SCIENTIFIC CALCULATOR PROJECT

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```
import java.io.*;

class calculator

{

public void menu()throws IOException

{

BufferedReader br=new BufferedReader(new InputStreamReader(System.in));


System.out.println("1. Arithmatic Calculation");

System.out.println("2. Trigonomatric Calculation");

System.out.println("3. Other Calculation");


System.out.println("Enter Your choice");
int ch=Integer.parseInt(br.readLine());


switch(ch)

{

case 1: System.out.println("1. Addition");

System.out.println("2. Subtraction");

System.out.println("3. Division");

System.out.println("4. Multiplication");

System.out.println("5. Modulous");

System.out.println("Enter your choice(1 to 5");
int choice=Integer.parseInt(br.readLine());

System.out.println("Enter the first number");
int num1=Integer.parseInt(br.readLine());

System.out.println("Enter the 2nd number");
int num2=Integer.parseInt(br.readLine());

switch(choice)

{
case 1: System.out.println("The result of Addition= "+(num1+num2));
break;

case 2:
if(num1>num2)
System.out.println("The subtraction result= "+(num1-num2));
else
System.out.println("The subtraction result= "+(num2-num1));
break;

case 3:
double res=0.0;
if(num2!=0)
{
res=(double)num1/num2;
System.out.println("Quotient = "+res);
}
else
{
System.out.println("Dividor cannot be zero, division not possible");
}
```

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break;

case 4: System.out.println("Multiplication result = "+(num1*num2));
break;

case 5:
if(num2!=0)
{
res=num1%num2;
System.out.println("Remainder = "+res);
}
else
{
System.out.println("Dividor cannot be zero, division not possible");
}
break;
default :

System.out.println("Wrong choice...going to main menu again\n\n\n");
menu(); //calling menu function
}//end of inner switch
break;
case 2:
System.out.println("1. Sin");

System.out.println("2. Cosine");

System.out.println("3. Tangent");

System.out.println("4. Logarithm");

System.out.println("Enter your choice(1 to 4");
choice=Integer.parseInt(br.readLine());

System.out.println("Enter the number");

double num=Double.parseDouble(br.readLine());

switch(choice)
{

case 1:
double res=Math.sin(num);
System.out.println("The result of sin = "+res);
break;

case 2:
res=Math.cos(num);
System.out.println("The result of cosine = "+res);
break;


case 3: res=Math.tan(num);
System.out.println("The result = "+res);
break;

case 4: res=Math.log(num);
System.out.println("The result = "+res);
break;

default :
System.out.println("Wrong choice...going to main menu again\n\n\n");
menu(); //calling menu function
}//end of inner switch
break;
case 3:
System.out.println("1. Maximum number");

System.out.println("2. Minimum number");

System.out.println("3. Square Root");

System.out.println("4. Power ");

System.out.println("5 Exponent");

System.out.println("6. Absolute Value");
```

```
System.out.println("Enter your choice(1 to 6");
choice=Integer.parseInt(br.readLine());

System.out.println("Enter the first number");

double n1=Double.parseDouble(br.readLine());


System.out.println("Enter the 2nd number");

double n2=Double.parseDouble(br.readLine());

switch(choice)
{

case 1:
double res=Math.max(n1,n2);
System.out.println("The maximum number is = "+res);
break;

case 2:
res=Math.min(n1,n2);
System.out.println("The minimum number is = "+res);
break;


case 3: double res1=Math.sqrt(n1);
System.out.println("The square root of first number = "+res1);
double res2=Math.sqrt(n2);
System.out.println("The square root of 2nd number = "+res2);
break;

case 4: res1=Math.pow(n1,n2);

System.out.println("The power of 2nd number raised to first number = "+res1);
break;

case 5: res1=Math.exp(n1);
System.out.println("The exponent of first number = "+res1);
res2=Math.exp(n2);
System.out.println("The exponent of 2nd number = "+res2);
break;

case 6: res1=Math.abs(n1);
System.out.println("The absolute value of first number = "+res1);
res2=Math.abs(n2);
System.out.println("The absolute value of 2nd number = "+res2);
break;
default :
System.out.println("Wrong choice...going to main menu again\n\n\n");
menu(); //calling menu function
}//end of inner switch
break;
default:
System.out.println("Wrong choice...there is no other calculation menu in this choice");
System.out.println("Program terminated...");
}//end of outer switch
}//end of menu()
}//end of class
```