**Problem Solutions Approach**

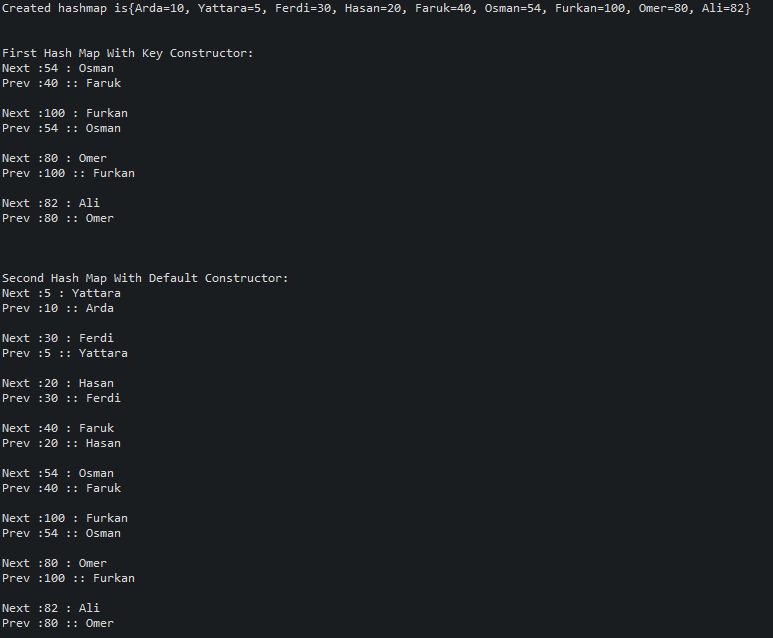
While solving this problem, I came up with two methods: first, I could extend the hashmap class and define an iterator, second, I could fill the hashmap array in main and push it to the custom iterator class and I can use its keyset, and navigate through the keys. So I choose the second one because I couldn’t do the first one.

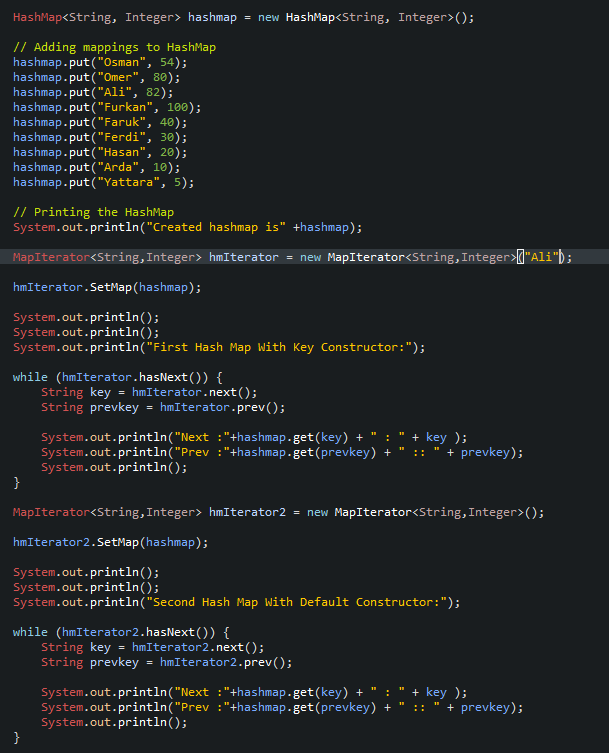
**Test Cases**

|  |  |
| --- | --- |
| Test Case | Condition |
| TC01 | Fill the hashmap. |
| TC02 | Print HashMap keys with values. |
| TC03 | Create a new iterator parameter with key constructor. |
| TC04 | Create a new iterator parameter with default constructor. |
| TC05 | Iterates and print the key with next and prev, control with hasnext, with starting index. |
| TC06 | Iterates and print the key with next and prev, control with hasnext, with starting index,’0’. |

**Running Command and Results**



****

****

