Java SE Task, Week 5

Classes and Objects. Encapsulation, Getters and Setters.

Task 1

Create a class called **Tourist**, which has parameters and methods:

- String name;
- double incomeMoney;

Constructors (default and parameterized)
Getters and Setters
+ String toString(); // This method returns string value of a tourist

Create a class called **ResortPlace**, which has parameters and methods:

- String name
- String city;
- Tourist tourists[] = new Tourist[1000]; // Do not create getters and setters for this field;
- int touristCount = 0; // Do not create getters and setters for this field;

Constructors (default and parameterized)
Getters and Setters (**except tourists array and touristCount parameter**)

+ void addTourist(Tourist tourist); // This method adds tourist into array and increments **touristCount** parameter into 1
+ double getTotalIncome(); // This method returns total amount of income from resort place
+ int getTotalTourists(); // This method returns total amount of tourists in resort place
+ String toString(); // This method returns a String value of resort place parameters and it's tourists in following format

Example:

> Resort Place: Shymbulak, City: Almaty
>
> _____
> Tourists:
> Ilyas 200 USD
> Arman 300 USD
> Ermek 500 USD
>
> _____
> Total Income: 1000 USD

Create a class, called **Country**, which has parameters and methods:

- String name;
- ResortPlace resortPlaces[] = new ResortPlace[1000]; // Do not create getters and setters for this field;
- int resortCount = 0; // Do not create getters and setters for this field;

Constructors (default and parameterized)
Getters and Setters (**except resort places array and resortCount parameter**)
+ void addResort(Resort resort); // This method adds resort into resortPlaces array and increments resortCount value into 1
+ void printAllResorts(); // This method prints a list of all resorts inside of our country.
+ double getTotalIncome(); // This method returns total amount of incomes of all resorts, inside of our country.

In main class, create one object of a **Country** class. Add at least 5 objects of resorts. Each resort must have at least 5 tourists.

Print:

     Name of all resort places in our country
     Total amount of tourists in our country
     Total sum of incomes in our country

     Resort data, which has a maximum value of total income
     The richest tourist in the country

Task 2

Create a class called **Continent**, with parameters and methods:
- String name;
- Country countries[];

Default and Parameterized constructors
Getters and Setters

+ double getTotalIncomeOfAllResorts(); // this method returns total income of all resorts in all countries
+ Country getTheMostProfitableCountry(); // this method returns the most profitable country object in our continent, it means the country which has maximum value of total income from resorts

In main class, create at least 3 countries with completely filled resorts and tourists
Create an object of a continent and add all 3 countries into it
Print the total income of all countries in our continent
Print the most profitable country data
Print the most profitable resort data in the most profitable country