**CSE 330 Lab Report # 4**

1. I’ve completed 100% of the lab.
2. Complexity Analysis

|  |  |  |
| --- | --- | --- |
| **Function Name** | **Time Complexity** | **Storage Complexity** |
| Main() | O(1) | O(1) |
| Vector() | O(1) | O(1) |
| Vector(unsigned int) | O(n) | O(1) |
| Vector(unsigned int, const T &) | O(n) | O(1) |
| Vector(const Vector<T>) | O(n) | O(1) |
| ~Vector() | O(1) | O(1) |
| Capacity() | O(1) | O(1) |
| Size() | O(1) | O(1) |
| Empty() | O(1) | O(1) |
| Iterator begin() | O(1) | O(1) |
| Iterator end() | O(1) | O(1) |
| Front() | O(1) | O(1) |
| Push\_back() | O(1) | O(1) |
| Pop\_back() | O(1) | O(1) |
| Reserve() | O(n) | O(1) |
| Resize() | O(1) | O(1) |
| Operator[] | O(1) | O(1) |
| Operator= | O(n) | O(1) |

3. See attached for source code