Day 7

1) [1] class Example{

public static void main(String[] args) {

int[] arr = new int[10];

arr[0] = 12;

arr[1] = 35;

arr[2] = 47;

arr[3] = 59;

arr[4] = 62;

arr[5] = 73;

arr[6] = 81;

arr[7] = 93;

arr[8] = 111;

arr[9] = 121;

System.out.println(arr[0]);

System.out.println(arr[3]);

System.out.println(arr[5]);

}

}

[4] System.out.println(arr[0]); // Output: 12

System.out.println(arr[3]); // Output: 59

System.out.println(arr[5]); // Output: 73

2.[1] class Example{

public static void main(String[] args) {

double[] averages = {85.66, 78.00, 67.33, 57.66, 81.00, 91.00, 53.66, 61.66, 74.33, 79.33};

System.out.println("Average marks of the 3rd student: " + averages[2]);

System.out.println("Average marks of the 7th student: " + averages[6]);

}

}

3.[1] class Example{

public static void main(String[] args) {

double[] reserves = {2031, 2056, 1936, 1800, 1823, 1840, 1790, 1760, 1750, 1720, 1700, 1690};

System.out.println("January: " + reserves[0]);

System.out.println("February: " + reserves[1]);

System.out.println("March: " + reserves[2]);

System.out.println("April: " + reserves[3]);

System.out.println("May: " + reserves[4]);

System.out.println("June: " + reserves[5]);

System.out.println("July: " + reserves[6]);

System.out.println("August: " + reserves[7]);

System.out.println("September: " + reserves[8]);

System.out.println("October: " + reserves[9]);

System.out.println("November: " + reserves[10]);

System.out.println("December: " + reserves[11]);

}

}

[2] class Example{

public static void main(String[] args) {

double[] reserves = {2031, 2056, 1936, 1800, 1823, 1840, 1790, 1760, 1750, 1720, 1700, 1690};

reserves[3] = 1812;

reserves[6] = 1817;

System.out.println("Corrected April reserves: " + reserves[3]);

System.out.println("Corrected July reserves: " + reserves[6]);

}

}

[3] class Example{

public static void main(String[] args) {

double[] reserves = {2031, 2056, 1936, 1800, 1823, 1840, 1790, 1760, 1750, 1720, 1700, 1690};

reserves[3] = 1812;

reserves[6] = 1817;

System.out.println("Corrected April reserves: " + reserves[3]);

System.out.println("Corrected July reserves: " + reserves[6]);

}

}

System.out.println("Corrected April reserves: " + reserves[3]); // Output: 1812

System.out.println("Corrected July reserves: " + reserves[6]); // Output: 1817

5. class Example{

public static void main(String[] args) {

int[] marks = {56, 81, 43, 69, 93, 54, 48, 47, 51, 79, 82, 96, 57, 61, 66};

for (int i = 0; i < marks.length; i++) {

System.out.println("Marks of student " + (i + 1) + ": " + marks[i]);

}

}

}

class Example{

public static void main(String[] args) {

int[] marks = {56, 81, 43, 69, 93, 54, 48, 47, 51, 79, 82, 96, 57, 61, 66};

for (int i = 9; i < marks.length; i++) {

System.out.println("Marks of student " + (i + 1) + ": " + marks[i]);

}

}

}

class Example{

public static void main(String[] args) {

String[] days = {"Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday"};

System.out.println(java.util.Arrays.toString(days));

}

}

class Example{

public static void main(String[] args) {

String[] days = {"Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday"};

for (int i = days.length - 1; i >= 0; i--) {

System.out.println(days[i]);

}

}

}

class Eample{

public static void main(String[] args) {

char[] letters = "ABCDEFGHIJKLMNOPQRSTUVWXYZ".toCharArray();

System.out.println(java.util.Arrays.toString(letters));

}

}

class Example{

public static void main(String[] args) {

char[] letters = "ABCDEFGHIJKLMNOPQRSTUVWXYZ".toCharArray();

// Printing block letters at even indices

System.out.println("Block letters at even indices:");

for (int i = 0; i < letters.length; i += 2) {

System.out.print(letters[i] + " ");

}

System.out.println("\nBlock letters at odd indices:");

for (int i = 1; i < letters.length; i += 2) {

System.out.print(letters[i] + " ");

}

}

}

class Example{

public static void main(String[] args) {

char[] letters = "ABCDEFGHIJKLMNOPQRSTUVWXYZ".toCharArray();

// Printing the block letters in reverse order

for (int i = letters.length - 1; i >= 0; i--) {

System.out.print(letters[i] + " ");

}

}

}

class Example{

public static void main(String[] args) {

int[] rainfall = {2346, 1945, 2060, 1781, 2365, 1005, 1162, 1016, 1512, 2231, 1903, 12061, 1005, 1545, 2156, 2037, 1583, 3668};

// Printing the number of districts

System.out.println("Number of districts: " + rainfall.length);

