

## **CODE**

```
collections = {}

def createCollection(p_collection_name):
    collections[p_collection_name] = []

def indexData(p_collection_name, p_exclude_column):
    employees = [
        {'EmployeeID': '1001', 'Name': 'JERISH', 'Department': 'IT', 'Gender': 'Male'},
        {'EmployeeID': '103', 'Name': 'BALAKRISHN', 'Department': 'HR', 'Gender': 'Male'},
        {'EmployeeID': '103', 'Name': 'ROGAN', 'Department': 'Designer', 'Gender': 'Male'},
        {'EmployeeID': '104', 'Name': 'KAVYA', 'Department': 'Manager', 'Gender': 'Female'}
    ]

    indexed_employees = [{k: v for k, v in emp.items() if k != p_exclude_column} for emp in employees]

    collections[p_collection_name].extend(indexed_employees)

def searchByColumn(p_collection_name, p_column_name, p_column_value):
    results = [emp for emp in collections[p_collection_name] if emp.get(p_column_name) == p_column_value]

    return results

def getEmpCount(p_collection_name):
    return len(collections[p_collection_name])

def delEmpById(p_collection_name, p_employee_id):
    collections[p_collection_name] = [emp for emp in collections[p_collection_name] if emp.get('EmployeeID') != p_employee_id]

def getDepFacet(p_collection_name):
    dep_count = {}

    for emp in collections[p_collection_name]:
        dep = emp.get('Department')

        if dep in dep_count:
            dep_count[dep] += 1
        else:
            dep_count[dep] = 1

    return dep_count
```

```
v_nameCollection = 'Hash_YourName'
v_phoneCollection = 'Hash_1234'
createCollection(v_nameCollection)
createCollection(v_phoneCollection)
indexData(v_nameCollection, 'Department')
indexData(v_phoneCollection, 'Gender')
print("Employee count :", getEmpCount(v_nameCollection))
delEmpById(v_nameCollection, '103')
print("Employee count after deletion:", getEmpCount(v_nameCollection))
print("Search by Department (IT) :", searchByColumn(v_nameCollection, 'Department', 'IT'))
print("Search by Gender (Male) :", searchByColumn(v_nameCollection, 'Gender', 'Male'))
print("Search by Department (IT) :", searchByColumn(v_phoneCollection, 'Department', 'IT'))
print("Department facet for v_nameCollection:", getDepFacet(v_nameCollection))
print("Department facet for v_phoneCollection:", getDepFacet(v_phoneCollection))
```

## **OUTPUT**

Employee count: 4

Employee count after deletion: 2

Search by Department (IT): []

Search by Gender (Male): [{'EmployeeID': '1001', 'Name': 'JERISH', 'Gender': 'Male'}]

Search by Department (IT): [{'EmployeeID': '1001', 'Name': 'JERISH', 'Department': 'IT'}]

Department facet for v\_nameCollection: {None: 2}

Department facet for v\_phoneCollection: {'IT': 1, 'HR': 1, 'Designer': 1, 'Manager': 1}