

expressionCalc 1.1.1 Read Me

Use it, you feel easy...

There are two editions in this version. All these editions are distributed under the terms of the GNU General Public License version 2 as published by the Free Software Foundation. See distributing terms of expressionCalc for more details. I, the sender, certify that this declaration is correct and item does not contain any dangerous article or articles prohibited by legislation or by postal or customers. Author Amith Chinthaka amscata@gmail.com

I have a request, please read the [bio file](#) of expressionCalc project.

JAR Edition

This is a **console edition** of expressionCalc 1.1.1. Both of these editions have same capabilities to solve Mathematical expressions. To run this application you have to install JDK

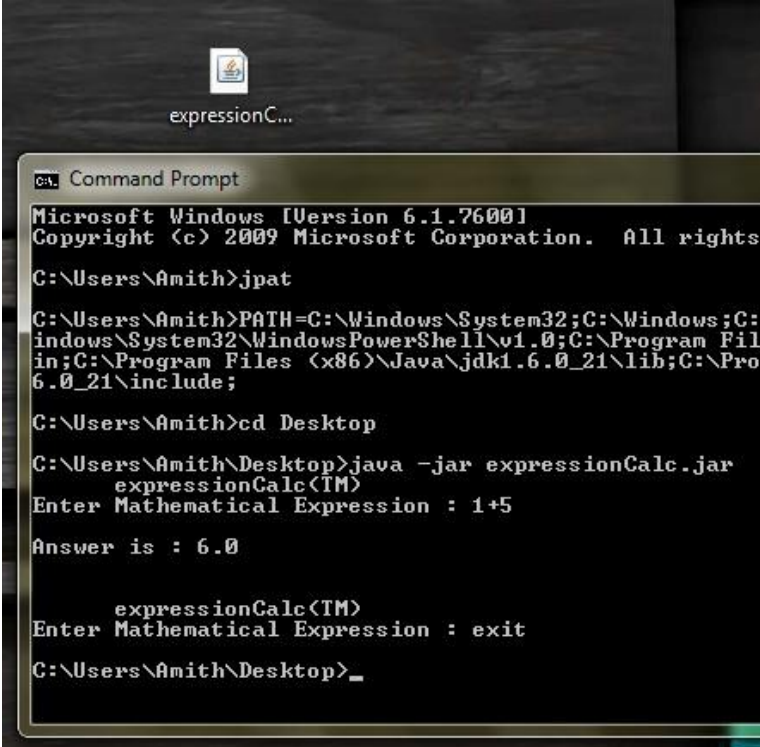
Give commands as shown as this diagram

To Execute

```
java -jar expressionCalc.jar
```

To Halt

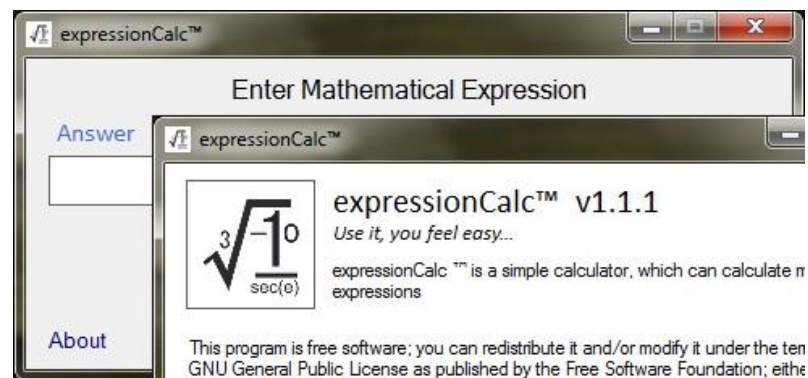
```
exit
```



```
C:\Users\Amith>jpat
C:\Users\Amith>PATH=C:\Windows\System32;C:\Windows;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Program Files\Java\jdk1.6.0_21\bin;C:\Program Files\Java\jdk1.6.0_21\include;
C:\Users\Amith>cd Desktop
C:\Users\Amith\Desktop>java -jar expressionCalc.jar
expressionCalc(TM)
Enter Mathematical Expression : 1+5
Answer is : 6.0
expressionCalc(TM)
Enter Mathematical Expression : exit
C:\Users\Amith\Desktop>
```

