UniFind

Group members:
 Jiwoo Lee
Cynthia Liu
Jennie Li
Zoe Ning
Jeehyun Yoon

Abstract

- University application process = highly inefficient and time consuming
- UniFind → More efficient and manageable system by providing algorithmic solutions in **sorting** Universities by categories
- Ex. ranking, program size, location, acceptance rate
- Using related datasets

Objective

- Canadian universities info-searching.

- A more comprehensive understanding on universities.

- Search keywords in the app to retrieve related information about it.

- The target audience for this project will be highschool students.

- Address their need of accessing information about universities.

Motivation

- So much information to draw conclusion

- Concluding result

- Memory bias -> detailed & clear fact

- List of university according to different categories sorting

- Inner look to universities

Prior Work

Comparison Product: OUAC website

Similarities:

- Help apply to an Ontario University
- Provide detailed introduction and application guide of all universities available

Advantages of Our Product:
- Use multiple CSV format datasets
- Search for info with names of Universities
- Find proper universities that satisfy users conditions
- Be targeted and relevant to all users

Input / Output & Proposed Solutions

- Ranking, target enrollment, admission average
- 3 years employment outlook
- Canadian/international tuition
- Undergraduate application statistics
- Revenues/expenditures of universities
- Employment income group based on fields

Our main goal would be **sorting/searching** based on input keywords from users

Ex. **Input**: Computer Science, Top 10

   Output: Sorted list of top 10 computer science programs in Canada

Algorithmic Challenges

Sort algorithms:

- **Quick sort: Deal with large data**
- **Insertion sort: Slower than other method, however, It shows better efficiency at the small data set.**

Search algorithm:

- **Linear search: When the size of the total data set is not larger than 1000, the linear search algorithm is much faster than the other one.**

Algorithmic Challenges

Other challenges:

- Accuracy and fastness:
  There will be over 1000 data in the application. The app should provide the exact information to users in a very short time.
- Collision:
  The collisions between methods or algorithms could have happened. If this problem occurs while the customer is using the app, it causes inconvenience and loss of the application's reputation. Therefore, reducing collision is the biggest challenge.

Project Plans

Milestone	Deliverable	Date
0. Forming a Team	Finding group members (Group 3)	Week 3-4
1. Project proposal	Finish the proposal document according to the template	Week 5
2. Project proposal presentation preparation	Work Division, presentation power point, making cvs (QS university ranking, program ranking)	Week 6
3. Work on java project	Brief structure, function of each page, and separate work on each page	Week 7-11
4. App design	Work on xml, app pages design	Week 12-13
5. Project presentation preparation	Presentation power point, final check	Week 13
6. Final project presentation	Presentation to the class	Week 14
7. Evaluation	Submission, complete evaluation form for teammates	Week 15

References

- Government of Canada Open Dataset
- Ontario Universities' Application Centre (OUAC)
- QS World University Rankings