Exercise 6

Before submit your code, you have to MERGE your codes (ArmorClass.java, Ex6Console.java, Interface.java) into Ex6Console.java.

Merging example

Before merge

1. ArmorClass.java

```java
class IronmanRepulsor {...}
...
```

2. Interface.java

```java
interface Repulsor {...}
...
```

3. Ex6Console.java

```java
public class Ex6Console {...}
```

After merge

```java
Ex6Console.java

class IronmanRepulsor {...}
interface Repulsor {...}
...
public class Ex6Console {...}
```

Card Game Simulator

- This exercise has skeleton code.
- You have to implement 6 classes
  - class IronmanRepulsor
  - class IronmanFireBlaster
  - class IronmanWhipFlash
  - class IronmanRepulsorFireBlaster
  - class IronmanRepulsorWhipFlash
  - class IronmanHulkBuster
- The program must follow the constraints below.

Program description

- You are going to implement a turn based mini card game.
- To win the game, you have to make your enemy health to 0.
- If your health becomes 0 before enemy, you lose.
You can choose one action: summon one armor, or make your armors deal enemy.

After each action, enemy damages your armors or if there is no armor in field, enemy damages yourself.

When printing each classes, you should print its armor type with it.

\[
\text{name[health]_ArmorType[type]} \\
\text{name[health]_ArmorType[type1][type2]}
\]

All codes are already implemented, except file `ArmorClasses.java`.

You have to implement 6 classes in `ArmorClasses.java`.

- All classes should inherit `class Ironman`
- Each classes should implement necessary interfaces

**Armor description**

- **Basic**
  - Basic armor have 50 health
  - Basic armor damages 5 to enemy
  - It is already implemented as `class Ironman`

- **Repulsor**
  - Repulsor armor have no bonus health
  - Repulsor armor damages 5 more to enemy

- **Fire Blaster**
  - Fire Blaster armor have no bonus health
  - Fire Blaster armor damages 15 more to enemy
  - Fire Blaster armor damages 5 to armor itself every time it deals.

- **Whip Flash**
  - Whip Flash armor have 30 less health
  - Whip Flash armor damages 3 more to enemy
  - Whip Flash armor heals 3 of armor itself every time it deals.

- **Hulk Buster**
  - Hulk Buster armor have 50 more health
  - Hulk Buster armor damages 2 less to enemy

- When **Repulsor** and **Whip Flash** are used together
  - Repulsor can damage 5 more than usual.(total 10 more damage)
  - Whip Flash no longer heals armor itself every time it deals.
  - Whip Flash no longer have 30 less health.

- When **Repulsor** and **Fire Blaster** are used together
  - Repulsor can damage 10 more than usual.(total 15 more damage)
  - Fire Blaster damages 10 to armor itself every time it deals.

**Interface description**

- One of skeleton code contains interface and basic classes.
interface Repulsor {
    int repulsorDamage(); // have initial health +0 | deals additional 5 damage
}

interface FireBlaster {
    int fireBlasterDamage(); // have initial health +0 | deals additional 15 damage, but damaged 5 health
}

interface WhipFlash {
    int whipFlashDamage(); // have initial health -30 | deals additional 3 damage, and heals 3 health
}

interface HulkBuster {
    int hulkBusterDamage(); // have initial health +50 | deals additional -2 damage
}

class Ironman {
    protected String name;
    protected int health;

    public Ironman(String name) {
        this.name = name;
        setHealth();
    }

    public String getName() {
        return name;
    }

    public int deal() {
        return 5;
    }

    protected void setHealth() {
        this.health = 50;
    }

    public void damaged(int damage) {
        this.health -= damage;
    }

    public boolean isDead() {
        return health <= 0;
    }

    @Override
    public String toString() {
        return name + "[" + health + "]";
    }
}

* You have to implement ArmorClasses.java file using extends and implements