<<interface>>
IRolePlayBuilder

+ addCharacter(String, int, Strength, int, int, int) : IRolePlayBuilder
+ addHeadGear(Description, Strength, int): IRolePlayBuilder
+ addFootwearGear(Description, Strength, int): IRolePlayBuilder
+ addHandGear(Description, Strength, int): IRolePlayBuilder
+ addJwellery(Description, Strength, int): IRolePlayBuilder

Driver

+ populateChest()
+ dressCharacter()
+ printCharcterDetails(): String
+ predictWin()
+ reMatch()

RolePlayBuilder

+RolePlayBuilder()
+ getTotalStrength: Strength
+ toString(): String
+ build() : ICharacter

0..1

<<interface>>
ICharacter

+ addGear(): IGear
+ removeGear(): IGear
+ CalculateTotalStrength(): Strength

Character

+ name: String
+ hitPoints: int
+ characterStrength: Strength
+ maxNoOfHeadGears: int
+ maxNoOfFootWears: int
+ maxNoOfHandGears: int
+ maxNoOfJewelry: int
- gearList: List<IGear>
- discardedGearList: List<IGear>

- isGearCompatibleWithOtherGears() : IGear
- CanHeadGearsBeAdded(): CheckStatus
- CanFootWearsBeAdded(): CheckStatus
- CanHandGearsBeAdded(): CheckStatus
- CanJwelleryBeAdded(): CheckStatus
+ toString(): String
+ equals() : InterfaceCharacter
- getGearsStrength(): Strength

<<enumeration>>
CheckStatus

CAN_BE_ADDED: CheckStatus

- CheckStatus()

0..1

Strength

+ attackStrength: int
+ defenceStrength: int

+ getAttackStrength: int
+ setAttackStrength: int
+ getDefenceStrength: int
+ setDefenceStrength: int
+ toString()

0..*

<<interface>>
IGear

+ retrieveGearStrength(Gear): Strength

0..1

0..1

0..*

GearDescription

+ gearFullName: String
+ gearAdjectiveName: String

+ getGearFullName(): String
+ getGearAdjectiveNameName(): Strir

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AbstractGear

gearDescription: Description
gearStrength: Strength
WornOutInHowManyRounds: int

+ retrieveGearStrength(Gear): Strength
+ toString(): String
+ equals(): InterfaceGear

HeadGear

Extends

HandGear

Extends

FootwearGear

Extends

JwelleryGear

Extends

Equipping Characters Testing Plan

S.No	Description	Result	Expected
1	Verify AddCharacter Works Correctly without any gears		Character Name: Alice Attack Strength: 10 Defense Strength: 10 Hit Points: 10
2	Verify AddHeadGear works Correctly		Gear Name: Helmet of Heaven Attack Strength: 0 Defense Strength: 10
3	Verify AddFootwearGear works Correctly		Gear Name: Hoverboard of Hell Attack Strength: 10 Defense Strength: 0
4	Verify AddHandGear works Correctly		Gear Name: Ring of Goblin Attack Strength: 10 Defense Strength: 10
5	Verify NeckGear works Correctly		Gear Name: Ribbon of Love Attack Strength: 5 Defense Strength: 10
6	Verify DressCharacter works correctly		Character Name: Alice Wearing:- Head Gear: Helmet of Heaven Footwear: Hoverboard of Hell Hand Gear: Ring of Goblin Neck Gear: Ribbon of Love
7	Verify DressCharacter works correctly after adding multiple items		Character Name: Alice Wearing:- Head Gear: Helmet of Heaven Footwear: Hoverboard of Hell and Peace Hand Gear: Ring of Goblin and Shock Neck Gear: Ribbon of Love and Invisibility
8	Verify DressCharacter works correctly after		Character Name: Alice Wearing Head Gear: Helmet of Heaven

			Footwear: Hoverboard of Hell and Peace Hand Gear: Ring of Goblin and Shock Neck Gear: Ribbon of Love and Invisibility Discarded List: Head Gear: Cap of Peace
9	Verify DressCharacter works correctly with randomly selecting same item 20 times		Character Name: Alice, Wearing Head Gear: Helmet of Heaven Discarded List: Head Gear: Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven, Helmet of Heaven
10	Verify printCharacterDetails		Character Name: Alice Wearing:- Head Gear: Helmet of Heaven Footwear: Hoverboard of Hell Hand Gear: Ring of Goblin Neck Gear: Ribbon of Love Attack Strength: 35 Defense Strength: 40
11	Verify predictWinner, when there is a winner		Winner is Alice, lasted 5 rounds
12	Verify predictWinner, when there is a tie		It's a tie
13	Verify Rematch, if user entered yes		New game with same players and new set of gears
14	Verify Rematch, if user entered no		No rematch

15	Verify AddCharacter Works Correctly when character initial attack and defense strength is 0, without any gears		Character Name: Alice Attack Strength: 0 Defense Strength: 0 Hit Points: 10
16	Verify AddHeadGear works Correctly of cursed Item		Gear Name: Helmet of Blaze Attack Strength: 0 Defense Strength: - 10
17	Verify printCharacterDetails, character adding one cursed item.		Character Name: Alice Wearing:- Head Gear: Helmet of Blaze Attack Strength: 0 Defense Strength: -10
18	Verify printCharacterDetails, character adding multiple items including cursed one.		Character Name: Alice Wearing:- Head Gear: Helmet of Blaze Footwear: Hoverboard of Hell Hand Gear: Ring of Goblin Neck Gear: Ribbon of Love Attack Strength: 25 Defense Strength: 10
19	Verify predictWinner, when characters wearing all defense gears		It's a tie
20	Verify predictWinner, when characters wearing all attack gears		Winner is Alice, lasted 2 rounds
21	Verify preditWinner, when character wearing all cursed items		Winner is Bob, lasted 12 rounds
22	Verify preditWinner, when characters' gears worn out in same round.		It's a tie