

# CS2023 - Inclass Lab

## Week 9 - Hash tables

**Note:** You are required to answer the below questions and submit a PDF to the submission link provided under this week before the deadline (no extensions will be provided). You can either write / type your answers, but either way your answers should be readable.

Add the link to the GitHub repository

### Lab instruction

Please download the lab\_materials.zip from the lab 9 section We will be implementing a Password look up system using hash tables. Please follow the instructions given by the instructor at the beginning of the session to complete the lab.

#### Section 1 : Implementing basic hash table

Expected submission

1. Complete *hashfunc*, *insert*, *hash\_lookup*
2. Insert your name as *user\_name* and your index number as password. Print *hash\_table* and take screenshot.
3. Add 3 more user names and passwords. Print *hash\_table* and take screenshot.
4. Delete your user name. Print *hash\_table* and take screenshot.
5. What is issue when using a simple hash table like this and how can we change it, explain your answer.

#### Section 2 : Implementing hash table with chaining

Expected submission

1. Complete *hash\_lookup*

2. Insert your name as `user_name` and your index number as `password`(do it two times). Print `hash_table` and take screenshot.
3. Add 3 more user names and passwords. Print `hash_table` and take screenshot.