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UNIT: JAVA PROGRAMMING.

1.Write a Java program that asks the user to enter their sur name and current age then print the number of characters of their sir name and even or odd depending on their age number.

Example of Expected result:

If sir name is Saruni and age is 29, output will be;

then the number of characters is 6.

Your current age is an odd number

import java.util.Scanner;

public class SurnameAndAge {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

// Ask user for surname

System.out.print("Enter your surname: ");

String surname = scanner.nextLine();

// Ask user for age

System.out.print("Enter your current age: ");

int age = scanner.nextInt();

// Calculate the number of characters in the surname

int surnameLength = surname.length();

// Check if age is even or odd

String ageType = (age % 2 == 0) ? "even" : "odd";

// Print the results

System.out.println("The number of characters in your surname is: " + surnameLength);

System.out.println("Your current age is an " + ageType + " number");

scanner.close();

}

}

1. Write Java program to ask student to enter the marks of the five units they did last semester, compute the average and display it on the screen. (Average should be given in two decimal places).

import java.util.Scanner;

public class AverageMarks {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

// Ask the student to enter marks for each unit

System.out.println("Enter the marks for each unit:");

double totalMarks = 0;

for (int i = 1; i <= 5; i++) {

System.out.print("Unit " + i + ": ");

double marks = scanner.nextDouble();

totalMarks += marks;

}

// Calculate the average marks

double averageMarks = totalMarks / 5;

// Display the average marks with two decimal places

System.out.printf("Average marks: %.2f%n", averageMarks);

scanner.close();

}

}

1. Write a program that will help kids learn divisibly test of numbers of integers. The program should check whether the given integer is divisible by integers in the range of 0-9. For example, if a number (955) is divisible by five, the program should print, the number is divisible by 5 because it ends with a 5, and 900 is divisible by 5 because it ends with a 0(zero).

import java.util.Scanner;

public class DivisibilityTest {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

// Ask the user to enter an integer

System.out.print("Enter an integer: ");

int number = scanner.nextInt();

// Check divisibility by integers in the range of 0-9

for (int i = 0; i <= 9; i++) {

if (number % i == 0) {

System.out.println("The number is divisible by " + i);

}

}

1. Write a Java program to display all the multiples of 2, 3 and 7 within the range 71 to 150.

public class MultiplesInRange {

public static void main(String[] args) {

int start = 71;

int end = 150;

System.out.println("Multiples of 2, 3, and 7 within the range of " + start + " to " + end + ":");

for (int i = start; i <= end; i++) {

if (i % 2 == 0 || i % 3 == 0 || i % 7 == 0) {

System.out.println(i);

}

}

}

}

5.Create a calculator using java to help user perform the basic operations (+, -, \* and /).

a.User should be asked to enter a number, then an operation, the program computes the operation and display the output to the computer screen.

Certainly! Here's a Java program that acts as a basic calculator, allowing the user to perform addition, subtraction, multiplication, and division operations:

import java.util.Scanner;

public class Calculator {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

// Ask the user to enter the first number

System.out.print("Enter the first number: ");

double num1 = scanner.nextDouble();

// Ask the user to enter the operation

System.out.print("Enter the operation (+, -, \*, /): ");

char operation = scanner.next().charAt(0);

// Ask the user to enter the second number

System.out.print("Enter the second number: ");

double num2 = scanner.nextDouble();

double result = 0;

// Perform the selected operation

switch (operation) {

case '+':

result = num1 + num2;

break;

case '-':

result = num1 - num2;

break;

case '\*':

result = num1 \* num2;

break;

case '/':

result = num1 / num2;

break;

default:

System.out.println("Invalid operation!");

break;

}

// Display the result

System.out.println("Result: " + result);

scanner.close();

}

}