

# EasyA

## User Documentation

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- v1.0

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## 1. User Documentation Revision History

| Date     | Author | Description   |
|----------|--------|---|
| 2-4-2023 | kp     | Created the initial document.                                       |
| 2-4-2023 | kp     | Wrote program overview, installation, and file format requirements. |
| 2-5-2023 | kp     | Added both use cases.   |

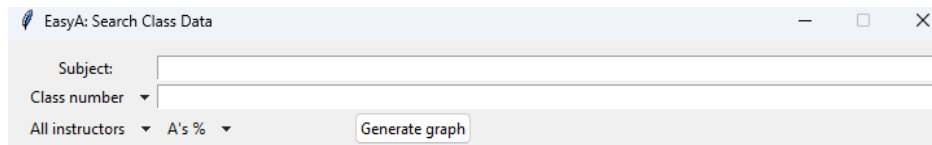
## 2. EasyA Program Overview

The EasyA program is a tool meant for students to look at grade data for both classes and instructors by subject, level, and course number. The data will be displayed in bar graphs showing percentage of A's or percentage of D's and F's. EasyA also allows you to filter by faculty vs regular instructors. The program allows you to look at all subjects included in the data set (not just natural sciences). This program is populated with grade data for the University of Oregon from The Daily Emerald and has course data up to 2016. The Emerald's data set is not complete as 67 percent of the 48,309 classes were redacted when they requested the data to avoid violating FERPA. This means that a course that may have been offered may not be in the data

included with EasyA. Additionally, the faculty data was obtained from the WayBack Machine archive of the UO website from 2014, so if a faculty member came to UO after this point they will only be labeled as an instructor.

### 3. Installation

- 3.1. Unzip the file once it is done downloading into a folder called “422-EasyA”.
- 3.2. Open the terminal on your computer (Powershell/CMD on Windows, Terminal on Mac).
- 3.3. Navigate to the directory where the file was downloaded to. In most cases, this can be done by typing “cd Downloads/422-EasyA” in the terminal and pressing enter unless the directory was changed. If the file is in a different directory type “cd <directory path>/422-EasyA”.
- 3.4. To replace the included data and faculty list, type and run “python3 addData.py.” The program will guide you through updating the data. See the next section for more info on file format requirements.
- 3.5. To run the program type “python3 EasyA.py” in the same directory and the program will start.



### 4. File Format Requirements

#### 4.1 Requirements to Add Data:

For the addition of new data, the data file must be in a .csv format. The first line must contain a header with the following format:

subject, course number, term, aprec, bprec, cprec, crn, dprec, fprec, last, first

The lines that follow must replace each keyword with the relevant data separated by commas. For example, “CIS,313,Fall 2015,30.6,43.5,19.4,11538,4.8,1.6,Lowd,Daniel” would be a valid entry. Additionally, the grades must be as a percent (46.4), not a decimal (.464).

#### 4.2 Requirements to Add New Faculty Members:

For the addition of new faculty members, the file must have the format “FirstName,LastName” for each line in the file. For example, “John,Smith” would be a valid entry. When adding data, the existing data will be completely overwritten.

## 5. Use Cases

### • 5.1 Viewing Graphs

- **5.1.1 Generating graph for a single class (See figure 5.1.1 for example)**
  - To generate a graph for a single class, type the subject code in the subject box, this must be entirely made up of letters and no spaces.
  - Then pick a class number by pressing the drop down below “Subject” and select “Class number.” Next type the class number and press generate graph. (see Figure 5.1.2 for graph)



Figure 5.1.1

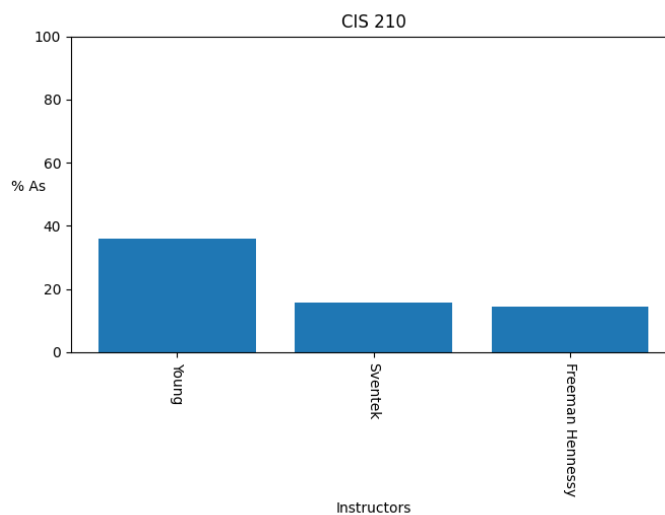


Figure 5.1.2

- **5.1.2 Generating graph by class level to see grade percentages by course number (See figure 5.1.3 for example)**
  - Type subject code in subject box. This must be entirely made up of letters and no spaces.
  - Then select the drop down below “Subject” and press “Class level (by class). Next, type in the class level (ex. 200) into the box next to the dropdown and press “Generate graph”.

