Hashmap

- Stores key - value pairs
- Insertion, deletion, searching time complexity is O(1)

Brief Internal working

- Node class to store data

```
Node<K, V>{
        K key;
        V value;
        Int hash;
        Node<K,V> next;
}
```

- Hashmap uses buckets (arraylist whose index represents the hash values) to store the Node objects

```
HashMap<K,V>{
        ArrayList<Node<K,V>> buckets;
}
```

- Hash value is calculated on key element and then it is used to store the data at particular index in buckets

```
 Int hash-value = hashfunction(key)
bucket.add(hashvalue, data);
```

- That is how operations are done in O(1)
- Java by default provides Object.hashCode() method which returns integer hash-value