**Option # 1: Looping Construct with Floating Point Numbers**

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**Option # 1: Looping Construct with Floating Point Numbers**

**Pseudocode**

Initialize total to 0

Initialize counter to 0

Initialize max and min to None

WHILE counter < 5 DO

Prompt user to enter a floating-point number

Read number

IF counter == 0 THEN

Set max and min to number

ELSE

IF number > max THEN

Set max to number

IF number < min THEN

Set min to number

Add number to total

Increment counter

Compute average = total / 5

Compute interest = total \* 0.20

Display total

Display average

Display maximum

Display minimum

Display interest on total

**Source Code**

import java.util.Scanner;

public class FloatingPointLoop {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

double total = 0.0;

int count = 0;

double max = Double.MIN\_VALUE;

double min = Double.MAX\_VALUE;

while (count < 5) {

System.out.print("Enter floating-point number " + (count + 1) + ": ");

if (scanner.hasNextDouble()) {

double value = scanner.nextDouble();

total += value;

if (value > max) {

max = value;

}

if (value < min) {

min = value;

}

count++;

} else {

System.out.println("Invalid input. Please enter a valid floating-point number.");

scanner.next(); // clear the invalid input

}

}

double average = total / 5;

double interest = total \* 0.20;

System.out.println("\nTotal: " + total);

System.out.println("Average: " + average);

System.out.println("Maximum: " + max);

System.out.println("Minimum: " + min);

System.out.println("Interest on total at 20%: " + interest);

scanner.close();

}

}

**A screen shot of a computer

Description automatically generated**

<https://github.com/Miriamva216/floating-point-loop>