**Ex No : 1 Simple Java Program**

**Date :**

**Aim:**

To find the minimum of 2 numbers through command line argument, To find sum and product of a given digit, To convert the number of days into months and days, To display Greet message according to marks obtained by the student, To Display the Pyramid Pattern

**1 a. Find Minimum of 2 nos. And get the input through command line argument.**

**Algorithm:**

1. Import the necessary package 'exercise1' and 'java.util.Scanner'.

2. Declare two integer variables 'a' and 'b'.

3. Create a Scanner object 'obj' to read input from the user.

4. Read the first command-line argument (args[0]) and convert it to an integer, storing it in 'a'.

5. Print the value of 'a'.

6. Read the second command-line argument (args[1]) and convert it to an integer, store it in 'b'.

7. Print the value of 'b'.

8. Compare 'a' and 'b': If 'a' is less than 'b', print "A is Minimum". Otherwise, print "B is minimum".

9. Close the Scanner object.

**Program:**

package exercise1;

import java.util.Scanner;

public class MinCommandLineArg {

public static void main(String[] args) {

int a,b;

Scanner obj = new Scanner(System.in);

a = Integer.parseInt(args[0]);

System.out.println("Value of A is : " + a);

b = Integer.parseInt(args[1]);

System.out.println("Value of B is :" + b);

if(a<b){System.out.print("A is Minimum");}

else{System.out.println("B is minimum");}

obj.close();

}

}

**Output:**

Command line argument passed : 10 20

Value of A is : 10

Value of B is : 20

A is Minimum

**1 b. Write a program to find SUM AND PRODUCT of a given Digit**

**Algorithm:**

1. Import the necessary package 'exercise1' and 'java.util.Scanner'.

2. Declare two integer variables 'a' and 'b'.

3. Create a Scanner object 'obj' to read input from the user.

4. Prompt the user to enter the value of 'a'.

5. Read an integer from the user using the Scanner object and store it in 'a'.

6. Prompt the user to enter the value of 'b'.

7. Read an integer from the user using the Scanner object and store it in 'b'.

8. Calculate the sum of 'a' and 'b' and print it.

9. Calculate the product of 'a' and 'b' and print it.

10. Close the Scanner object.

**Program:**

package exercise1;

import java.util.Scanner;

public class SumProduct {

public static void main(String[] args) {

int a,b;

Scanner obj = new Scanner(System.in);

System.out.print("Enter the value of a : ");

a = obj.nextInt();

System.out.print("Enter the value of b : ");

b = obj.nextInt();

System.out.println("Sum of the values : " + (a+b));

System.out.println("Product of the values : " + (a\*b));

}

}

**Output:**

Enter the value of a : 10

Enter the value of b : 20

Sum of the values : 30

Product of the values : 200

**1 c. Write a program to convert given no. of days into months and days.**

**(Assume that each month is of 30 days)**

**Example:**

**Input - 69**

**Output - 69 days = 2 Month and 9 days**

**Algorithm:**

1. Import the necessary package 'exercise1' and 'java.util.Scanner'.

2. Declare an integer variable 'days'.

3. Create a Scanner object 'obj' to read input from the user.

4. Prompt the user to enter the number of days.

5. Read an integer from the user using the Scanner object and store it in 'days'.

6. Declare two integer variables 'months' and 'RDays' to store the calculated values.

7. Calculate the number of months by dividing 'days' by 30 and store it in 'months'.

8. Print the calculated number of months.

9. Calculate the remaining days by subtracting the total days represented by 'months' from 'days', and store it in 'RDays'.

10. Print the calculated number of remaining days.

11. Close the Scanner object.

**Program:**

package exercise1;

import java.util.Scanner;

public class DaysToMonths {

public static void main(String[] args) {

int days;

Scanner obj = new Scanner(System.in);

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

days = obj.nextInt();

int months,RDays;

months = days / 30;

System.out.print( months +" Months and");

RDays = days - (months\*30);

System.out.println( RDays +" Days");

}

}

**Output:**

Enter the number of Days : 69

2 Months and 9 Days

**1 d. Write a program to display a greet message according to Marks obtained by student using switch case.Condition: 10 (Excellent)**

