**CS324: Advanced Programming in Java**

**Homework No. 6**

**Due on Friday 22nd October.**

Refer to your HW5 where you manipulated the languages database, and created another table of **countryLanguageUsage**.

Now your task is to implement a TCP server, which access the newly created **countryLanguageUsage** table and serves the queries of a client asking for language usage details of a particular country.

E.g. If the client request for usage details of Aruba, the server sends following information:

Country : Aruba, Official language usage: 5.3%, Non-official language usage: 94.5%

**For your reference HW5 text is given below:**

Consider the world database shipped along with MySQL installation, inside this database a table **countrylanguage** is defined with following schema:

**+-------------+---------------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+-------------+---------------+------+-----+---------+-------+**

**| CountryCode | char(3) | NO | PRI | | |**

**| Language | char(30) | NO | PRI | | |**

**| IsOfficial | enum('T','F') | NO | | F | |**

**| Percentage | float(4,1) | NO | | 0.0 | |**

**+-------------+---------------+------+-----+---------+-------+**

Please note that the primary key is **(CountryCode, Language),** as multiple languages are spoken in a country.

Looking at some of the entries in this table:

**+-------------+---------------------------+------------+------------+**

**| CountryCode | Language | IsOfficial | Percentage |**

**+-------------+---------------------------+------------+------------+**

**| ABW | Dutch | T | 5.3 |**

**| ABW | English | F | 9.5 |**

**| ABW | Papiamento | F | 76.7 |**

**| ABW | Spanish | F | 7.4 |**

**| AFG | Balochi | F | 0.9 |**

**| AFG | Dari | T | 32.1 |**

**| AFG | Pashto | T | 52.4 |**

**| AFG | Turkmenian | F | 1.9 |**

**| AFG | Uzbek | F | 8.8 |**

**+-------------+---------------------------+------------+------------+**

It turns out that in ABW (Aruba) official language usage is 5.3%, and non-official languages usage is 94.5%. Similarly in AFG (Afghanistan) the official languages usages is 84.5%, and non-official languages usage 10.7%.

Your task is to create a new table, let’s call it **countryLanguageUsage**

Given the above short example, your table should look like:

**+-----------------+------------------------+---------------------+**

**| Country | Official Usage(%) | Non-official Usage(%)**

**+-----------------+------------------------+---------------------+**

**| Aruba | 5.3 | 94.5 |**

**| Afghanistan | 84.5 | 10.7 |**

**+-----------------+------------------------+---------------------+**

Note that you need to create this table in your Java program, and later populate the entries from the same program. Your program will process all the entries in **countrylanguage** table. Also, you need to look into **country** table to identify country names from their code.