

C++ Homework 08

1. tuple printer
 - a. write a template function “printer” to print the content of all elements in a tuple
2. Performance comparison of different containers :
 - a. Write a template class back_inserter:
 - i. takes one template parameter “CONter” to select the underlying container, and one template parameter “T” to decide the type of the value stored in the container.
 - ii. has a member function “insert_100k” using the “insert” function provided by the container to store 100,000 random value in the container (please use `std::uniform_int_distribution<T>`)
 1. example: `CONter<T> qq; qq.insert(XXX);`
 - iii. please use `std::chrono` to print the execution time needed for the insert function
 - b. Test the time needed for doing insert_100k with vector, deque, set, and list in the “main” function.
 - c. Write another member function “change_to_5566” that can modify all the elements in the container to “5566”
 - d. Test the time needed for doing change_to_5566 with vector, deque, set, and list in the “main” function.