Windows Edition

This is the **GUI edition** of expressionCalc. But this edition can be run only Windows OS platforms. Use it as the way of using normal application in Windows



Functions

1. $\log(\text{base}, \text{no})$ – e.g.: $\log(2, 16)$
2. $\lg(\text{no})$ – e.g.: $\lg(100)$: returns logarithm of any positive number in base 10
3. $\ln(\text{no})$ – e.g.: $\ln(2.71359)$: returns logarithm of any positive number in base e
4. $\text{rad}(\text{angle})$ – e.g.: $\text{rad}(180)$: returns radian value of any angle
5. $\text{ang}(\text{radian})$ – e.g.: $\text{ang}(\pi)$: returns angle of any radian
6. $\sin(\text{angle in radians})$ – e.g.: $\sin(3.14)$
7. $\cos(\text{angle in radians})$ – e.g.: $\cos(3.14)$
8. $\tan(\text{angle in radians})$ – e.g.: $\tan(\text{rad}(45))$
9. $\sec(\text{angle in radians})$ – e.g.: $\sec(\text{rad}(180))$
10. $\text{cosec}(\text{angle in radians})$ – e.g.: $\text{cosec}(3.14)$
11. $\cot(\text{angle in radians})$ – e.g.: $\cot(3.14)$
12. $\text{asin}(\sin \text{ value})$ – e.g.: $\text{asin}(0.7071)$: returns arc angle in radian of any sin value
13. $\text{acos}(\cos \text{ value})$ – e.g.: $\text{acos}(0.8391)$: returns arc angle in radian of any cos value
14. $\text{atan}(\tan \text{ value})$ – e.g.: $\text{atan}(1.2095)$: returns arc angle in radian of any tan value
15. $\text{asec}(\sec \text{ value})$ – e.g.: $\text{asec}(1.4142)$: returns arc angle in radian of any sec value
16. $\text{acosec}(\text{cosec value})$ – e.g.: $\text{acosec}(1.01)$: returns arc angle in radian of any cosec value
17. $\text{acot}(\cot \text{ value})$ – e.g.: $\text{acot}(1.0)$: returns arc angle in radian of any cot value
18. $\text{sqrt}(\text{no})$ – e.g.: $\text{sqrt}(16)$: returns square root of any positive number
19. $\text{cbrt}(\text{no})$ – e.g.: $\text{cbrt}(-8)$: returns cubic root of any number
20. $\text{abs}(\text{no})$ – e.g.: $\text{abs}(8 * (-5) + \lg(12))$: returns absolute value of any number

Operators

1. $()$: Brackets
2. $*$: Multiplication
3. $/$: Division
4. $+$: Addition
5. $-$: Subtraction
6. $\%$: Modules
7. $^$: Power
8. $!$: Factorial – e.g.: $(1+2+5)!$ Or $10!$
9. nPr : Number of Permutations – e.g.: $5P3$ or $(1+3)P(1+1)$
10. nCr : Number of Combinations – e.g.: $10C5$ or $(1*5+2)C(\lg(100))$

Values

1. e – The base of natural logarithms ($e = 2.71828182845905$)
2. π – 180 degrees in angle ($\pi = 3.14159265358979$)
3. $.$ – Decimal point

Problems which can be happened while calculating

1. You can give expressions in easy way but keep in your mind “more and more short ways makes troubles”
2. This application depends on BODMAS theorem and GIGO concept. Therefore you input a garbage, calculator will return a garbage
3. Some of the parts in this application identified malformed expressions and inform about to the user. But some malformed expressions cannot be informed and managed. Therefore sometimes the answers which produced by calculator can be wrong
4. But you always gave the expressions in standard way which other calculators are followed, definitely you can get the correct answers

Please be kind enough to inform me about bugs. I am sure; this calculator will solve lots of your Mathematical problems. Use it, you feel easy...

Documented by the author (Amith Chinthaka amscata@gmail.com)