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## Countries and provinces (1)

P90532\_en

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UN wants to store information about the organization of its member countries and the provinces that these contain, attached with their GDP (gross domestic product)

The information about a determined province is stored in the following struct:

```
struct Province {  
    string name;  
    string capital ;  
    int population ;  
    int area ;  
    double gdp;  
};
```

The information about a determined country is stored in the following struct:

```
struct Country {  
    string name;  
    string capital ;  
    vector <Province> provs;  
};
```

The information about all the countries is stored in a vector of countries:

```
typedef vector<Country> Countries;
```

Using the previous definitions, implement the function

```
double gdp(const Countries& p, char c, double d);
```

that returns the sum of the gross domestic products of all the provinces with density strictly greater than  $d$  of all the countries in  $p$  that starts with the letter  $c$ .

### Observation

You only need to submit the required classes; your main program will be ignored. Strictly obey the type definitions of the statement.

### Problem information

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