseball cap");
Gear headGear2 = new Helmets(3, "Metallic","Striped Helmet");
Gear handGear1 = new Shields(3, "heavy","Shield");
Gear handGear2 = new Swords(5, "sharp","Sword");

System.out.println("-----");
System.out.println("Object initialization test...");
System.out.println(footwear1.toString());
System.out.println(headGear1.toString());
System.out.println(handGear1.toString());
System.out.println("-----\n");
```

Console:

```

Object initialization test...
Happy Hoverboard -- defense strength: 3, attack strength: 1
Stylish Baseball cap -- defense strength: 3, attack strength: 0
heavy Shield -- defense strength: 0, attack strength: 3
-----

System.out.println("*****");
System.out.println("Valid combination test...");
System.out.println(footwear1.combine(footwear2).toString());
System.out.println(headGear1.combine(headGear2).toString());
System.out.println(handGear1.combine(handGear2).toString());
System.out.println("*****\n");

Console:
*****
Valid combination test...
Happy, Scurrying Sandals -- defense strength: 4, attack strength: 1
Stylish, Metallic Striped Helmet -- defense strength: 6, attack strength: 0
heavy, sharp Sword -- defense strength: 0, attack strength: 8
*****

System.out.println("-----");
System.out.println("invalid combination test...");
//      System.out.println(footwear1.combine(headGear1).toString());
System.out.println(footwear1.combine(handGear1).toString());
//      System.out.println(handGear1.combine(headGear1).toString());
System.out.println("-----");

Console:
-----
invalid combination test...
Exception in thread "main" java.lang.Exception: Cannot combine Footwear and HandGear
    at RolePlayingGames.AbstractGear.combine(AbstractGear.java:48)
    at RolePlayingGames.Main.main(Main.java:40)

```