

Expression Calculator

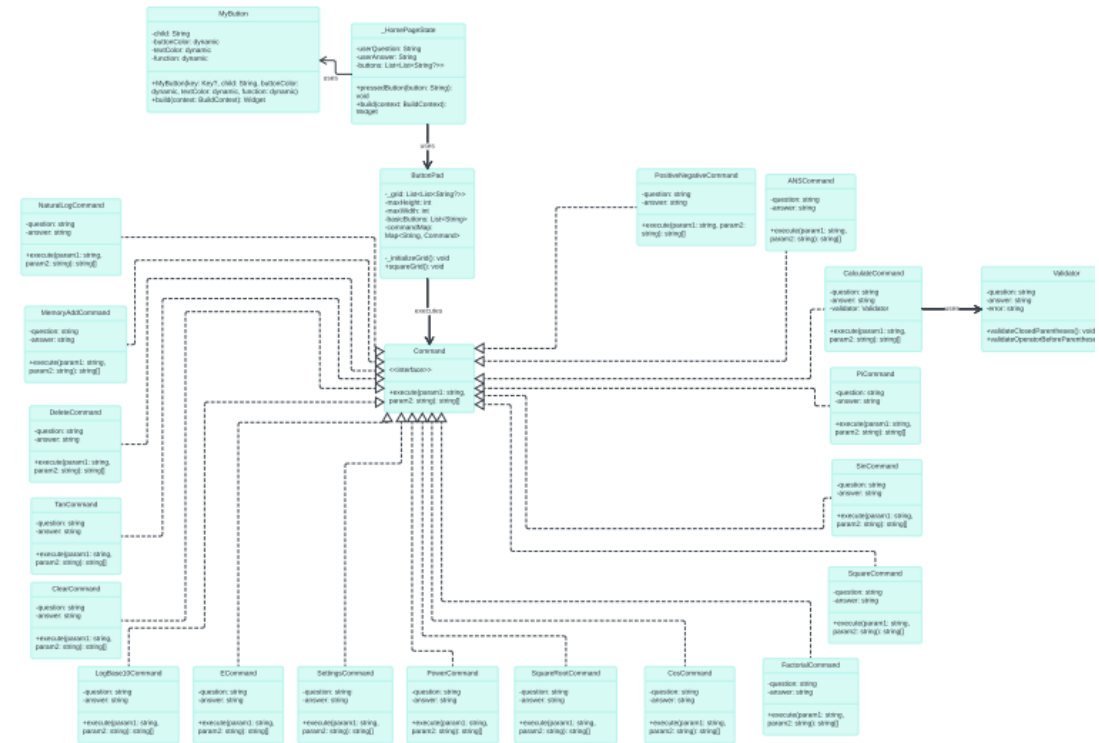
Team Leader: Colevy Collins

Team Members:

Jacob Nelson, Pam Pepper, Ben Molloy, Logan Poe, Douglas Broughton,
Quay Robinson

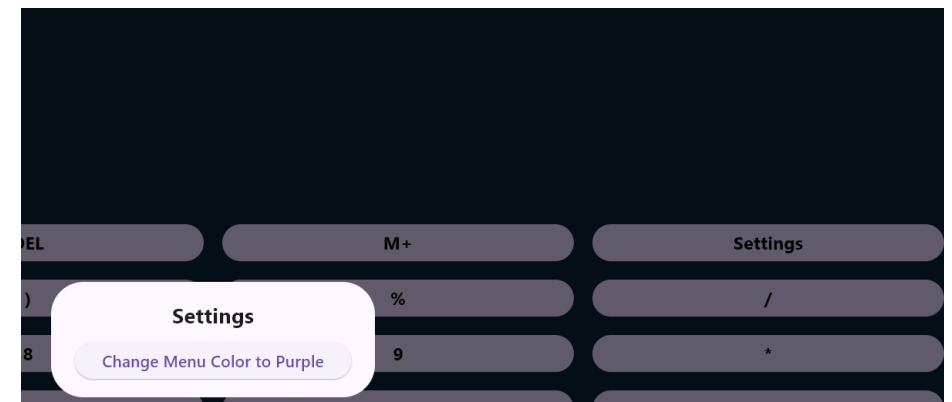
Project Design

- Main function: manages the UI and tracks the user question and answer. Uses a custom button class.
- The Main class uses the button pad class to match buttons with functions organization the UI.
- The button pad class uses the command class to execute functions which are separated into their own class.



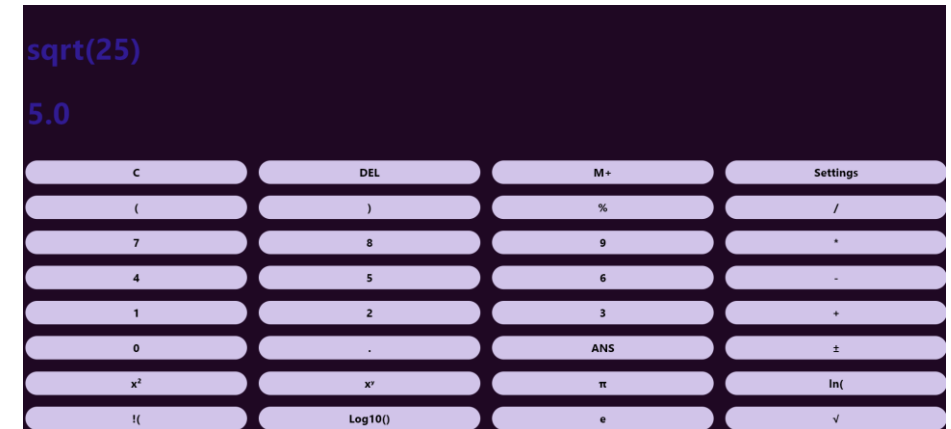
Features Presentation: Jacob Nelson

- Test Coverage:
 - Trigonometric Functions:
6/6 test completed
 - Settings Menu button: 6/6
test completed



Features Presentation: Pam Pepper

- Test Coverage:
 - Add to Memory Button :
5/5 test completed
 - Square Root Button ($\sqrt{}$) :
5/5 test completed



Features Presentation: Ben Molloy

- Test Coverage:
 - Log Base 10 Button :
7/7 test completed
 - Factorial Button (!) :
6/6 test completed

$\text{Log}_{10}(10) + !(5)$

121.0

C

DEL

(

)

7

8

4

5

1

2

0

.

x^2

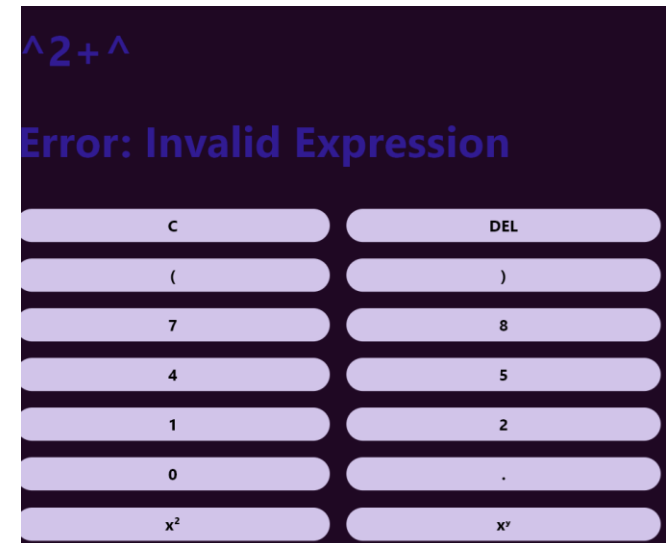
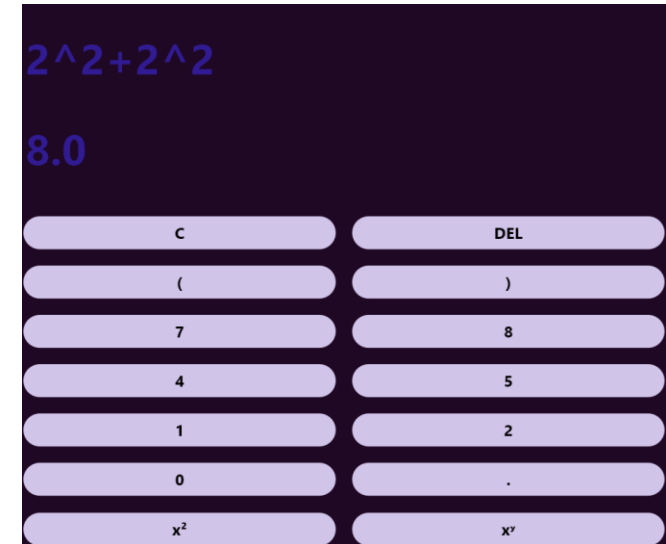
x^y

