import java.util.Random;

import java.util.Scanner;

public class Stock

{

private String name;

private String symbol;

private double currentPrice;

private double nextPrice;

private double priceChange;

private double priceChangePercentage;

Random rand = new Random();

public Stock(){

name = "Microsoft";

symbol = "MSFT";

currentPrice = 46.87;

nextPrice = 46.87;

}

public Stock(String n, String s, double cp, double np){

name = n;

symbol = s;

currentPrice = cp;

nextPrice = np;

}

public void setName(String name){

this.name = name;

}

public void setSymbol(String symbol){

this.symbol = symbol;

}

public void setCurrentPrice(double currentPrice){

this.currentPrice = currentPrice;

if(currentPrice<0){

currentPrice = 0;

}

}

public void setNextPrice(double nextPrice){

this.nextPrice = nextPrice;

if(nextPrice<0){

nextPrice = 0;

}

}

public String getName(){

return name;

}

public String getSymbol(){

return symbol;

}

public double getCurrentPrice(){

return currentPrice;

}

public double getNextPrice(){

return nextPrice;

}

public void AskUser(String name, String symbol, double currentPrice, double nextPrice){

Scanner input = new Scanner(System.in);

System.out.printf("Name: ");

name = input.nextLine();

System.out.printf("Symbol: ");

symbol = input.nextLine();

System.out.printf("currentPrice: ");

currentPrice = input.nextFloat();

System.out.printf("nextPrice: ");

nextPrice = input.nextFloat();

System.out.println(" ");

}

public double SimulatePrice(double nextPrice){

int y = rand.nextInt(2) + 1;

int z = rand.nextInt(10)+1;

// System.out.printf("RANDOM Z = %d", z);

// System.out.printf("\t ");

double placeholder;

placeholder = nextPrice;

double decimal = (nextPrice \* (z/100.0));

// System.out.printf(" DECIMAL = %.2f", decimal);

// System.out.printf("\t ");

//Percentage

if (y== 1) {

nextPrice = (decimal + nextPrice);

// System.out.printf(" TODAY PRICE: %.2f", nextPrice);

}

if (y== 2) {

nextPrice = (nextPrice - decimal);

// System.out.printf(" TODAY PRICE: %.2f", nextPrice);

}

currentPrice = placeholder;

System.out.printf("\n\n");

return nextPrice;

}

public void Display(String name, String symbol, double currentPrice, double nextPrice, double priceChange, double priceChangePercentage) {

System.out.printf("STOCK \t \t");

System.out.printf("SYMBOL \t \t");

System.out.printf("YESTERDAY\_PRICE \t \t");

System.out.printf("TODAY\_PRICE \t \t");

System.out.printf("PRICE\_MOVEMENT \t \t");

System.out.println("PERCENT CHANGE\t \t");

for (int n = 0; n <= 29; n++) {

System.out.printf(name); //Name

System.out.printf("\t \t");//Name's (extra space)

System.out.printf(symbol); //Symbol

System.out.printf("\t \t \t");//Symbol's (extra space)

System.out.printf("%.2f", currentPrice); //Yesterdays Price

System.out.printf("\t \t \t \t \t"); //Yesterdays Price (extra space)

System.out.printf("%.2f", nextPrice); //Today Price

System.out.printf("\t \t \t \t");

priceChange = (nextPrice - currentPrice);

System.out.printf("%.2f", priceChange); //Today Price

System.out.printf("\t \t \t \t");

priceChangePercentage = (float) (((nextPrice - currentPrice) / currentPrice) \* 100);

System.out.printf("%.2f", priceChangePercentage);

System.out.printf("\t");

this.SimulatePrice(nextPrice);

}

}

}