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/*Joud Talal Alharbi 2110207
Shahd Alshamrani 2113082
Noura Almutairi 20113615
Raghad Hussain 2112736
Raghad Basfar 2024092
Joud Hattan 2010849
*/
package PokemonGame;

import java.io.File;
import java.util.Scanner;

public class PokemonGame {

    public static void main(String[] args) throws Exception {
        PokemonLL pokemon= new PokemonLL();
        PokemonBST BST= new PokemonBST();

        File file= new File ("Pokemons.txt");
        Scanner in= new Scanner(file);

        while(in.hasNext()){
            Pokemon p= new Pokemon();
            p.SetId(in.nextInt());
            p.SetName(in.next());
            p.SetType(in.next());
            p.SetAttack(in.nextInt());
            p.SetDefence(in.nextInt());
            p.SetTotal(in.nextInt());
            pokemon.addNode(p);
            BST.insert(p);
        }

        System.out.println("*****
        *****" );
        System.out.println("****
        *****" );
        System.out.println("*****
        *****" );

        //pokemon information
        System.out.println("Pokemons Information...");
        pokemon.printList();
        System.out.println("");

        //Total number of pokemons
        System.out.println("Total number of pokemons = "+pokemon.NumOfPokemons());

        //pokemon of each type
        System.out.println(pokemon.NumOfPokemonType());

        //strongest
        System.out.println("The strongest pokemon is :"+pokemon.StrongestPokemon());

        //avg

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System.out.println("The average of all pokemons power is :"+pokemon.AvgPower());
    System.out.println("");

    //Pokemons from weakest to strongest..
    System.out.println("Pokemons from weakest to strongest..");
    //bst tree
    BST.preorder();

    System.out.println("*****");

    //start
    Scanner input=new Scanner(System.in);
    System.out.println(" We want to make a competition between 2 players \n Each player
    should choose 3 pokemons to fight with");
    //names
    System.out.println("Enter the name of the first player: ");
    String name1= input.nextLine();
    System.out.println("Enter the name of the Secound player: ");
    String name2= input.nextLine();

    //choice
    System.out.println("Now, each player should choose 3 pokemons\n your first choice
    will play the first round and so on..");

    //1st player
    System.out.println("Start with "+name1);
    //create queue to store pokemons
    PokemonQueue queue=new PokemonQueue(3);
    int count=1;
    while(count<=3){
        System.out.println("Enter the id of pokemon "+count);
        int id= input.nextInt();
        //method search return the pokemon using its id
        if(pokemon.search(id)!=null){
            // enqueue will store the pokemons of each player in the queue
            queue.enqueue(pokemon.search(id));
            count++;
        }
        else{//if the id is not found
            System.out.println("Wrong pokemon id!!");
        }
    }
    System.out.println("Do you want to reverse your pokemons (y/n)?");
    char choice=input.next().charAt(0);
    if (choice=='y' || choice=='Y'){
        //stack reverse
        PokemonStack stack=new PokemonStack(queue.size());
        stack.reverse(queue);
    }

    //2nd player
    System.out.println("Now, "+name2+" turn");
    //create queue to store pokemons
    PokemonQueue queue2=new PokemonQueue(3);
    count=1;
    while(count<=3){
        System.out.println("Enter the id of pokemon "+count);

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        int id= input.nextInt();
        if(pokemon.search(id)!=null){
// enqueue will store the pokemons of each player in the queue
queue2.enqueue(pokemon.search(id));
        count++;
    }
    else{
        System.out.println("Wrong pokemon id!!");
    }
}
System.out.println("Do you want to reverse your pokemons (y/n)?");
choice=input.next().charAt(0);
if (choice=='y' || choice=='Y'){
//stack reverse
PokemonStack stack2=new PokemonStack(queue2.size());
stack2.reverse(queue2);
}

//print each player army
System.out.println("\n"+name1+" Army...");
//print queue using void method PrintQueue();
queue.PrintQueue();

    System.out.println("\n"+name2+" Army...");
    //print queue using void method PrintQueue();
    queue2.PrintQueue();

    /*
    start
        PokémonA wins the round over PokémonB if: PokémonA attack power > PokémonB
defense power AND
        PokémonA defense power > PokémonB attack power, otherwise it is a tie.
        The player who wins the most rounds wins the game. In case they have the same
number of wins it will be a tie.
    */

    System.out.println("\n\n"+"Let The Battle Starts...");
    count=1;
    int first=0; //wins for first player
    int second=0; //wins for second player

    while(count<=3){ //count =3 rounds
        System.out.println("Round "+count);
        if(queue.peek().GetAttack()>queue2.peek().GetDefence()&&
queue.peek().GetDefence()>queue2.peek().GetAttack()){// the first win
            System.out.println(queue.peek().GetName()+" wins!!");
            first++;}
        else if(queue2.peek().GetAttack()>queue.peek().GetDefence()&&
queue2.peek().GetDefence()>queue.peek().GetAttack()){// the second win
            System.out.println(queue2.peek().GetName()+" wins!!");

            second++;}
        else //tie
            System.out.println("it is a Tie..");
        queue.dequeue(); //to change the peek
        queue2.dequeue(); // to change the peek
        count++; //next round
    }
}

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System.out.println("The Final Result of Battle...");
if (first>secound)
    System.out.println(name1+" Wins...");
else if (first<secound)
    System.out.println(name2+" Wins...");
else
    System.out.println("It's a tie...");

    System.out.println("\n Hope you enjoy our Pokemon game:)\n" +
"See you in next games..");

}

}
```