!(

Log10()

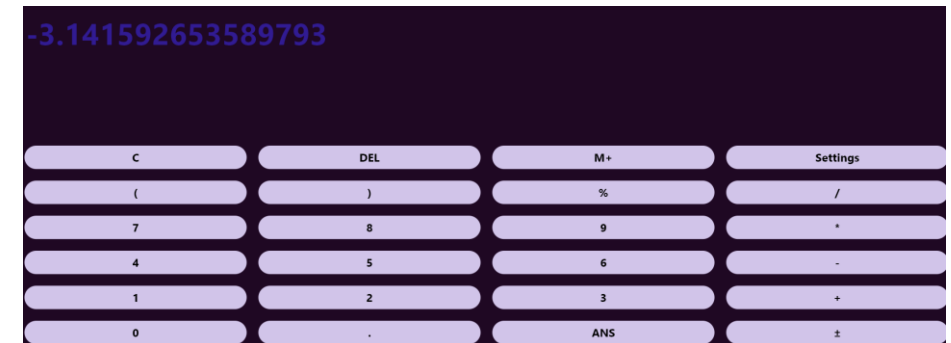
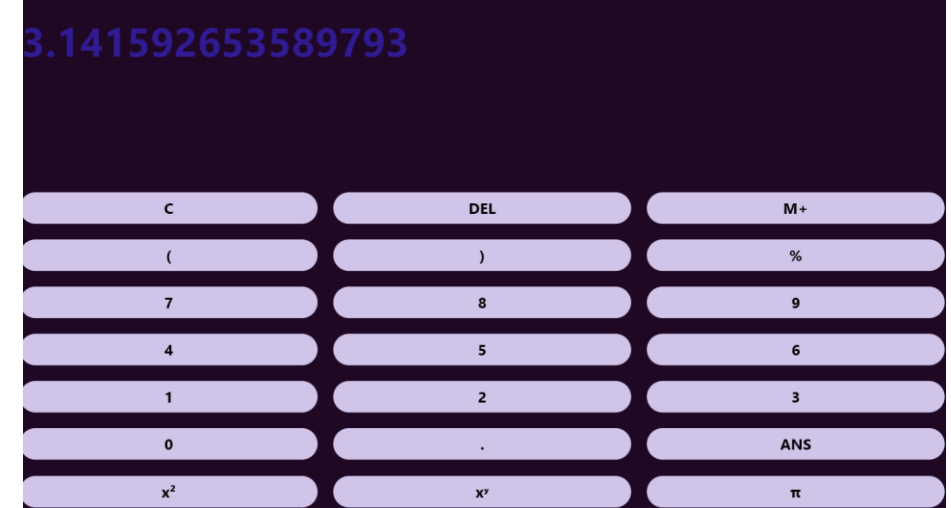
Features Presentation: Logan Poe

- Test Coverage:
 - Square Button (x^2) :
5/5 test completed
 - Power Button (x^y) :
5/5 test completed



Features Presentation: Douglas Broughton

- Test Coverage:
 - Positive/Negative Button (\pm) : 5/5 test completed
 - Pi Button (π) : 5/5 test completed



Features Presentation: Quay Robinson

- Test Coverage:
 - Logarithmic Function Button : 6/6 test completed
 - e Function Button : 6/6 test completed



Project testing

- Acceptance and regression tests: 147/147 test complete
 - Integration tests: 53/53 test complete

```
✓ Built build\windows\x64\runner\Debug\calculator_app.exe
01:15 +53: All tests passed!
PS C:\Users\cacol\OneDrive\Documents\ASE 456\Team_project\calculator_app> flutter test
00:13 +94: All tests passed!
PS C:\Users\cacol\OneDrive\Documents\ASE 456\Team_project\calculator_app> 
```

Lessons Learned

- **Design and Code Smell Review:** These practices significantly enhance the ease of code implementation.
- **Frameworks and Dependency Injection:** We now recognize their importance in improving efficiency for cross-platform development.
- **Dart and Flutter:** Both proved to be effective tools for cross-platform project development.
- **Seeking Help:** We learned that it is perfectly acceptable to seek assistance when faced with challenges or confusion.
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Start vs End Progress

- Initial lines of code: 187
- Final lines of code: 1949