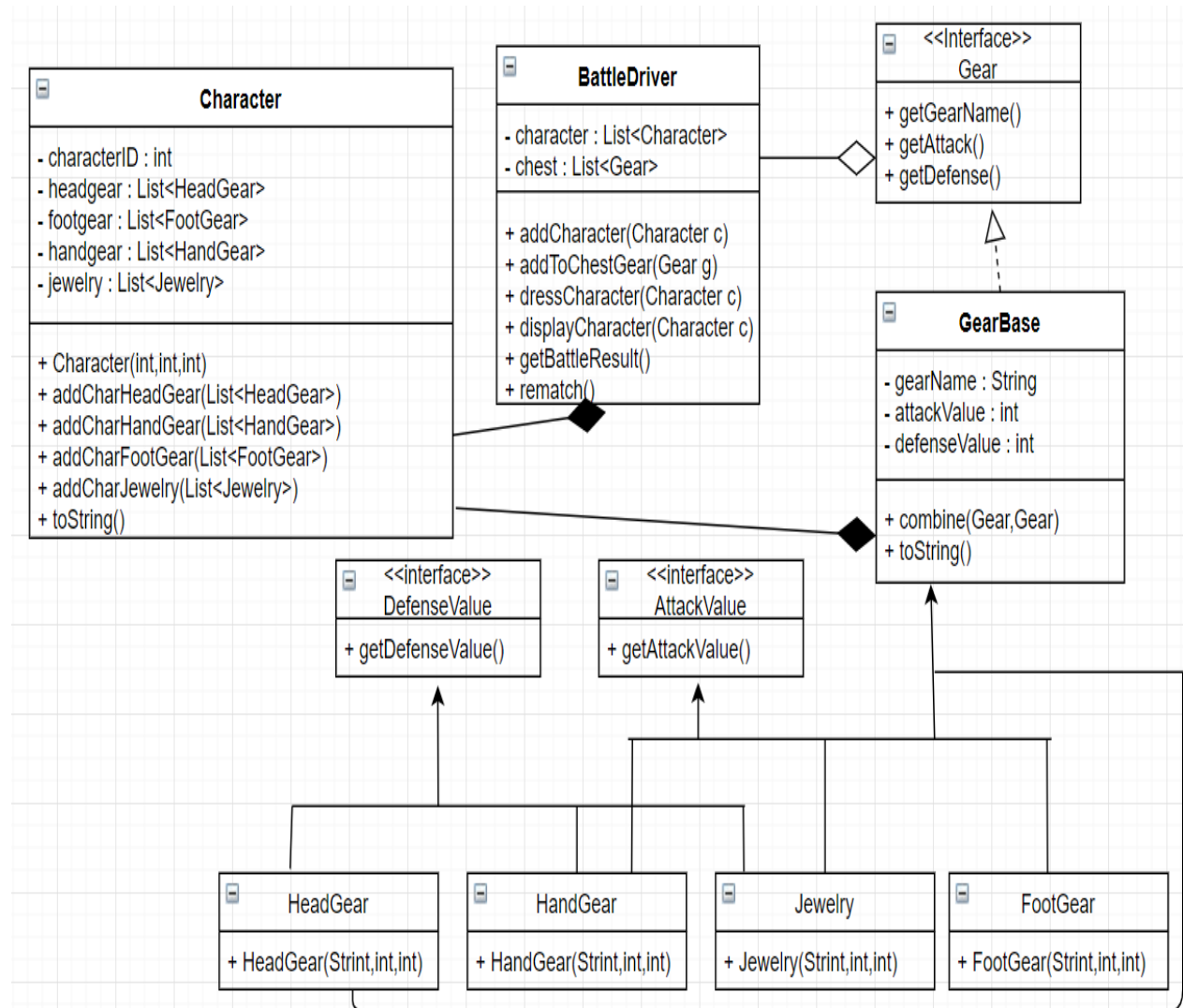# Modified Design Document Project 02—Equipping Characters

Modified design includes two new interfaces namely AttackValue and DefenseValue which enable gear equipment to implement only the specific interface which it initializes and implements in its class.

