**Experiment Report - 27 - test2\_codehistory**

1. **Summary Table of Errors Found**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Error ID | Line Number | Error Type | Self-Detected? | Peer 1 Found? | Peer 2 Found? |
| E01 | line 18 | Syntax | √ | √ | × |
| E02 | line 30 | Syntax | √ | × | √ |
| E03 | line 37 | Logic | √ | √ | √ |

Additional Errors Found by Self: 0

Self-Review Detection Rate: 100%

Peer 1 Detection Rate: 67%

Peer 2 Detection Rate: 67%

1. **Source Code**
2. #include "codehistory.h"
3. #include "historylinenumberarea.h"
4. #include <QPainter>
5. #include <QTextBlock>
6. CodeHistory::CodeHistory(QWidget \*parent)
7. : QPlainTextEdit(parent),
8. lineNumberArea(new HistoryLineNumberArea(this)), // 初始化行号区域
9. highlighter(new SyntaxHighlighter(this->document())) // 初始化语法高亮
10. {
11. // 设置编辑器的初始宽度和高亮当前行的功能
12. connect(this, &QPlainTextEdit::blockCountChanged, this, &CodeHistory::updateLineNumberAreaWidth);
13. connect(this, &QPlainTextEdit::updateRequest, this, &CodeHistory::updateLineNumberArea);
14. connect(this, &QPlainTextEdit::cursorPositionChanged, this, &CodeHistory::highlightCurrentLine);
15. updateLineNumberAreaWidth(0);
16. highlightCurrentLine();
17. setEditorFont("Courier"); // 默认字体设置
18. }
19. void CodeHistory::setEditorFont(const QString &fontFamily, int fontSize)
20. {
21. QFont font(fontFamily, fontSize);
22. this->setFont(font);
23. }
24. void CodeHistory::paintEvent(QPaintEvent \*event)
25. {
26. QPlainTextEdit::paintEvent(event);
27. lineNumberAreaPaintEvent();
28. }
29. int CodeHistory::lineNumberAreaWidth()
30. {
31. int digits = 1;
32. int max = qMax(1, blockCount());
33. while (max > 10) {
34. max /= 10;
35. ++digits;
36. }
37. int space = 3 + fontMetrics().horizontalAdvance(QLatin1Char('9')) \* digits;
38. return space;
39. }