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1. Source Code
   a) Class Character

```java
package ExceptionHandling;

public abstract class Character {

    private int defense;
    private int attack;
    private int HP = 0;

    public int getDefense() {
        return defense;
    }

    public int getAttack() {
        return attack;
    }

    public int getHP() {
        return HP;
    }

    public void setDefense(int defense) {
        this.defense = defense;
    }

    public void setAttack(int attack) {
        this.attack = attack;
    }

    public void setHP(int HP) {
        this.HP = HP;
    }

    public abstract boolean attack();

    public void receiveDamage(int damage) {
        if (damage > defense) {
            int sisa = damage - defense;
            setHP(getHP() - sisa);
        }
    }

    public void info() {
        System.out.println("------------ STATUS ------------");
        System.out.println("Role\t\t: " +getClass().getSimpleName());
        System.out.println("HP\t\t\t: " +getHP());
        System.out.println("Attack\t\t: " +getAttack());
        System.out.println("Defense\t\t: " +getDefense());
    }
```

```
}
```

b) Class Titan

```java
package ExceptionHandling;

public class Titan extends Character {

    public Titan() {
        setHP(200);
        setAttack(45);
    }

    @Override
    public boolean attack() {
        int hit = (int) (Math.random() * 100);
        if (hit <= 40) {
            return true;
        } else {
            return false;
        }
    }

    @Override
    public void info() {
        super.info();
    }

}
```

c) Class Magician

```java
package ExceptionHandling;

public class Magician extends Character {

    public Magician() {
        setHP(100);
        setAttack(60);
        setDefense(10);
    }

    @Override
    public boolean attack() {
        int hit = (int) (Math.random() * 100);
        if (hit <= 35) {
            return true;
        } else {
            return false;
        }
    }

    @Override
    public void info() {
        super.info();
    }
```

```
}
```

d) Class Healer

```java
package ExceptionHandling;

public class Healer extends Character {

    public Healer() {
        setHP(70);
        setAttack(10);
        setDefense(10);
    }

    public void heal() {
        setHP(getHP() + 25);
    }

    @Override
    public boolean attack() {
        int hit = (int) (Math.random() * 100);
        if (hit <= 85) {
            return true;
        } else {
            return false;
        }
    }

    @Override
    public void info() {
        super.info();
    }

}
```

e) Class Warrior

```java
package ExceptionHandling;

public class Warrior extends Character {

    public Warrior() {
        setHP(80);
        setAttack(25);
        setDefense(30);
    }

    @Override
    public boolean attack() {
        int hit = (int) (Math.random() * 100);
        if (hit <= 60) {
            return true;
        } else {
            return false;
        }
    }
```

```java
    @Override
    public void info() {
        super.info();
    }

}
```

f) Class Main

```java
package ExceptionHandling;

import java.util.Scanner;

public class Main {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        int role = 0;
        int count = 0;

        System.out.println("Selamat datang di game Defend FILKOM !");
        System.out.print("Silahkan masukkan nama player : ");
        String nama = input.nextLine();

        while (true) {
            System.out.println("Silahkan pilih karakter yang anda inginkan
:");
            System.out.println("1. Magician");
            System.out.println("2. Healer");
            System.out.println("3. Warrior");
            try {
                String pilihan = input.nextLine();
                role = Integer.parseInt(pilihan);
            }
            catch (Exception e) {
                System.out.println("Tolong masukkan angka !");
            }

            if (role > 0 && role < 4) {
                break;
            } else {
                System.out.println("Tolong pilih karakter yang tersedia !");
            }
        }

        Character player = null;
        Titan musuh = new Titan();
        System.out.printf("Selamat datang, %s ! %n", nama);
        switch (role) {
            case 1 -> {
                player = new Magician();
                player.info();
            }
            case 2 -> {
                player = new Healer();
                player.info();
            }
```

```java
            case 3 -> {
                player = new Warrior();
                player.info();
            }
        }

        while (player.getHP() > 0 && musuh.getHP() > 0) {
            count++;
            System.out.printf("============ TURN %d ============ %n", count);
            if (musuh.attack()) {
                player.receiveDamage(musuh.getAttack());
            }
            if (player.attack()) {
                musuh.receiveDamage(player.getAttack());
            }
            if (count % 2 == 0 && player instanceof Healer) {
                System.out.println("Menggunakan skill Heal.");
                ((Healer) player).heal();
            }
            if (musuh.getHP() <= 0) {
                musuh.setHP(0);
            }
            if (player.getHP() <= 0) {
                player.setHP(0);
            }
            System.out.println("Enemy's HP\t: " +musuh.getHP());
            System.out.println(nama+ "'s HP\t: " +player.getHP());
        }
        System.out.println("==================================");

        if (musuh.getHP() == 0) {
            System.out.println(nama + " menang");
        } else if (player.getHP() == 0) {
            System.out.println("Musuh menang");
        }
        System.out.println();

        System.out.println("============ PLAYER ============");
        player.info();
        System.out.println();
        System.out.println("============ MUSUH ============");
        musuh.info();
    }

}
```

2. Screenshot Output
    a) Screenshot 1

    b) Screenshot 2

```
============ TURN 3 ============
Enemy's HP  : 170
Taufik's HP : 60
============ TURN 4 ============
Menggunakan skill Heal.
Enemy's HP  : 160
Taufik's HP : 85
============ TURN 5 ============
Enemy's HP  : 150
Taufik's HP : 50
============ TURN 6 ============
Menggunakan skill Heal.
Enemy's HP  : 140
Taufik's HP : 40
============ TURN 7 ============
Enemy's HP  : 130
Taufik's HP : 40
============ TURN 8 ============
Menggunakan skill Heal.
Enemy's HP  : 120
Taufik's HP : 30
============ TURN 9 ============
Enemy's HP  : 110
Taufik's HP : 0
=================================
Musuh menang
```

```
============ PLAYER ============
------------ STATUS ------------
Role       : Healer
HP         : 0
Attack     : 10
Defense    : 10


============ MUSUH ============
------------ STATUS ------------
Role       : Titan
HP         : 110
Attack     : 45
Defense    : 0
```