CSC326 Final Project Report

Name and student number

Linpan Li: 999054918

Han Wang: 998001638

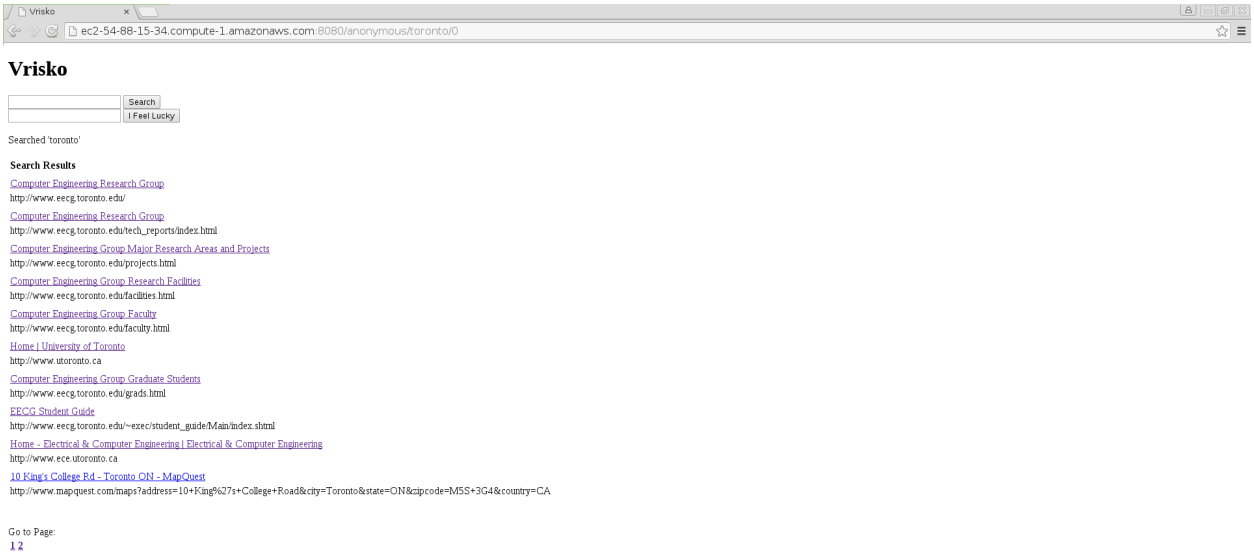
Shiyu Liu: 997625324

Description of enhanced search engine and difference with proposed design

We enhanced the search engine mainly from an aesthetically perspective.

On search page, we added logo animation of our search engine name “Vrisko”, the Greek word for “fast”. In addition, we added an “I feel lucky” button. Instead of returning ranked results, this button returns randomly selected page links that has the key words.

On result page, We displayed the page title as well as URL for searched results. We embedded the link in the page title, users can click the title and navigate to that page in a separate tab. Compared to Google who opened the page directly instead of creating a new tab, we feel this way is more user friendly. We also increased the number of links from 5 to 10 to fit the page better.



Lessons learnt from this project

Knowledge wise, we felt happy to be able to put Python and HTML into practical use. We learnt how to build a relatively large project piece by piece, how to organize and document each time's work so that it will be easier to "pick up" later.

Working habit wise, we learnt to start the work ASAP. The earlier one starts to work on it, the more margin he/she has and one can never have too

much safety of margin. We also learnt the importance of team work. We are very thankful that we have a good team and everybody can work together well. There has never been figure pointing when there was an issue, everybody was calm and trying to solve the problem.

Study habit wise, we have learnt to participate every lecture when we can. It takes double, probably triple amount of efforts to figure it out ourselves. The knowledge and help of the professor and TA is one of the greatest resources we have and we must utilize it efficiently in order to succeed in this course.

What would we do differently?

We would start to work on extra features and improvements right away in early labs instead of waiting till lab4, because most of the improvements are independent from each other or subsequent labs, such as speed of algorithm and aesthetic.

In lab4, we tried to improve everything all together in the end, but we already forgot some of the code we wrote before. That's why it took longer than expected. Also, lab4 is in final exam preparation period and that didn't help either.

How did the material of this course help?

There are so many ways the material of this course helped. To name some of the most important points: i) It introduced us to Python, one of the most user-friendly language we have ever used. When execution speed is not an issue, it takes much less time to program in Python than it is in C or Java. ii) This course helped us build a good backgrounds in functional and concurrent programming iii) This course's lab taught us how to use Python to do some web developments, this apparently is one of the most popular areas of employment nowadays.

How much time did it take to complete each lab?

Since we split the work equally. It takes roughly 5 hours on average for each person to complete his part. It will take another 5 hours of a team's time to compile and integrate everything.

Which part of project is useful and we should spend more time?

We think it will be very interesting if we can have more python programming in the lab. We think the work load is not that heavy for the lab and we can afford to increase the proportion of Python versus HTML or AWS set up without compromising their parts. For example, it will be interesting if the professor can go over the PageRank algorithm in class and let us use Python to implement our own version. That would be an excellent exercise for most of the materials we have learnt in this class.

Which part of project is useless?

The entire project is designed fairly well. If we have to name one area of improvement is that "more hints won't hurt our learning process". Sometimes the instructions are not specific enough so we spent lots of time on trying to figure out "What this and that means". For example, setting up AWS took us quite some time. While, we do understand this is a crucial part of an engineer's job, however, from a learning perspective, we feel like the time could be deployed to other things more efficiently.

Other feedback and recommendation for this course:

The course itself is very interesting. Python is a very fun and useful language to learn. Professor Zhu taught the material and answered any question students might have very well. The only thing that we suggest to improve is the course administration. For example, it would have been much easier if we had a blackboard page for this course instead of being emailed our marks.

It would also be nice to have more interesting practice problem sets for Python. We feel like the labs are not very related to the exams and the assignment are simply too short. These problem sets don’t have to be for marks.

Responsibilities of each member

We made a very nice team. Everybody was able and happy to independently program and research as well as collaborate together on some key issues.

Usually, we split the work equally at the beginning of each lab. We then each independently finish his part during the week and meet up on weekends to help others resolve difficult bugs and put everything together.