C Programming Language

1. Introduction
    - 1.1 History of C
    - 1.2 Characteristic of C
    - 1.3 Structure of C program

2. Variable and Data Types
    - 2.1 Constant and Variables
    - 2.2 Variable declaration
    - 2.3 Variable Types
    - 2.4 Simple I/O Functions
    - 2.5 Operators

3. Loops and Decisions
    - 3.1 Introduction
    - 3.2 For Loop
    - 3.3 While Loop
    - 3.4 Do while Loop
    - 3.5 Nested Loop
    - 3.6 Case, break and continue statement
    - 3.7 The if , if else, else-if and switch statement

4. Functions
    - 4.1 Introduction
    - 4.2 Returning a value from a function
    - 4.3 Sending a value to a function
    - 4.4 Arguments
    - 4.5 External Variables
    - 4.6 Preprocessor directives
    - 4.7 C libraries
    - 4.8 Macros
    - 4.9 Header files and prototyping

5. Array and Strings
    - 5.1 Introduction to Arrays
    - 5.2 Initializing Arrays
    - 5.3 Multidimensional Array
    - 5.4 String
    - 5.5 Functions related to the strings
6. Pointers
    - 6.1 pointers definition
    - 6.2 pointers and arrays
    - 6.3 Returning multiple values from function using pointers

- 6.3 Pointers Arithmetic
- 6.4 Pointer and Strings
- 6.5 Double Indirection
- 6.6 Pointer to Arrays

7. Structure and Unions
   - 7.1 Definition of Structure
   - 7.2 Nested type Structure
   - 7.3 Arrays of Structure
   - 7.4 Structure and Pointers
   - 7.5 Linked List
   - 7.6 Union and application of it.
8. File I/O
   - 8.1 Stream
     - 8.1.1 Text Stream
     - 8.1.2 Binary Stream
   - 8.2 File Pointers
   - 8.2.1 Open File
     - 8.2.2 File Open Mode
     - 8.2.3 Closing File
   - 8.3 fgets, fputs
   - 8.4 fread, fwrite
   - 8.5 Random Access I/O (fseek)
   - 8.6 fprintf/ fscanf

9. Development of Project