

static hashing refers to a method of organizing and storing data in a hash table where the number of buckets (or partitions) remains fixed. Each bucket is associated with a specific range of hash values, and a hash function is used to map data items to these buckets. This technique is commonly used in the implementation of hash-based indexing in database systems.

Code

```
import java.util.ArrayList;
import java.util.Scanner;

class StaticHashing {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);
        boolean keepGoing = true;

        ArrayList<Integer>[] list = new ArrayList[8];
        for (int i = 0; i < 8; i++) {
            list[i] = new ArrayList<>(3);
        }

        while (keepGoing) {
            System.out.println("1) Enter into Database ");
            System.out.println("else Exit");
            int choice = scanner.nextInt();
```

```

if (choice == 1) {
    System.out.print("Enter Data: ");
    String input = scanner.next();
    long ans = calculateBinarySum(input);
    list[(int) (ans % 8)].add((int) ans);
}
else {
    keepGoing = false;
}
}

```

```

System.out.println("Buckets after insertion :");
for (int i = 0; i < 8; i++) {
    System.out.println(list[i]);
}

```

```

scanner.close();
}

```

```

private static long calculateBinarySum(String name) {
    long binarySum = 0;

    for (char c : name.toCharArray()) {
        // Convert each character to binary and add to the sum
        String binaryRepresentation = String.format("%8s",
            Integer.toBinaryString(c)).replace(' ', '0');
    }
}

```

```
        binarySum += Long.parseLong(binaryRepresentation, 2);  
    }  
  
    return binarySum;  
}  
  
}
```