**Temporal and Spatial Complexity Analysis**

**Temporal Complexity Analysis:**

**Add method in a Hash Table**

|  |  |
| --- | --- |
| ***Statement*** | ***Effort*** |
| int index=hashFunction(key); | 1 |
| HashEntry<K,V> newEntry=new HashEntry< >(key,value); | 1 |
| HashEntry< K,V > current = table[index]; | 1 |
| if (current==null){ | 1 |
| table[index]=newEntry; | 1 |
| }else{  while(current.getNext!=null){ | n+1 |
| current=current.getNext();  } | n |
| current.setNext(newEntry); | 1 |
| newEntry.setPrev(current); | 1 |
| newEntry.setNext(null);  } | 1 |
| this.existingNodes++; | 1 |