Dummy PDF file

Destructor: Special Characteristics, Declaration and definition of destructor;
Inheritance (Extending Classes): Concept of Inheritance, Base Class, Derived Class, Defining derived classes, protected visibility mode; Single level inheritance, Multilevel inheritance and Multiple inheritance, Privately derived, Publicly derived and Protectedly derived class, accessibility of members from objects and within derived class (es);
Data File Handling:
Need for a data file, Types of data files – Text file and Binary file;
Basic file operations on text file: **Creating/Writing text into file, Reading and Manipulation of text from an already existing text File (accessing sequentially);**
Binary File: Creation of file, Writing data into file, Searching for required data from file,
Appending data to a file, Insertion of data in sorted file, Deletion of data from file, Modification of data in a file;
Implementation of above mentioned data file handling in C++;
Components of C++ to be used with file handling:
Header file: fstream.h; ifstream, ofstream, fstream classes;
Opening a text file in **in**, **out**, and **app** modes;
Using cascading operators for writing text to the file and reading text from the file; **open()**, **get()**, **put()**, **getline()** and **close()** functions; Detecting end-of-file (with or without using **eof()** function);
Opening a binary file using **in**, **out**, and **app** modes;
open(), **read()**, **write()** and **close()** functions; Detecting end-of-file (with or without using **eof()** function); **tellg(), tellp(), seekg(), seekp()** functions
Pointers:
Declaration and Initialization of Pointers; Dynamic memory allocation/deallocation operators: **new, delete;** Pointers and Arrays: Array of Pointers, Pointer to an array
(1 dimensional array), Function returning a pointer, Reference variables and use of alias; Function call by reference.
Pointer to structures: Deference operator: *, ->; self referencial structures;

UNIT 2: DATA STRUCTURES

Arrays:
One and two Dimensional arrays: Sequential allocation and address calculation;
One dimensional array: Traversal, Searching (Linear, Binary Search), Insertion of an element in an array, deletion of an element from an array, Sorting (Insertion, Selection, Bubble sort), concatenation of two linear arrays, merging of two sorted arrays;
Two-dimensional arrays: Traversal, Finding sum/difference of two NxM arrays containing
numeric values, Interchanging Row and Column elements in a two dimensional array;
Stack (Array and Linked implementation of Stack):
Operations on Stack (PUSH and POP) and its Implementation in C++, Converting expressions from INFIX to POSTFIX notation and evaluation of Postfix expression;
Queue: (Circular Array and Linked Implementation):
Operations on Queue (Insert and Delete) and its Implementation in C++.

UNIT 3: DATABASES AND SQL

Database Concepts:
Relational data model: Concept of domain, tuple, relation, key, primary key, alternate key,
Candidate key;

Relational algebra: Selection, Projection, Union and Cartesian product;