**9-8 (very good)**

**7-6 (Good)**

**5-3(poor)**

**2-0(very poor)**

**Algorithm:**

1. Import the necessary package 'exercise1' and 'java.util.Scanner'.

2. Declare an integer variable 'mark'.

3. Create a Scanner object 'obj' to read input from the user.

4. Prompt the user to enter the mark of the student (1 – 10).

5. Read an integer from the user using the Scanner object and store it in 'mark'.

6. Use conditional statements to evaluate the value of 'mark' and determine the student's performance:

a. If 'mark' is equal to 10, print "Excellent".

b. Else if 'mark' is between 8 and 9 (inclusive), print "Very Good".

c. Else if 'mark' is between 6 and 7 (inclusive), print "Good".

d. Else if 'mark' is between 3 and 5 (inclusive), print "Poor".

e. Else if 'mark' is between 0 and 2 (inclusive), print "Very Poor".

f. If none of the above conditions are met, print "Invalid Entry".

7. Close the Scanner object**.**

**Program:**

package exercise1;

import java.util.Scanner;

public class SwitchCase {

public static void main(String[] args) {

int mark;

Scanner obj = new Scanner(System.in);

System.out.print("Enter the Mark of the Student ( 1 – 10 ) : ");

mark = obj.nextInt();

if(mark==10){System.out.println("Excellent");}

else if ((mark<=9)&&(mark>=8)){System.out.println("Very Good");}

else if ((mark<=7)&&(mark>=6)){System.out.println("Good");}

else if ((mark<=5)&&(mark>=3)){System.out.println("Poor");}

else if ((mark<=2)&&(mark>=0)){System.out.println("Very Poor");}

else{System.out.print("Invalud Entry");}

}

}

**Output:**

Case I:

Enter the Mark of the Student ( 1 – 10 ) : 10

Excellent

Case II:

Enter the Mark of the Student ( 1 – 10 ) : 4

Poor

**1 e.**

****

**Algorithm:**

1. Import the necessary package 'exercise1' and 'java.util.Scanner'.

2. Declare three integer variables 'i', 'j', and 'n'.

3. Create a Scanner object 'obj' to read input from the user.

4. Prompt the user to enter the value of 'n'.

5. Read an integer from the user using the Scanner object and store it in 'n'.

6. Use a nested loop to print the pattern:

a. Outer loop runs from 0 to 'n-1' (inclusive):

- Initialize 'i' to 0.

- Continue loop while 'i' is less than 'n'.

- Increment 'i' after each iteration.

b. Inner loop 1 prints spaces before asterisks:

- Initialize 'j' to '2 \* (n - i)'.

- Continue loop while 'j' is greater than or equal to 0.

- Decrement 'j' after each iteration.

- Print a space.

c. Inner loop 2 prints asterisks:

- Initialize 'j' to 0.

- Continue loop while 'j' is less than or equal to 'i'.

- Increment 'j' after each iteration.

- Print an asterisk followed by a space.

d. Print a newline to move to the next row after printing spaces and asterisks.

7. Close the Scanner object.

**Program:**

package exercise1;

import java.util.Scanner;

public class Pattern {

public static void main(String[] args) {

int i,j,n;

Scanner obj = new Scanner(System.in);

System.out.print("Enter the value of n : ");

n = obj.nextInt();

for(i=0; i<n; i++)

{

for(j=2\*(n-i); j>=0; j--) { System.out.print(" "); }

for(j=0; j<=i; j++) { System.out.print("\* "); }

System.out.println(){

} }

**Output:**

Enter the value of n: 5

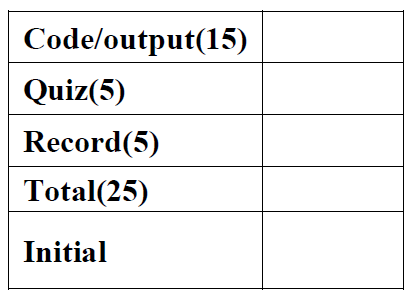
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**Result :**

Thus the program for finding the minimum of 2 numbers through command line argument, finding sum and product of a given digit, converting the number of days into months and days, displaying Greet message according to marks obtained by the student, and Displaying the Pyramid Pattern have been executed successfully and output is obtained using JAVA programming language