**Java Programming Final**

Create a small imitation of Pokémon game.

Requirements:

Say that today you want to make a Pokémon, first think, what qualities does it need to have? If we think about it, we have: name, skill, fighting power, etc.

Pokemon.java defines a Pokémon with the previous characteristics, that is designs a Pokémon class. When designing we can use a few helper methods, such as to set the name of the Pokémon (setName), ask the Pokémon name (getName), etc. We’ll be using Gyarados and Dragonite as examples.

Next, say we will create a super Pokémon and this super Pokémon’s strength is that it can have an extra ability. Thinking about it, this super Pokémon is also a Pokémon, any traits a normal Pokémon has, the super Pokémon will also have and it will have an extra ability/ trait itself. Won’t this super Pokémon also follow all of the normal Pokémon’s design? Is it not that we only have to add the new traits and methods?

SuperPokemon.java will inherit normal Pokémon’s programming design, and it will add super Pokémon’s “special ability”, that is it will **inherit** from the Pokémon class.

Once the game starts, it will immediately create a Pokémon, it will create an instance. For example:

Pokemon hjg = new Pokemon();

This means that it will grab the Pokémon design class and create a new Pokémon instance, and it will give it an id of **hjg**

To set a name: hjg.setName(“Gyarados”)

To set the power level: hjg.setPower((short)20);

As for the superpokemon:

SuperPokemon bb1 = new SuperPokemon();

This means that it will grab the SuperPokemon design class and create a new Pokémon instance, and it will give it an id of **bb1**

To set a name: bb1.setName(“Dragonite”)

To set the power level: hjg.setPower((short)180);

To set the extra ability: bb1.setFire(“Spit Fire”);

Next, if we want to know the name of bb1, we use bb1.getName(); same goes for hjg’s name, we would use hjg.getName(). To get the skills, power level we use the same method to get them.

And so, say **lib** is a machine, this machine has an ability that can judge a Pokémon’s fighting level, so in its class design, add a method called **highlow.** Same thing as before, when we want to use it, we have to create an instance, we’ll call it **g**, then we can call the method of g : g.highlow(a, b); This way we can call highlow and decide the ability level between hjg vs bb1.

Please write a Java program according the above specs, create a Pokémon, including name, ability, special ability, power level then creates a super Pokémon, the name can be chosen by you and simulate a battle. You can use the abilities and the fighting power to choose a winner.

注意事項：

1. 程式所有執行結果完全正確。（75%）

2. 程式架構清楚易讀。（10%）

3. 程式加上註解，說明清楚。（10%）

4. 程式請以 s+學號+1050829.java 命名。（5%）

5. 評分標準依各項功能完成度給分。

6. 可以請參考老師給的課程範例