**953212 DB SYS & DB SYS DESIGN 68/1**

**(Lab1) Dealing with traditional file with Java (5 points)**

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In this lab, you are going to apply your programming and problem-solving skills to generate small report from one given file, namely 2024 QS World University Ranking 1.1 (For qs.com).csv

Information about data are describes as follows:

**Part 1) Data Set Information and Attribute Information:**

1. (1 point) What are the meta data for the given data? please list all

2024 RANK

2023 RANK

Institution Name

Country Code

Country

SIZE

FOCUS

RES.

AGE

STATUS

Academic Reputation Score

Academic Reputation Rank

Employer Reputation Score

Employer Reputation Rank

Faculty Student Score

Faculty Student Rank

Citations per Faculty Score

Citations per Faculty Rank

International Faculty Score

International Faculty Rank

International Students Score

International Students Rank

International Research Network Score

International Research Network Rank

Employment Outcomes Score

Employment Outcomes Rank

Sustainability Score

Sustainability Rank

Overall SCORE

1. (1 point) List all the data type of each attribute.

|  |  |
| --- | --- |
| 2024 RANK | Integer |
| 2023 RANK | Integer |
| Institution Name | String |
| Country Code | String |
| Country | String |
| SIZE | String |
| FOCUS | String |
| RES. | String |
| AGE | Integer |
| STATUS | String |
| Academic Reputation Score | Float |
| Academic Reputation Rank | Integer |
| Employer Reputation Score | Float |
| Employer Reputation Rank | Integer |
| Faculty Student Score | Float |
| Faculty Student Rank | Integer |
| Citations per Faculty Score | Float |
| Citations per Faculty Rank | Integer |
| International Faculty Score | Float |
| International Faculty Rank | Integer |
| International Students Score | Float |
| International Students Rank | Integer |
| International Research Network Score | Float |
| International Research Network Rank | Integer |
| Employment Outcomes Score | Float |
| Employment Outcomes Rank | Integer |
| Sustainability Score | Float |
| Sustainability Rank | Integer |
| Overall SCORE | Float |

**Part 2) Basic descriptive with Java**

1. (1 point) Write a Java program to open, read, and close the given CSV file.
2. (1 point) Insert Chiang Mai University to the record in year 2024 and write to file as QS\_World University Ranking 2024.csv

More info can be found here:

https://www.topuniversities.com/universities/chiang-mai-university

1. **[Extra credit ]** What problem have you found when you are dealing with the tradition database files? Explain in detail? (e.g., domain integrity, NULL values, etc.) (2 points)

**Submission**

Submit your Java source code Main.java, UniData.java to Mango under Lab1.

You can write Part 1/Part 3 answer in your Main.java using comment.

Late submission -2