University of Central Punjab

Faculty of Information Technology

Data Structures and Algorithms
Spring 2023

Graded Lab 05	
Topic	• Hash Tables
Objective	The basic purpose of this lab is to test students on Hash Tables

Graded Task

Task: Implement a Hash Table

Your task is to implement a hash table data structure in C++. The hash table should support the following operations:

1. Insert: Insert a key-value pair into the hash table.
2. Remove: Remove a key-value pair from the hash table.
3. Search: Search for a key in the hash table and return its corresponding value, or indicate if the key is not present.
4. Size: Return the number of elements in the hash table.
5. Clear: Remove all elements from the hash table.