ADS LAB

K. ARUN TEJA
IBM18CS041
5A

⊛ Write-Up

```
public class HashTable {
    String[][] table;
    int tablesize;

    HashTable (int size) {
        table = new String[size][];
        tablesize = size;
    }
    public void add (String key, String value) {
        if (key == null || value == null) {
            sys.out ("Cannot input null values");
        }
        int iter = 0;
        int code = Math.abs( key.hashCode() ) % tablesize;

        while ( table[code] != null ) {
            if ( table[code][0].equals(key)) {
                sys.out ("Already submitted " + key");
                return;
            }
            if ( iter == tablesize ) {
                sys.out ("Table is full");
                return;
            }
            code ++;
            code % = tablesize;
            iter ++;
        }
        table[code] = new String[] {key, value};

    }
}
```

```java
public void remove (String key) {
    if (key == null) {
        Sys.out ("Cannot input null value");
    }

    int iter = 0;
    int code = Math.abs (key.hashCode()) % tableSize;
    if (table [code][0].equals(key)) {
        table [code] = null;
    }
    else {
        while ( !table [code][0].equals (key)) {
            if (iter == tableSize) {
                Sys.out ("Cannot find word);
                return;
            }
            code ++
            code % = tablesize)
            iter ++;
        }
        table [code] = null;
    }
}

public string get (String key) {
    if (key == null) {
        return "Cannot input null value";
    }
    int iter = 0
    int code = Math.abs (key.hashCode()) % tablesize;
    while ( ! table [code][0].equals (key)){
        if (iter == tableSize) {
            return "Could not find word";
        }
        code++ ;
        code % = tablesize;
        iter ++ ;
    }
    return table [code][i];
}
```