**Exercise 4: Employee Management System**

public class EmployeeManagementSystem {

// Step 2: Employee class

static class Employee {

int employeeId;

String name;

String position;

double salary;

public Employee(int employeeId, String name, String position, double salary) {

this.employeeId = employeeId;

this.name = name;

this.position = position;

this.salary = salary;

}

public void display() {

System.out.println("ID: " + employeeId + ", Name: " + name + ", Position: " + position + ", Salary: ₹" + salary);

}

}

// Fixed-size array for employees

static class EmployeeArrayManager {

private Employee[] employees;

private int count;

public EmployeeArrayManager(int size) {

employees = new Employee[size];

count = 0;

}

public void addEmployee(Employee e) {

if (count < employees.length) {

employees[count++] = e;

System.out.println("Employee added.");

} else {

System.out.println("Array is full. Cannot add more employees.");

}

}

public Employee searchEmployeeById(int id) {

for (int i = 0; i < count; i++) {

if (employees[i].employeeId == id) {

return employees[i];

}

}

return null;

}

public void traverseEmployees() {

if (count == 0) {

System.out.println("No employees to display.");

return;

}

for (int i = 0; i < count; i++) {

employees[i].display();

}

}

public void deleteEmployeeById(int id) {

int index = -1;

for (int i = 0; i < count; i++) {

if (employees[i].employeeId == id) {

index = i;

break;

}

}

if (index == -1) {

System.out.println("Employee not found.");

return;

}

for (int i = index; i < count - 1; i++) {

employees[i] = employees[i + 1];

}

employees[--count] = null;

System.out.println("Employee deleted.");

}

}

// Step 5: Test in main()

public static void main(String[] args) {

EmployeeArrayManager manager = new EmployeeArrayManager(5);

manager.addEmployee(new Employee(101, "Kalai", "Developer", 60000));

manager.addEmployee(new Employee(102, "Arasan", "Manager", 85000));

manager.addEmployee(new Employee(103, "Priya", "Tester", 50000));

System.out.println("\nAll Employees:");

manager.traverseEmployees();

System.out.println("\nSearching for employee with ID 102:");

Employee e = manager.searchEmployeeById(102);

if (e != null) e.display(); else System.out.println("Not found");

System.out.println("\nDeleting employee with ID 102:");

manager.deleteEmployeeById(102);

manager.traverseEmployees();

}

}

OUTPUT:

A screenshot of a computer program

AI-generated content may be incorrect.