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Enrolment number – 23162121021

Batch 31

Class 3A

**loops statements:-**

* : Write a program that prints the multiplication table for a given number up to 10. Use a for loop to generate the table.
* : Write a program that takes a string as input and uses a for loop to print the string in reverse.
* Write a program that calculates the sum of the first 100 natural numbers using a for loop.
* For Share Market calculate Profit and Loss of share. Ask user to enter  
  buying price and selling price for n share and calculate profit ,loss  
  ,percentage of profit and loss.

Code:

import *java*.*util*.*\**;

*public* *class* prac\_6 {

*public* *static* void *main*(String[] args) {

        Scanner scanner = *new* *Scanner*(System.*in*);

        System.*out*.*println*("Choose an option:");

        System.*out*.*println*("1. Generate Multiplication Table");

        System.*out*.*println*("2. Reverse a String");

        System.*out*.*println*("3. Calculate Sum of first 100 natural numbers");

        System.*out*.*println*("4. Calculate Share Market Profit and Loss");

        System.*out*.*println*("5. Exit");

        System.*out*.*print*("Enter your choice: ");

        int choice = scanner.*nextInt*();

*switch* (choice) {

*case* 1*:*

                // *Multiplication Table*

                System.*out*.*print*("Enter a number to generate its multiplication table: ");

                int num = scanner.*nextInt*();

                System.*out*.*println*("Multiplication table for " + num + " is:");

*for* (int i = 1; i <= 10; i++) {

                    System.*out*.*println*(num + " \* " + i + " = " + (num \* i));

                }

*break*;

*case* 2*:*

                // *Reverse String*

                System.*out*.*print*("Enter a string to reverse: ");

                String str = scanner.*next*();

                System.*out*.*println*("Reversed string is: ");

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

                    System.*out*.*print*(str.*charAt*(i));

                }

*break*;

*case* 3*:*

                // *Sum of first 100 natural numbers*

                int sum = 0;

*for* (int i = 1; i <= 100; i++) {

                    sum += i;

                }

                System.*out*.*println*("Sum of the first 100 natural numbers is: " + sum);

*break*;

*case* 4*:*

                // *Share Market Profit and Loss*

                System.*out*.*print*("Enter the buying price of the share: ");

                float buyingPrice = scanner.*nextFloat*();

                System.*out*.*print*("Enter the selling price of the share: ");

                float sellingPrice = scanner.*nextFloat*();

                System.*out*.*print*("Enter the number of shares: ");

                int numShares = scanner.*nextInt*();

                float totalBuyingPrice = buyingPrice \* numShares;

                float totalSellingPrice = sellingPrice \* numShares;

                float profit = totalSellingPrice - totalBuyingPrice;

                float loss = totalBuyingPrice - totalSellingPrice;

                float profitPercentage = (profit / totalBuyingPrice) \* 100;

                float lossPercentage = (loss / totalBuyingPrice) \* 100;

*if* (profit > 0) {

                    System.*out*.*println*("Profit: " + profit);

                    System.*out*.*println*("Percentage of Profit: " + profitPercentage + "%");

                } *else* *if* (loss > 0) {

                    System.*out*.*println*("Loss: " + loss);

                    System.*out*.*println*("Percentage of Loss: " + lossPercentage + "%");

                } *else* {

                    System.*out*.*println*("No profit or loss.");

                }

*break*;

*case* 5*:*

                System.*out*.*println*("Exiting the program.");

*break*;

*default:*

                System.*out*.*println*("Invalid choice. Please choose a valid option.");

        }

    }

}

Output:

