CSC424 System Administration
Lab Assignment 5

Due on 05/06/2017 11:59PM

Requirements

In this lab assignment, you are asked to write bash scripts to solve five different problems. For each problem, you need to write a program in a separate script.

Deliverables: you need to submit **five scripts** to blackboard as a zip file to blackboard. In your report, you need to include all the source code of your programs as well as the screenshots for program execution.

Grading: 2 points for each problem

Problems

Please write scripts to solve :

1. **Palindrome**
   Write a script to determine whether a given input is a palindrome. A palindrome is a word, phrase, number, or other sequence of characters which reads the same backward as forward, such as madam or racecar.

2. **Caesar cipher encryption**
   Write a script to encrypt a sentence using caesar cipher. Caesar cipher is a type of substitution cipher in which each letter in the plaintext is replaced by a letter some fixed number of positions down the alphabet. (you can assume the number is 3) For example:

   Plain: ABCDEFGHIJKLMNOPQRSTUVWXYZ
   Cipher: XYZABCDEFGHIJKLMNOPQRSTUVW

3. **Caesar cipher decoding**
   Write a script to decrypt encrypted text using caesar cipher.

4. **Student Record Generator**
   Write a program that generates student records in a database file. Your program should be able to generate at least 10 records. The format in the database should be:

   student name, student id

   The first student id should be 20180001, second id will be 20180001 and so forth.

5. **Creates student account**
   Write a script that reads student record from database file created by previous script. Create users account for each student and set their password as their student ID.