CPSC 335 Project 3 - Cuckoo Hashing

By: Jimmy Phong and Timothy Bui
JimmyPhong16@csu.fullerton.edu
timothybui98@csu.fullerton.edu

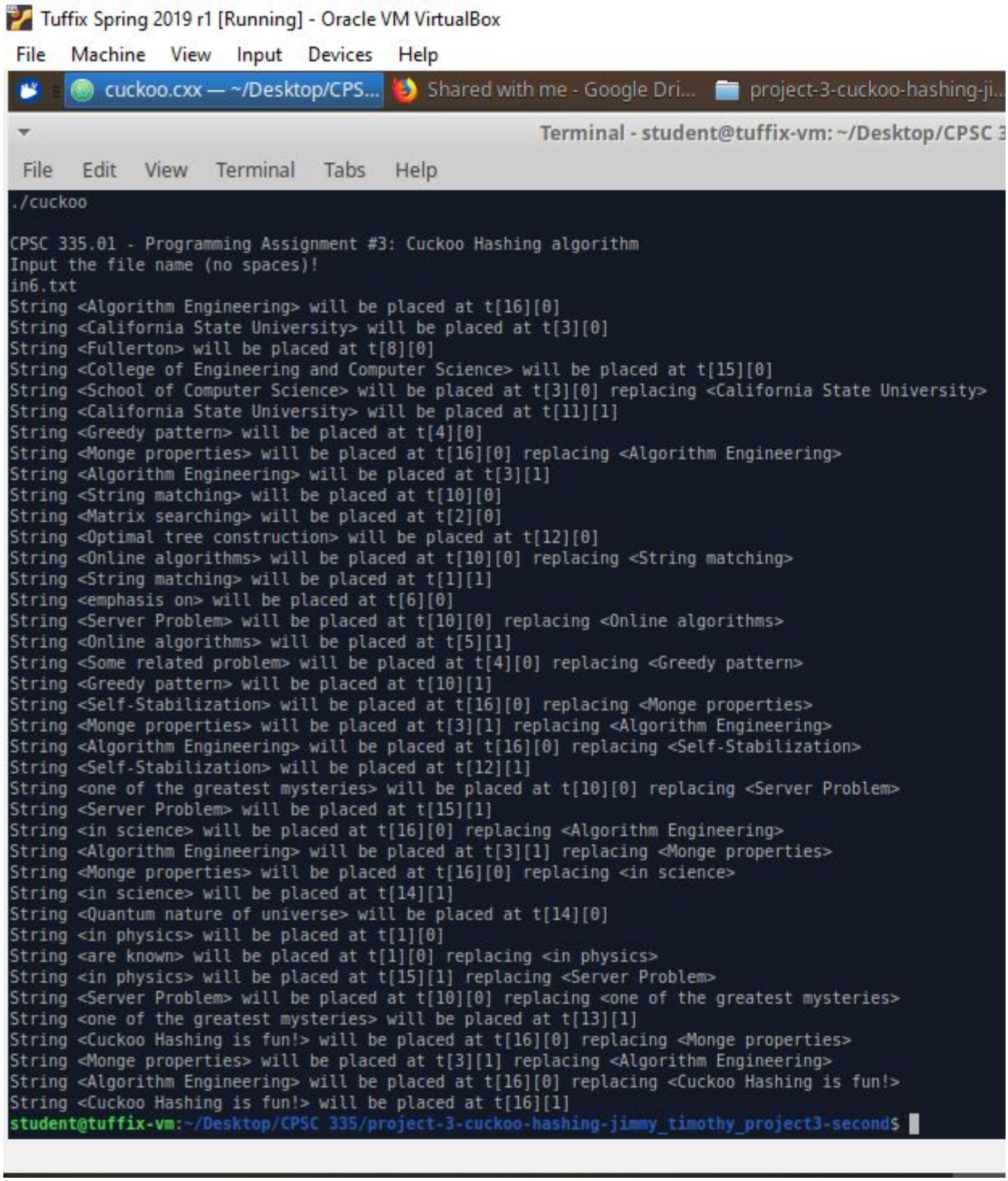
Project Description

In this project we will design, implement, and analyze one algorithm for the hashing problem. The algorithm is called Cuckoo Hashing, presented in class.. For this problem, we will design and implement one algorithm in C++, test it on various inputs and complete a hash table with a given input. Presented below is one of the testing input text files for the hashing algorithm.

Text file, “in6.txt”, contains the following string in order:

Algorithm Engineering
California State University
Fullerton
College of Engineering and Computer Science
School of Computer Science
Greedy pattern
Monge properties
String matching
Matrix searching
Optimal tree construction
Online algorithms
emphasis on
Server Problem
Some related problem
Self-Stabilization
one of the greatest mysteries
in science
Quantum nature of universe
in physics
are known
Cuckoo Hashing is fun!

Screenshot of terminal output



Hashing table for "in6.txt"

	Table $T_1(0)$	Table $T_2(1)$
[0]		
[1]	are known	String matching
[2]	Matrix searching	
[3]	California State University	Monge properties
[4]	Some related problem	
[5]		Online algorithms
[6]	emphasis on	
[7]		
[8]	Fullerton	
[9]		
[10]	Server Problem	Greedy pattern
[11]		California State University
[12]	Optimal tree construction	Self-Stabilization
[13]		one of the greatest mysteries
[14]	Quantum nature of universe	in science
[15]	School of Computer Science	in physics
[16]	Algorithm Engineering	Cuckoo Hashing is fun!