UML

Testing Plan

Test	actual	expected
Test create character 1	char1 = new Character(1,10,15); BattleDriver b; b.addCharacter(char1)	Character 1 Gear: Attack value : 10 Defence value : 15
Test create character 2	char2 = new Character(2,5,20); BattleDriver b; b.addCharacter(char2)	Character 2 Gear: Attack value : 5 Defence value : 20
Test add invalid character	Char1 = new Character(1,-5,10); BattleDriver b; b.addCharacter(char1)	IllegalArgumentException
Test add invalid character	Char1 = new Character(1,5,-10); BattleDriver b; b.addCharacter(char1)	IllegalArgumentException
Test add invalid character	Char1 = new Character(null,5,10); BattleDriver b; b.addCharacter(char1)	IllegalArgumentException
Add head gear to chest	Head1 = new HeadGear("Electic Mask",20,10); Head2 = new HeadGear("Speed Helmet",5,14); Battle Driver b; b.addToChestGear(head1) b.addToChestGear(head2)	>> HeadGear Electric mask Attack value: 20 Defense value : 10 Speed Helmet Attack value : 5 Defense value : 14
Add hand gear to chest	Hand1 = new HandGear("Electic Glove",2,10); Hand2 = new HandGear("Super sword",15, 7); Battle Driver b; b.addToChestGear(hand1) b.addToChestGear(hand2)	>> HandGear Electric Glove Attack value: 2 Defense value : 10 Super sword Attack value : 15 Defense value : 7

Add foot gear to chest	Foot1 = new FootGear("Electic Boot",70,10); Foot2 = new FootGear("Speed Skates",15,14); Battle Driver b; b.addToChestGear(Foot1) b.addToChestGear(Foot2)	>> FootGear Electric Boot Attack value: 70 Defense value : 10 Speed Skates Attack value : 15 Defense value : 14
Add jewellry to chest	J1 = new Jewellry("Electic Crown",70,10); J2 = new Jewellry("Speed pendant",15,14); Battle Driver b; b.addToChestGear(J1) b.addToChestGear(J2)	>> Jewelly Electric Crown Attack value: 70 Defense value : 10 Speed pendant Attack value : 15 Defense value : 14
Dress character	Head1 = new HeadGear("Electic Mask",20,10); Hand1 = new HandGear("Electic Glove",2,10); Foot1 = new FootGear("Electic Boot",70,10); J1 = new Jewellry("Electic Crown",70,10); Battle Driver b; b.addToChestGear(head1) b.addToChestGear(hand1) b.addToChestGear(Foot1) b.addToChestGear(J1) dressCharacter(Char1)	>> Character 1 Gear: Head gear - Electric mask Hand gear- Electric glove Foot gear – Electric boot Jewellry – Electric crown Attack value : 172 Defense value : 52
Test battle result when there is win	BattleDriver b; b.battleResult()	>> Character 1 wins Character 1 Damage = 20 Character 2 Damage = 70
Test battle result when there is tie	BattleDriver b; b.battleResult()	>> Players tie Character 1 Damage = 20

		Character 2 Damage = 20
Test rematch	BattleDriver b; b.rematch()	>> Rematch started Battle ground started 2 Players Players dressed with armor
Test combining gear names	Head1 = new HeadGear("Electic Mask",20,10); Head1 = new HeadGear("Super crown",2,10); Foot1 = new FootGear("Electic Boot",70,10); J1 = new Jewellry("Electic Crown",70,10); Battle Driver b; b.addToChestGear(head1) b.addToChestGear(hand1) b.addToChestGear(Foot1) b.addToChestGear(J1) dressCharacter(Char1)	>> Character 1 Gear: Head gear - Super Electric mask Foot gear – Electric boot Jewellry – Electric crown Attack value : 172 Defense value : 52