ArithmeticEvaluationEngine package

Class **ArithemticEvaluationEngine**

- public static Number **calculate** (String Equation)
- public **ArithmeticEvaluationEngine** (String Equation, Class DataType) throws Exception
- public Number **Value** ()
- public void **setVariables** (String s, Number n)
- public ArrayList<String> **getVariables** ()

Static Function

➕ public static **calculate** (String Equation)

```
Double value;
value =
ArithmeticEvaluationEngine.calculate("10^3*(2-5/1)+[12.45%1+2]");
```

Creating Object and using it's functionalities

➕ public **ArithmeticEvaluationEngine** (String Equation, Class DataType)

```
ArithmeticEvaluationEngine aee =
        new ArithmeticEvaluationEngine("a+2*b-10",Double.class);
```

Second Parameter **Class DataType** supports following values:

- Integer.class
- Double.class
- Float.class
- Short.class
- Byte.class

+ public void **setVariables** (String s, Number n)

```
aee.setVariable("a", 5);
aee.setVariable("b",10);
```

+ public ArrayList<String> **getVariables** ()

```
ArrayList<String> vars;
vars = aee.getVariables()

---output-------
[a,b]
---------------
```

java.util.ArrayList needs to be imported to use this function.

+ public Number **Value** ()

```
Double ans;
Ans = (Double) aee.Value();
Systen.out.println(ans);

---output-------
15
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```

Test Package directly

Open terminal/command prompt and enter following command:

```
java ArithmeticEvaluationEngine.ArithmeticEvaluationEngine
```

Program will ask to enter expression.

Enter it and get it evaluation.

Variables are not supported here.

To run with debug/trace enter above command with `-trace` as argument.