1. How to add an element at a specific position in an ArrayList (create using <>)

. **package** com.ust.assessment5;

//How to add an element at a specific position in an ArrayList (create using <>)

**import** java.util.ArrayList;

**public** **class** Question1 {

**public** **static** **void** main(String[] args) {

ArrayList<String> names = **new** ArrayList<String>();

names.add("Java");

names.add("Kotlin");

names.add("Android");

names.add(2,"Python");

names.forEach(name -> {

System.***out***.println(name);

});

}

}



1. Create an array of employee objects and iterate through it and remove the object at the 2nd position.

. package com.ust.assessment5;

//Create an array of employee objects and iterate through it

//and remove the object at the 2nd position.

import java.util.ArrayList;

public class Question2 {

public static void main(String args[]){

ArrayList<String> Employeelist=new ArrayList<String>();

Employeelist.add("Amal");

Employeelist.add("Tim");

Employeelist.add("Lucy");

Employeelist.add("Pat");

Employeelist.add("Angela");

Employeelist.add("Tom");

//displaying elements

System.out.println("Before modify:");

System.out.println(Employeelist);

//Removing 2rd element

Employeelist.remove(2);

//displaying elements

System.out.println("After modify:");

System.out.println(Employeelist);

}

}



1. Create a HashMap type and display the elements using the keyset()

. package com.ust.assessment5;

//Create a HashMap type and display the elements using the keyset()

import java.util.HashMap;

import java.util.Set;

public class Question3 {

public static void main(String args[])

{

// 1 Creation of HashMap

HashMap<String, String> hmap = new HashMap<>();

hmap.put("Language", "Java");

hmap.put("Stream", "fsd");

hmap.put("Code", "HashMap");

hmap.put("Learn", "More");

Set<String> keys = hmap.keySet();

System.out.println("Initial keys : " +keys);

// Adding new set of key-value

hmap.put("Search", "JavaArticle");

// Again using .keySet()

System.out.println("New Keys : " +keys);

System.out.println("New Hmap : " +hmap);

}

}



1. Create a Set type and check if it holds any duplicate value. Work on both TreeSet and HashSet

. package com.ust.assessment5;

import java.util.Arrays;

import java.util.TreeSet;

//Create a Set type and check if it holds any duplicate value.

//Work on both TreeSet and HashSet

public class Question4 {

public static void main(String[] args) {

String[] array = new String[]{"a", "d", "z", "x", "t", "b", "a", "z"};

System.out.println("Input Array is : " + (Arrays.toString(array)));

TreeSet<String> treeSet = new TreeSet<String>();

for (String str : array) {

if (!treeSet.add(str)) {

System.out.println("Duplicate Entry is: " + str);

}

}

System.out.println("TreeSet is : " + treeSet);

}

}

…….

package com.ust.assessment5;

import java.util.HashSet;

import java.util.Set;

//Create a Set type and check if it holds any duplicate value.

// HashSet

public class Question4\_2 {

private static void findduplicate(int[] arr) {

Set<Integer> hs= new HashSet<Integer>();

for(int x: arr) {

if(!hs.add(x)) {

System.out.println("duplicate is" +x);

}

}

}

public static void main(String[] args) {

int[] inputArr= {2,5,6,7,11,8,2,9,7};

Question4\_2.findduplicate(inputArr);

}

}



1. Write a program to sort the employee objects using the Comparable and Comparator.

package com.ust.assessment5;

import java.util.ArrayList;

import java.util.\*;

//Write a program to sort the employee objects using the Comparable and Comparator.

class Movie implements Comparable<Movie>

{

private double rating;

private String name;

private int year;

public int compareTo(Movie m)

{

return this.year - m.year;

}

public Movie(String nm, double rt, int yr)

{

this.name = nm;

this.rating = rt;

this.year = yr;

}

public double getRating() {

return rating;

}

public String getName() {

return name;

}

public int getYear() {

return year;

}

}

public class Question5 {

public static void main(String[] args) {

ArrayList<Movie> list = new ArrayList<Movie>();

list.add(new Movie("Force Awakens", 8.3, 2015));

list.add(new Movie("Star Wars", 8.7, 1977));

list.add(new Movie("Empire Strikes Back", 8.8, 1980));

list.add(new Movie("Return of the Jedi", 8.4, 1983));

Collections.sort(list);

System.out.println("Movies after sorting : ");

for (Movie movie: list)

{

System.out.println(movie.getName() + " " + movie.getRating() + " " + movie.getYear());

}

}

}

