|  |  |
| --- | --- |
| **Practicum Case** |  |
| COMP6140 | COMP6140001 | COMP6140049  Data Mining |
| **Computer Science** | **O191-COMP6140-NP01-01** |
| ***Valid on*** *Even Semester Year 2019/2020* | **Revision 00** |

**Learning Outcome**

* LO1 – explain concept of data and data preprocessing

**Topic**

* Session 01 – Introduction to R

## Sub Topics

* Variable
* Vector and Matrix
* Selection
* Repetition
* Functions
* Importing Data

## Soal

*Case*

**Bluejack Nusantara University**

You are a newly hired data engineer in Bluejack Nusantara University. You are assigned to calculate the **scoring** of a certain student, whose data is stored in the **Score.csv** document. You are also given the scoring **weight** of each course components which is stored in the **ScoreWeight.csv**document.

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **Assignment** | **Mid Exam** | **Final Exam** |
| COMP6047 | 70 | 100 | 90 |
| COMP6048 | 80 | 75 | 80 |
| CPEN6098 | 100 | 90 | 85 |
| ISYS6169 | 90 | 80 | 85 |
| COMP6176 | 86 | 69 | 73 |
| COMP7066 | 69 | 76 | 79 |
| COMP7084 | 86 | 74 | 88 |
| COMP7116 | 63 | 60 | 65 |
| COMP8108 | 90 | 87 | 83 |

**Figure 1. Preview of Score.csv**

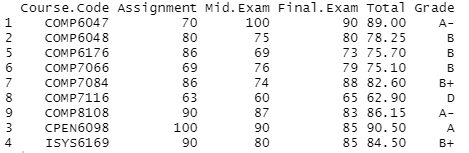
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course Code** | **Assignment** | **Mid Exam** | **Final Exam** | **Total** |
| COMP6047 | 0.2 | 0.3 | 0.5 | 1 |
| COMP6048 | 0.15 | 0.35 | 0.5 | 1 |
| COMP6099 | 0.3 | 0.3 | 0.4 | 1 |
| COMP6119 | 0.3 | 0.3 | 0.4 | 1 |
| COMP6120 | 0.3 | 0.3 | 0.4 | 1 |
| COMP6122 | 0.25 | 0.35 | 0.4 | 1 |
| COMP6125 | 0.3 | 0.3 | 0.4 | 1 |
| COMP6140 | 0.3 | 0.3 | 0.4 | 1 |
| COMP6144 | 0.25 | 0.35 | 0.4 | 1 |
| COMP6153 | 0.25 | 0.35 | 0.4 | 1 |
| COMP6175 | 0.3 | 0.3 | 0.4 | 1 |
| COMP6176 | 0.3 | 0.3 | 0.4 | 1 |
| COMP6178 | 0.3 | 0.3 | 0.4 | 1 |
| COMP6200 | 0.2 | 0.3 | 0.5 | 1 |
| COMP7066 | 0.3 | 0.3 | 0.4 | 1 |
| COMP7084 | 0.25 | 0.35 | 0.4 | 1 |
| COMP7116 | 0.3 | 0.3 | 0.4 | 1 |
| COMP7117 | 0.3 | 0.3 | 0.4 | 1 |
| COMP7126 | 0.25 | 0.35 | 0.4 | 1 |
| COMP8108 | 0.25 | 0.35 | 0.4 | 1 |
| CPEN6098 | 0.25 | 0.35 | 0.4 | 1 |
| ISYS6123 | 0.3 | 0.3 | 0.4 | 1 |
| ISYS6169 | 0.25 | 0.35 | 0.4 | 1 |
| ISYS6200 | 0.25 | 0.35 | 0.4 | 1 |
| ISYS6211 | 0.25 | 0.35 | 0.4 | 1 |

**Figure 2. Preview of ScoreWeight.csv**

Calculate the **total score** of each course and **display the grade** of each subject. Make sure that the data is **sorted** based on the ***Course Code***. The grades are **calculated** according to the table below:

|  |  |
| --- | --- |
| **Grade** | **Total** |
| A | 90 – 100 |
| A- | 85 – 89 |
| B+ | 80 – 84 |
| B | 75 – 79 |
| B- | 70 – 74 |
| C | 65 – 69 |
| D | 50 – 64 |
| E | 0 – 49 |

**Save** the **result** into a **CSV document** and name it **Result.csv**. **Remove** its **row numbers**.



**Figure 3. Results in R**



**Figure 4. Preview of Result.csv**