

ASSIGNMENT 8 – OOP IN JAVA**REQUIRED FILES**

```
./App.java
./ArchMage.java
./Berserker.java
./Fighter.java
./GameCharacter.java
./Mage.java
./Necromancer.java
./Team.java
```

PREAMBLE

This assignment is identical to Assignment 7, except that we are going to implement it in Java.

You are given all the files needed to complete the assignment, most of which are already complete. Only the `Berserker.java`, `ArchMage.java` and `Necromancer.java` are incomplete. You should not edit any other file.

Please read the Assignment 7 writeup for the problem description and look through all the files to see how the system works. Then, compile and execute the program to play the game:

```
javac *.java
java App
```

You should be able to play the game as per normal. However, getting a `Berserker`, `ArchMage` or `Necromancer` to act will cause an exception to be thrown since they haven't been implemented at this stage.

PART 1: BERSERKER [33 MARKS]

We are going to complete the `Berserker` class. The only thing that's different between `Berserker` and `Fighter` is that the `Berserker` would enter berserk mode and deal damage of twice its strength when it has less than (or equal to) half HP.

Complete the implementation of the overriding method `damage()`. Then, compile and execute the program to play the game:

```
javac *.java
java App
```

PART 2: ARCHMAGE [33 MARKS]

We are going to complete the `ArchMage`. The only difference between an `ArchMage` and a `Mage` is that if it doesn't meditate, it would cast KABOOM every enemy if it is the only living member of its team.

Complete the implementation of the overriding method `cast(Team myTeam, Team enemyTeam)`. Then, compile and execute the program to play the game:

```
javac *.java
java App
```

PART 3: NECROMANCER [34 MARKS]

We are going to complete the Necromancer class. The only difference between a Necromancer and a Mage is that if it doesn't meditate, if there is any teammate who's dead, the Necromancer would revive one of them (select a random teammate if there are multiple).

Complete the implementation of the overriding method `cast(Team myTeam, Team enemyTeam)`. Then, compile and execute the program to play the game:

```
javac *.java  
java App
```

SUBMISSION

Simply paste your code into Coursemology and run the test cases.