OUTLINE OF THE FINAL REPORT

1. **Phases of a compiler**

* Tasks of a compiler
* Overview of phases of a compiler

1. **Lexical analysis**

* Tasks of a scanner
* Data structure
* Implementation(description of important funtions like readIdentkeyword, skipComment…)

1. **Syntax analysis**

* Role of a parser.
* Syntax directive approach
* Recursive descent method
* KPL Grammar
* Implementation(description of important funtions like compileStatement, compileExpression, CompileTerm2, compileFactor together with corresponding set of syntax rules)

1. **Semantic analysis**

* ***Symbol Table***
  + Attributes of objects
  + Scope
  + Global Object list
* ***Scope management***
  + Check if an identifier is fresh: Demonstration of usage of checkFreshIdent in a declaration
  + Check if an identifier is declared before usage (Description of checkDeclaredLvaueIdent, checkDeclaredIdent,..)
* ***Type checking***
* Type checking in statements
* Type checking in expression
* Check number of dimension in an array
* Check list of arguments
* Check call-by-reference parameters