Practice Project 1

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# practice-project-1

Practive Project – Demonstrates usage of CMake, Doxygen, git and Travis CI. Also, serves as a guide for C++ projects with emphasis on modern C++.

### **Sublime Useful Packages**

Download sublime text from their website, it will be a .deb. Then run in terminal using subl.

#### **Preparing the Documentation**

```
mkdir docs
cd docs
doxygen -g
doxygen Doxyfile
# Making pdf documentation from LaTeX files
cd latex
make
```

I have also included the pdf documentation in the root directory for reference and also I am not cleaning the build files as I assume Doxygen might not be installed on the evaluaters systems. If you feel comfortable in the html documentation, open this webpage \$PROJECT\_ROOT/docs/html/index.html.

Also, I kept the flag ON to build documentation with static members and all the member functions and variable for the sake of clarity.

#### Packages to install

- DoxyDoxygen Documentation
- Anaconda Python Autocomplete etc.
- EasyClangComplete C++ Autocomplete.
- GitHub Flavored Markdown Preview Markdown Preview

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# Namespace Index

2.1	Namespace	Lint
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Here is a list of all documented namespaces with brief descriptions:	
pp	7

Namespace Index

# **Class Index**

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- 5			366	1 161	Г

Here are the classes,	, structs, unions	and interfaces v	with brief des	scriptions:	

pp::Calculator< T >																				
Class for calculator							 											 		ç

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# **Namespace Documentation**

# 4.1 pp Namespace Reference

## Classes

• class Calculator

Class for calculator.

# 4.1.1 Detailed Description

pp is practice-project-1 workspace.

# **Class Documentation**

# 5.1 pp::Calculator < T > Class Template Reference

Class for calculator.

```
#include <calculator.h>
```

### **Public Member Functions**

• Calculator ()

Constructor.

• T add (T a, T b)

Perform additions.

• T subtract (T a, T b)

Performs substraction.

• T mul (T a, T b)

Performs multiplication.

• T divide (T a, T b)

Performs division.

## 5.1.1 Detailed Description

```
\label{template} \begin{tabular}{ll} template < typename T > \\ class pp:: Calculator < T > \\ \end{tabular}
```

Class for calculator.

**Template Parameters** 

T | Template Class.

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# 5.1.2 Constructor & Destructor Documentation

#### 5.1.2.1 Calculator()

```
template<typename T >
pp::Calculator< T >::Calculator ( )
```

Constructor.

**Template Parameters** 

```
T template class.
```

#### 5.1.3 Member Function Documentation

#### 5.1.3.1 add()

Perform additions.

#### **Parameters**

in	а	parameter⊷ _1
in	b	parameter←
		_2

### **Template Parameters**

```
T template class.
```

#### Returns

 $\quad \text{sum of a and } b.$ 

#### 5.1.3.2 divide()

Performs division.

#### **Parameters**

in	а	parameter← _1
in	b	parameter← _2

### **Template Parameters**

```
T template class.
```

#### Returns

division of a and b.

### 5.1.3.3 mul()

Performs multiplication.

### **Parameters**

in	а	parameter← _1
in	b	parameter⊷ _2

### **Template Parameters**

```
T template class.
```

#### Returns

multiplication of a and b.

## 5.1.3.4 subtract()

Performs substraction.

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### **Parameters**

in	а	parameter← _1
in	b	parameter← _2

# **Template Parameters**

T	template class.
---	-----------------

#### Returns

multiplication of a and b.

The documentation for this class was generated from the following files:

- · calculator.h
- calculator.cpp

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