}

}

class Exampe{

public static void main(String[] args) {

int[] rainfall = {2346, 1945, 2060, 1781, 2365, 1005, 1162, 1016, 1512, 2231, 1903, 12061, 1005, 1545, 2156, 2037, 1583, 3668};

int countMoreThan2000 = 0;

int countLessThan1000 = 0;

for (int i = 0; i < rainfall.length; i++) {

if (rainfall[i] > 2000) countMoreThan2000++;

if (rainfall[i] < 1000) countLessThan1000++;

}

System.out.println("Number of districts with more than 2000mm rainfall: " + countMoreThan2000);

System.out.println("Number of districts with less than 1000mm rainfall: " + countLessThan1000);

}

}

class Example{

public static void main(String[] args) {

int[] rainfall = {2346, 1945, 2060, 1781, 2365, 1005, 1162, 1016, 1512, 2231, 1903, 12061, 1005, 1545, 2156, 2037, 1583, 3668};

int totalRainfall = 0;

for (int value : rainfall) {

totalRainfall += value;

}

double averageRainfall = (double) totalRainfall / rainfall.length;

System.out.println("Average annual rainfall: " + averageRainfall + " mm");

}

}

7. class Example{

public static void main(String[] args) {

char[] blockLetters = "ABCDEFGHIJKLMNOPQRSTUVWXYZ".toCharArray();

System.out.print("[ ");

for (int i = 0; i < blockLetters.length; i++) {

if (i == blockLetters.length - 1) {

System.out.print(blockLetters[i] + " ");

} else {

System.out.print(blockLetters[i] + ", ");

}

}

System.out.println("]");

System.out.print("Even index letters: ");

for (int i = 0; i < blockLetters.length; i += 2) {

System.out.print(blockLetters[i] + " ");

}

System.out.println();

System.out.print("Odd index letters: ");

for (int i = 1; i < blockLetters.length; i += 2) {

System.out.print(blockLetters[i] + " ");

}

System.out.println();

System.out.print("Reverse order: ");

for (int i = blockLetters.length - 1; i >= 0; i--) {

System.out.print(blockLetters[i] + " ");

}

System.out.println();

}

}

8. class Example{

public static void main(String[] args) {

int[] rainfall = {2346, 1945, 2060, 1781, 2365, 1005, 1162, 1016, 1512, 2231,

1903, 12061, 1005, 1545, 2156, 2037, 1583, 3668};

System.out.println("Number of districts: " + rainfall.length);

int countMoreThan2000 = 0;

for (int i = 0; i < rainfall.length; i++) {

if (rainfall[i] > 2000) {

countMoreThan2000++;

}

}

System.out.println("Number of districts with more than 2000mm of rainfall: " + countMoreThan2000);

int countLessThan1000 = 0;

for (int i = 0; i < rainfall.length; i++) {

if (rainfall[i] < 1000) {

countLessThan1000++;

}

}

System.out.println("Number of districts with less than 1000mm of rainfall: " + countLessThan1000);

int totalRainfall = 0;

for (int i = 0; i < rainfall.length; i++) {

totalRainfall += rainfall[i];

}

double averageRainfall = (double) totalRainfall / rainfall.length;

System.out.println("Average annual rainfall: " + averageRainfall + " mm");

}

}

9. class Example {

public static void main(String args[]) {

int[] array;

}

}

12. import java.util.Scanner;

class Example{

public static void main(String[] args) {

int[] marks = new int[9];

Scanner scanner = new Scanner(System.in);

System.out.println("Enter the marks for 9 subjects: ");

for (int i = 0; i < marks.length; i++) {

System.out.print("Enter mark for subject " + (i + 1) + ": ");

marks[i] = scanner.nextInt();

}

int totalMarks = 0;

for (int mark : marks) {

totalMarks += mark;

}

System.out.println("Total marks: " + totalMarks);

double averageMarks = (double) totalMarks / marks.length;

System.out.println("Average marks: " + averageMarks);

int minMark = marks[0];

for (int mark : marks) {

if (mark < minMark) {

minMark = mark;

}

}

System.out.println("Minimum mark: " + minMark);

int maxMark = marks[0];

for (int mark : marks) {

if (mark > maxMark) {

maxMark = mark;

}

}

System.out.println("Maximum mark: " + maxMark);

int countGreaterThan75 = 0;

for (int mark : marks) {

if (mark > 75) {

countGreaterThan75++;

}

}

System.out.println("Number of marks greater than 75: " + countGreaterThan75);

int countLessThan45 = 0;

for (int mark : marks) {

if (mark < 45) {

countLessThan45++;

}

}

System.out.println("Number of marks less than 45: " + countLessThan45);

boolean has100Marks = false;

for (int mark : marks) {

if (mark == 100) {

has100Marks = true;

break;

}

}

if (has100Marks) {

System.out.println("The student got 100 marks in at least one subject.");

} else {

System.out.println("The student did not get 100 marks in any subject.");

}

scanner.close();

}

}