

Input for Mapper 0

```
apple lemon  
mango salmon  
wheat apple
```

Input for Mapper 1

```
barley salmon  
apple orange  
carrot rice
```

Input for Mapper 2

```
mango carrot  
lemon carrot  
apple rice tuna
```

```
class Mapper
```

```
    method Initialize
```

```
        H = new AssociativeArray
```

```
    method Map(docid a; doc d)
```

```
        for all term t in doc d do
```

```
             $H\{t\} = H\{t\} + 1$ . //count number of each t
```

```
    method Close
```

```
        for all term t in H do
```

```
            Emit(term t; count  $H\{t\}$ )
```

Output for Mapper 0

```
(apple , 2)
```

```
(lemon , 1)
```

```
(mango , 1)
```

```
(salmon , 1)
```

```
(wheat , 1)
```

Output for Mapper 1

```
(barley , 1)
```

```
(salmon , 1)
```

```
(apple , 1)
```

```
(orange , 1)
```

```
(carrot , 1)
```

```
(rice , 1)
```

Output for Mapper 2

```
(mango , 1)
```

```
(carrot , 2)
```

```
(lemon , 1)
```

```
(apple , 1)
```

```
(rice , 1)
```

```
(tuna , 1)
```

Input for reducers

Key < k for Reducer 0

```
(apple , [2,1,1])
```

```
(barley , [1])
```

```
(carrot , [1,2])
```

others for Reducer 1

```
(lemon , [1,1])
```

```
(mango , [1,1])
```

```
(orange , [1])
```

Key > r for Reducer 2

```
(rice , [1,1])
```

```
(salmon , [1,1])
```

```
(tuna , [1])
```

```
(wheat , [1])
```