```
C:\projects\CS4100_Compiler_Design\KyleBushCompiler\KyleBushCompiler\SyntaxAnalyzer.cs
```

```
1
```

```
530
                else if (Scanner.TokenCode == FOR)
                {
531
532
                    GetNextToken();
533
                    right = Variable();
534
535
                    if (Scanner.TokenCode == ASSIGN)
536
537
                        GetNextToken();
538
                        left = SimpleExpression();
                        Quads.AddQuad(MOV, left, -1, right); // Save the value of the expression in the variable.
539
540
                         saveTop = Quads.NextQuad();
                        if (Scanner.TokenCode == TO)
541
542
543
                            GetNextToken();
                            limit = SimpleExpression();
544
545
                            temp = GenSymbol();
546
                            Quads.AddQuad(SUB, right, limit, temp);
547
                             branchQuad = Quads.NextQuad();
548
                            Quads.AddQuad(BP, temp, -1, 0);
549
                            if (Scanner.TokenCode == D0)
550
551
552
                                GetNextToken();
553
                                Statement();
554
555
                                 Quads.AddQuad(ADD, right, Plus1Index, right);
556
                                Quads.AddQuad(BR, -1, -1, saveTop);
557
                                 Quads.SetQuadOp3(branchQuad, Quads.NextQuad());
                            }
558
                            else
559
                                UnexpectedTokenError("DO");
560
                        }
561
562
                        else
                            UnexpectedTokenError("TO");
563
                    }
564
                    else
565
                        UnexpectedTokenError("ASSIGN");
566
                }
567
```