# IEEE CP SMP 2018
# Assignment 2
# Topic: Time Complexity

Veena nagar
9480769359

## 1. Stacks

top() :- O(1)
push() :- O(1)
pop() :- O(1)
size() :- O(1)

## 2. Queues

front() :- O(1)
back() :- O(1)
push() :- O(1)
pop() :- O(1)
size() :- O(1)

## 3. Vectors

push_back() :- O(1)
sort :-O(nlog(n))
search() :- O(1)
erase() :- O(number of elements erased) + O(number of elements after the last deleted element)
size() :- O(1)

## 4. Array

lower_bound() :- O(n)
upper_bound() :- O(n)
next_permutation() :- O(n)
prev_permutation() :- O(n)

## 5. Pair

sort :- O(nlogn)
make_pair() :- O(1)
first() :- O(1)
second() :- O(1)

## 6. Priority Queue

top() :- O(1)
size() :- O(1)
push() :- O(logn)
pop() :- O(log n)
make_pair() :- O(1)

## 7. Map

insert() :- O(logn)
find() :- O(logn)
end() :- O(1)
begin() :- O(1)
make_pair() :-O(1)

## 8. Set

insert() :- O(log *n)*
size() :- O(1)
begin() :- O(1)
erase() :- O(1)
end() :- O(1)

## 9. MultiSet

begin() :- O(1)
end() :- O(1)
size() :- O(1)
erase() :- O(n)
insert() :- O(log n)
make_pair() :- O(1)

## 10. Double Ended Queue

push_back() :- O(1)
begin() :- O(1)
end() :- O(1)
push_front() :- O(1)
pop_front() :- O(1)
pop_back() :- O(1)
size() :- O(1)