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// Our program will help Max Profit Exchange Company run their business.
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package investmentportfolio;

import java.util.Scanner;

public class InvestmentPortfolio {

    static Scanner input = new Scanner(System.in);

    static String[] clinetNames = new String[5];
    static String[] clientIDs = new String[5];
    static int[] applShare = new int[5];
    static int[] msftShare = new int[5];
    static int[] googlShare = new int[5];

    // Getting the clients informations from the user
    public static void getClientsInfo() {
        //Prompt the user to enter the last name of each slient, the ID with 5 digits and the share of AAPL, MSFT, and GOOGL.
        System.out.println("For each client, please enter the last name of the client followed by the ID(5 digits),"
            + "the share of AAPL, MSFT, and GOOGL:");
        for (int s = 0; s < 5; s++) {
            clinetNames[s] = input.next();
            clientIDs[s] = input.next();
            applShare[s] = input.nextInt();
            msftShare[s] = input.nextInt();
            googlShare[s] = input.nextInt();
        }
    }

    //Computes and displays the value of share equity of the stocks owned by each client.
    private static void displayEquitySummary(String[] stockSymbolList, float[] currentPrice) {
        System.out.println("\nClients Portfilo Summary : " + "\n-----");
        System.out.printf("%-16s%-16s%-16s%-16s%-16s\n", "Name", "ID",
            stockSymbolList[0], stockSymbolList[1], stockSymbolList[2]);
        for (int s = 0; s < 5; s++) {
            for (int t = 0; t < 3; t++) {
                System.out.printf("%-16s%-16s%-16.2f%-16.2f%-16.2f\n", clinetNames[s], clientIDs[s],
                    applShare[s] * currentPrice[t], msftShare[s] * currentPrice[t + 1], googlShare[s] * currentPrice[t + 2]);
                break;
            }
        }
        System.out.println("-----");
    }

    //This method returns the percentage changed from previous closing prices to current prices with the format (00.00%)
    public static float getChangePercent(float currentPrice, float previousClosingPrice) {
        float changePercent = ((currentPrice - previousClosingPrice) / previousClosingPrice) * 100;
        return changePercent;
    }

    //displays the status of the stocks as a schedule using the printf inside a for-loop
    private static void displayStockStatus(String[] stockNameList, String[] StockSymbolsList, float[] previosClosingPrice, float[] currentPrice) {
        System.out.println("\nStock status in details:");
        System.out.println("-----");
        System.out.printf("%-18s%-18s%-28s%-18s%-18s\n", "stock Name ", "Stock Symbol",
            " previous Closing price ", "Current Price", "Change Percent");
        for (int s = 0; s < 3; s++) {
            System.out.printf("%-22s%-24s%-22.2f%-18.2f%-6.2f%-1s\n", StockSymbolsList[s], stockNameList[s],
                previosClosingPrice[s], currentPrice[s], getChangePercent(currentPrice[s], previosClosingPrice[s]), "%");
        }
        System.out.println("-----");
    }

    // In main method we invoke method getClientsInfo and use a do while and switch to present the menu to the user
    public static void main(String[] args) {

        getClientsInfo();

        String[] stockSymbolsList = {"APPL", "MFST", "GOOGL"};
        String[] stockNameList = {"Apple Inc.", "Microsoft", "Alphabet Inc."};
        float[] previousClosingPrice = {0.40f, 25.99f, 148f};
        float[] currentPrice = {141.52f, 257.22f, 95f};

        int serviceID;
        System.out.println("\nWelcome to Max Stock Exchange ");

        //Prompt the user to select from the menu a number from (0, 1, 2) and each one will do display something, but zero will end the program.
        do {
            System.out.println("\nTo show equity summary, please enter 1.\n"
                + "To show stock portfilo, please enter 2.\n"
                + "To exit the program, please enter 0.");
            serviceID = input.nextInt();
            switch (serviceID) {
                case 1:
                    displayEquitySummary(stockSymbolsList, currentPrice);
                    break;
                case 2:
                    displayStockStatus(stockSymbolsList, stockNameList, previousClosingPrice, currentPrice);
                    break;
                case 0:
                    System.out.println("Message: Program ended.");
                    System.exit(0);
                default:
                    System.out.println("Error: Invalid entry.");
            }
        } while (serviceID != 0);
    }
}
```