Figure 5.1.3

○ **5.1.3 Generating graphs by class level to see grade percentages by instructor. (See figure 5.1.4 for example)**

- Type subject code in the subject box. This must be entirely made up of letters and no spaces.
- Then select the drop down below “Subject” and press “Class level (by instructor)”. Next, type in the class level (ex. 200) into the box next to the dropdown and press “Generate graph”.

Figure 5.1.4

○ **5.1.4 Filtering by instructors vs faculty. (see figure 5.1.5 for example)**

- Select the “All instructors” drop down option below the class level/class number box.
- Select if graphs should be generated with “All instructors” or “Faculty only.” Then generate graphs as described in sections 5.1.1, 5.1.2, or 5.1.3

Figure 5.1.5

○ **5.1.5 Filtering by percentage A's vs percentage D's/F's (see figure 5.1.6 for example)**

- Select the dropdown next to the faculty filter dropdown.
- Indicate percentage A's or percentage D's/F's

Subject: CIS

Class level (by instructor) ▼ 200

All instructors ▼

A's % ▼

- ✓ A's %
- F's %

Remove graph

Figure 5.1.6

- **5.1.6 Side by side graph viewing (see figure 5.1.7 for example)**
  - Select the options you want to display for one graph, then press “Generate graph”. To see a second graph with different options, simply select new options and press the button again.
  - Repeat this process to see up to five graphs at a time.
  - To remove a graph simply press “Remove graph” over the graph that is no longer needed. (highlighted in figure 5.1.7)

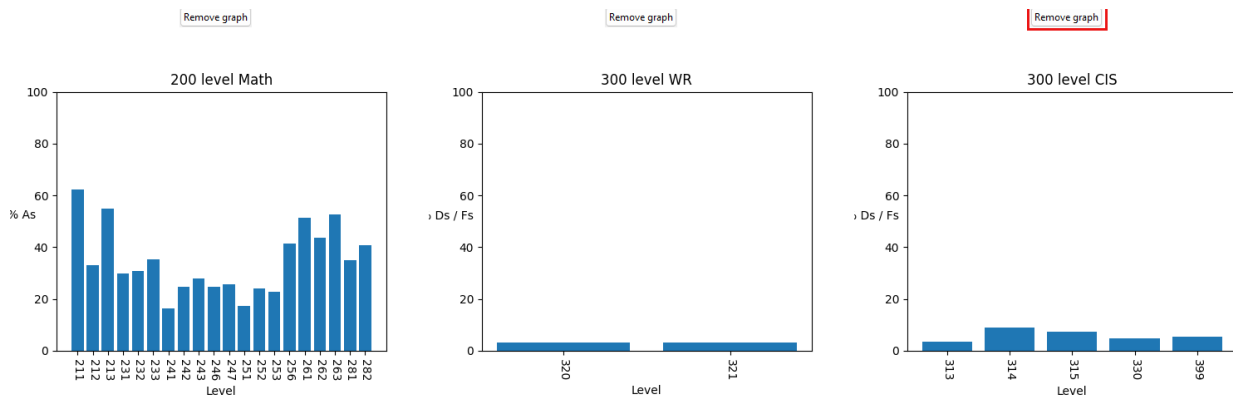


Figure 5.1.7

## ● 5.2 Addition of New Data by Administrator

- Add new data files to the directory where EasyA is installed.
- To add new data the addData.py file must be run. To run the file:
  - Open the terminal
  - Type “python3 addData.py” and press enter.
- Upon running the file you will see a message asking to enter the name of the new data file as a csv. The format the file must be in will also be displayed (for more info on format requirements, see section 4 of this document). Enter the name of a valid file, if the file is invalid you will be prompted until a valid file is entered.

```
This program requires input to be in a CSV file in the following format:
subject, course number, term, aprec, bprec, cprec, crn, dprec, fprec, last, first
The previous line must also be a header in the CSV file.
Please enter file name of new data (CSV file): new_data.csv|
```

- Next, you will be prompted to enter a filename for a new faculty list. The format required will be displayed (for more info on format requirements, see section 4 of this document). Enter the name of a valid file, if the file is invalid you will be prompted until a valid file is entered.

```
This program requires faculty file to be in a txt file in the following format: first,last
Separate each entry with a new line. For more information see user documentation
Please enter file name of new faculty file: newfaculty.txt
```

- You will then need to confirm this operation. All data that is in the current system will be overwritten. Type “Y” to confirm and complete, or “N” to cancel and exit. Upon replacing the files you will see a message saying “Finished. Press enter to exit.” Press enter and the system is ready to go with new data.

```
All data in current file and faculty file will be overwritten confirm this operation, Y to confirm, N to decline: Y
Updating files
Finished. Press enter to exit.|
```