**Questionnaire:**

1. Basic Information
   1. Field of study:
   2. Number of semester:
   3. Age:

|  |  |  |
| --- | --- | --- |
| ***18-24*** | ***25-30*** | ***More than 30*** |

* 1. Gender:

|  |  |  |
| --- | --- | --- |
| ***M*** | ***F*** | ***Do not wish to answer*** |

* 1. How familiar are you with the following concepts?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  ***Unfamiliar*** | 2 | 3 | 4 | 5 | 6 | 7  ***Very Familiar*** |
| ***Correlation analysis*** |  |  |  |  |  |  |  |
| ***Data analysis*** |  |  |  |  |  |  |  |
| ***Data visualization*** |  |  |  |  |  |  |  |

1. Visualization
   1. How many attributes are available in this data set?

* 1. How many pairs of attributes are available in this data set?

* 1. a) What is the correlation value between **Attribute 1** and **Attribute 3** at **Timestamp T1**, or the probable range?

b) What is the correlation value between **Attribute 1** and **Attribute 5** at **Timestamp T401**, or the probable range?

c) What is the correlation value between **Attribute 6** and **Attribute 8** at **Timestamp T1501**, or the probable range?

* 1. a) Which pair of attributes has the biggest correlation at **Timestamp T451**?

b) Which pair of attributes has the biggest correlation at **Timestamp T1351**?

c) Which pair of attributes has the biggest correlation at **Timestamp T1151**?

* 1. a) Which pair of attributes has the smallest correlation at **Timestamp T1051**?

b) Which pair of attributes has the smallest correlation at **Timestamp T1151**?

c) Which pair of attributes has the smallest correlation at **Timestamp T1701**?

* 1. a) The following statement is true or false: “The correlation value between **Attribute 1** and **Attribute 5** remains the same at **Timestamp T1751** and at **Timestamp T1801**”?

|  |  |
| --- | --- |
| ***True*** | ***False*** |

b) The following statement is true or false: “The difference of correlation value between **Attribute 1** and **Attribute 3** at **Timestamp T51** and at **Timestamp T101** is smaller than 0.1”?

|  |  |
| --- | --- |
| ***True*** | ***False*** |

c) The following statement is true or false: “The difference of correlation value between **Attribute 3** and **Attribute 9** at **Timestamp T1351** and at **Timestamp T1401** is bigger than 0.2”?

|  |  |
| --- | --- |
| ***True*** | ***False*** |

* 1. a) Which pair(s) of attributes has/have a correlation value that is not smaller than **0.1** at **Timestamp T1251**?

b) Which pair(s) of attributes has/have a correlation value that is not smaller than **0.1** at **Timestamp T651**?

c) Which pair(s) of attributes has/have a correlation value that is not smaller than **0.1** at **Timestamp T501**?

* 1. a) Which pair(s) of attributes has/have a correlation value that is not bigger than **0.001** at **Timestamp T51**?

b) Which pair(s) of attributes has/have a correlation value that is not bigger than **0.001** at **Timestamp T951**?

c) Which pair(s) of attributes has/have a correlation value that is not bigger than **0.001** at **Timestamp T1301**?

1. Feedback
   1. As you are able to use all visualization methods during the research, which one of the method, in your opinion, is the most helpful method to fulfill the task?

And which of the method did you use the most?

Please rate for ***Heat map:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  ***Strongly Disagree*** | 2 | 3 | 4 | 5 | 6 | 7  ***Strongly Agree*** |
| ***Intuitive*** |  |  |  |  |  |  |  |
| ***Convenient*** |  |  |  |  |  |  |  |
| ***Interactive*** |  |  |  |  |  |  |  |
| ***Useful*** |  |  |  |  |  |  |  |
| ***Complicated*** |  |  |  |  |  |  |  |
| ***Efficient*** |  |  |  |  |  |  |  |
| ***Effective*** |  |  |  |  |  |  |  |

Please rate for ***Bar Graph:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  ***Strongly Disagree*** | 2 | 3 | 4 | 5 | 6 | 7  ***Strongly Agree*** |
| ***Intuitive*** |  |  |  |  |  |  |  |
| ***Convenient*** |  |  |  |  |  |  |  |
| ***Interactive*** |  |  |  |  |  |  |  |
| ***Useful*** |  |  |  |  |  |  |  |
| ***Complicated*** |  |  |  |  |  |  |  |
| ***Efficient*** |  |  |  |  |  |  |  |
| ***Effective*** |  |  |  |  |  |  |  |

Please rate for ***Force-Directed Graph:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  ***Strongly Disagree*** | 2 | 3 | 4 | 5 | 6 | 7  ***Strongly Agree*** |
| ***Intuitive*** |  |  |  |  |  |  |  |
| ***Convenient*** |  |  |  |  |  |  |  |
| ***Interactive*** |  |  |  |  |  |  |  |
| ***Useful*** |  |  |  |  |  |  |  |
| ***Complicated*** |  |  |  |  |  |  |  |
| ***Efficient*** |  |  |  |  |  |  |  |
| ***Effective*** |  |  |  |  |  |  |  |

Please rate for ***whole system:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  ***Strongly Disagree*** | 2 | 3 | 4 | 5 | 6 | 7  ***Strongly Agree*** |
| ***Intuitive*** |  |  |  |  |  |  |  |
| ***Convenient*** |  |  |  |  |  |  |  |
| ***Interactive*** |  |  |  |  |  |  |  |
| ***Useful*** |  |  |  |  |  |  |  |
| ***Complicated*** |  |  |  |  |  |  |  |
| ***Efficient*** |  |  |  |  |  |  |  |
| ***Effective*** |  |  |  |  |  |  |  |

* 1. In your opinion, what are the strengths of this visualization system?

* 1. In your opinion, what are the weaknesses of this visualization system?

* 1. Do you have any suggestions for improving this visualization system?