**Java Collection and Package**

1. Create a package name **“com.example.hr"** that includes an Employee class

Variables

**name** - a string that represents the employee's name.

**id** an integer that represents the employee's ID number.

**salary** - a double that represents the employee's salary.

Method

**public void printName()**- a method that prints the employee's name to the console.

**public void printSalary()**- a method that prints the employee's salary to the console.

Create a second package **“com.example.hrtest”** with a class named "Employee Test".

main method that creates an instance of the **"Employee"** class, sets the employee's

number, and salary, and calls its methods to print the employee's name and salary

import statement to **import** the "com.example.hr" package and access the "Employee" class. Compile and run

| Employee  **package** com.example.hr;  **public** **class** Employee {  // Private fields to store employee information  **private** String name;  **private** **int** id;  **private** **double** salary;  // Constructor to initialize employee object with provided values  **public** Employee(String name, **int** id, **double** salary) {  **this**.name = name;  **this**.id = id;  **this**.salary = salary;  }  // Getter method to retrieve the employee's name  **public** String getName() {  **return** name;  }  // Setter method to set the employee's name  **public** **void** setName(String name) {  **this**.name = name;  }  // Getter method to retrieve the employee's ID  **public** **int** getId() {  **return** id;  }  // Setter method to set the employee's ID  **public** **void** setId(**int** id) {  **this**.id = id;  }  // Getter method to retrieve the employee's salary  **public** **double** getSalary() {  **return** salary;  }  // Setter method to set the employee's salary  **public** **void** setSalary(**double** salary) {  **this**.salary = salary;  }  // Method to print the employee's name  **public** **void** printName() {  System.***out***.println("Employee name: " + name);  }  // Method to print the employee's salary  **public** **void** printSalary() {  System.***out***.println("Employee salary: " + salary);  }  }  EmployeeTest  **package** com.example.hrtest;  **import** com.example.hr.Employee;  **public** **class** EmployeeTest {  **public** **static** **void** main(String[] args) {  // Create an employee object with name "John Doe", ID 12345, and salary 50000.00  Employee employee = **new** Employee("John Doe", 12345, 50000.00);  // Print the employee's name  employee.printName();  // Print the employee's salary  employee.printSalary();  }  }  **Output**  Employee name: John Doe  Employee salary: 50000.0 |
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1. Write a java program to create an ArrayList of strings and then remove all the elements from the ArrayList?

| **package** trainingtaskcompletion;  **import** java.util.ArrayList;  **public** **class** RemoveAllElements {  **public** **static** **void** main(String[] args) {  // Create an ArrayList of strings  ArrayList<String> arrayList = **new** ArrayList<>();  // Add some elements to the ArrayList  arrayList.add("Java");  arrayList.add("Python");  arrayList.add("C++");  arrayList.add("JavaScript");  // Display the ArrayList before removing elements  System.***out***.println("ArrayList before removing elements:");  System.***out***.println(arrayList);  System.***out***.println();  // Remove all elements from the ArrayList  arrayList.clear();  // Display the ArrayList after removing elements  System.***out***.println("ArrayList after removing elements:");  System.***out***.println(arrayList);  }  }  **OutPut:-**  ArrayList before removing elements:  [Java, Python, C++, JavaScript]  ArrayList after removing elements:  [] |
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1. Write a java program to create a tree map of employee ids and names. then print out the name of all the employees in alphabetical order?

| **package** trainingtaskcompletion;  **import** java.util.TreeMap;  **import** java.util.ArrayList;  **import** java.util.Collections;  **public** **class** TreeMapcls {  **public** **static** **void** main(String[] args) {  // Create a TreeMap to store employee IDs and names  TreeMap<Integer, String> employeeMap = **new** TreeMap<>();  // Add employee IDs and names to the TreeMap  employeeMap.put(101, "John");  employeeMap.put(102, "Alice");  employeeMap.put(103, "Bob");  employeeMap.put(104, "Charlie");  employeeMap.put(105, "Emma");  // Extract the names of employees and store them in a list  ArrayList<String> employeeNames = **new** ArrayList<>(employeeMap.values());  // Sort the list of employee names alphabetically  Collections.*sort*(employeeNames);  // Print out the names of all the employees in alphabetical order  System.***out***.println("Names of employees in alphabetical order:");  **for** (String name : employeeNames) {  System.***out***.println(name);  }  }  }  **Output:-**  Names of employees in alphabetical order:  Alice  Bob  Charlie  Emma  John |
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1. Write a program to convert list to array

| **package** trainingtaskcompletion;  **import** java.util.ArrayList;  **public** **class** ListToArray {  **public** **static** **void** main(String[] args) {  // Create a list of strings  List<String> stringList = **new** ArrayList<>();  stringList.add("Java");  stringList.add("Python");  stringList.add("C++");  stringList.add("JavaScript");  // Display the StringList before Adding into Array  System.***out***.println("StringList before Adding into Array:");  System.***out***.println(stringList);  System.***out***.println();  // Convert the list to an array  String[] stringArray = **new** String[stringList.size()];  stringArray = stringList.toArray(stringArray);  // Print the elements of the array  System.***out***.println("Array elements:");  **for** (String str : stringArray) {  System.***out***.println(str);  }  }  }  **Output**  StringList before Adding into Array:  [Java, Python, C++, JavaScript]  Array elements:  Java  Python  C++  JavaScript |
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