MEF UNIVERSITY

Department of Engineering

Programming Studio

STUDENT SURVEY ANALYSIS

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**Abstract**

In this project We developed a program which can analyse one or more student surveys and creating multiple charts from them. This paper contains explanation of reading a excel file, creating a graphic user interface by using JavaFX, making three different charts (Pie, Radar and Bar) and getting a specific from big data.

Also, it contains a few samples of graphic user interface and charts.

**Problem Definition**

In 21st century there is a whole bunch of data about everything. It is an advantage to have big data. But with raw data you cannot learn anything significant. People need to process on that big data to get a meaning from it. It is same with student surveys on a university. Surveys getting more and more. Universities need to use the big data most efficient way. It is nearly impossible to process on that kind of big data with human power. Big data need to analysed by computer programs.

**Solution**

**Developing a Computer Program**

It is the fastest way to analyse a data. Surveys may consist of different lectures by they are on the same order on a excel file. An excel file can be formed as array. And file can be stored in an array. With that a survey can be formed on virtual environment. And program should be used by everybody. That is point for creating a GUI(Graphic User Interface). The GUI has to be simple and useful. And to get charts first program need calculate values on survey. To do that develop different method for every chart but it not that long. Develop some main algorithms. With you can use the same algorithm on different charts. For example creating algorithm that calculates the average of a section should be written with true parameters to use for every section and every survey. With that different methods can created the most useful charts. The most important thing is program must be compatible for all surveys in long-term.

**Work**

**Java**

Java was very useful for a work like this, because a survey will has different sections, different subsection, instructor, year etc.. That means you will need many variables to store them. And Java is an Object-Oriented Programming Language. For many variables like this we made classes to create a hierarchy inside a survey. That made the excel files virtualization much more understandable.

**Reading a Excel File**

**Creation of the Main Chart Classes**

**Developing Algorithms**

We wrote our algorithms as much as compatible for every survey. To do that we looked more than one excel files and understand the general frame of them. After that we wrote the charts that we going to need before coding. On coding we wrote our variables clear for our group work. We developed an algorithm for average of a section, an algorithm for average of all section, an algorithm for the number scoring on a section etc.. With all algorithms we combined them in different methods for each chart.

**Creation of GUI (Graphic User Interface)**

**Results**

**Figure 1.** Information

**Figure 2.** Information

**Figure 3.** Information

**Figure 4.** Information

Samples

**Contribution of this project**

Informaiton

**References**

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