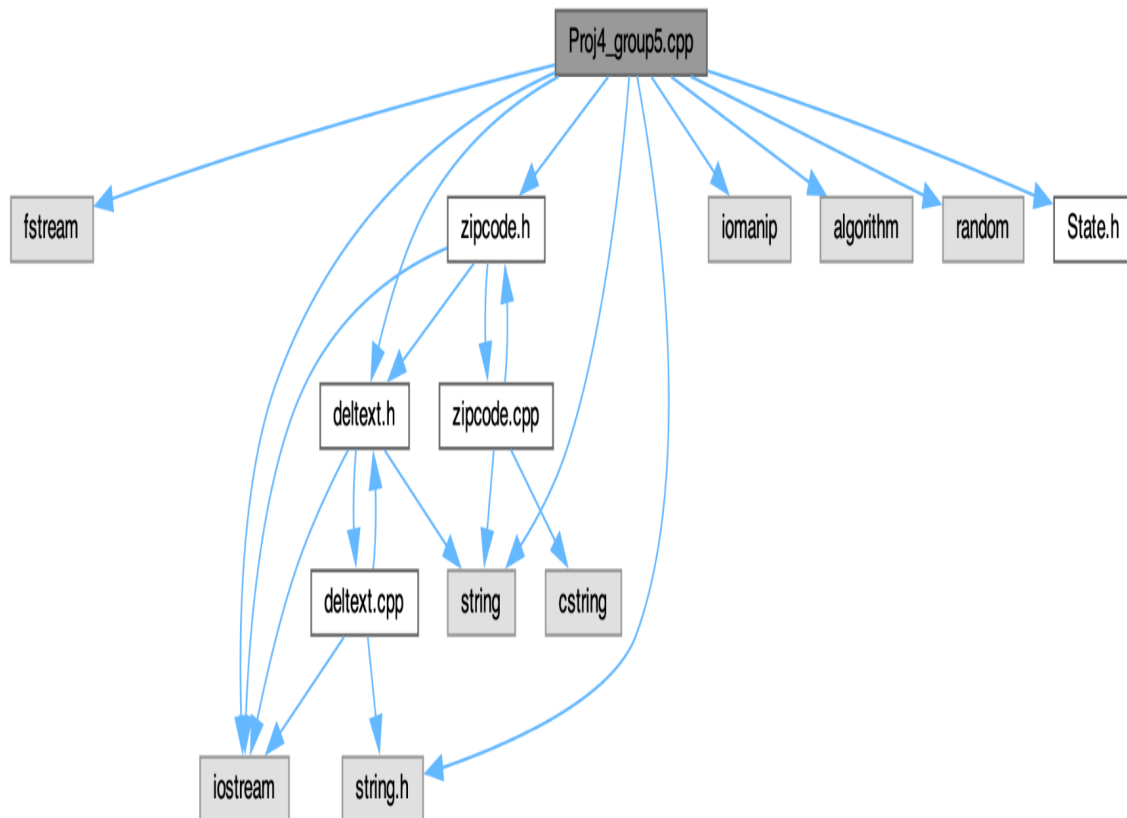Group 5
Professor Jie Meichsner
CSCI 331
10 Apr. 2022

Design Document

Brief:

In this project, various postal code data were used and manipulated using the concepts of buffering, header records, and indexing. Header records were added to CSV files from Project 3 and a primary key index was created in RAM, written as a file, and read back into RAM.

Main Program:

ULM

DelimTextBuffer
- Delim - DelimStr - Buffer - Rbuffer - BufferSize - MaxBytes - NextByte - count
+ DelimTextBuffer() + Clear() + Read() + ReadHeader() + Pack() + Unpack() + PackHeader() + UnpackHeader() + Init() + Print() + Write() + WriteHeader()

State

+ stateName
+ easternZipcode
+ westernZipcode
+ northernZipcode
+ southernZipcode
+ largestLong
+ smallestLong
+ largestLat
+ smallestLat

+ State()

Zipcode

+ Code
+ Placename
+ State
+ County
+ Lat
+ Long

+ Zipcode()
+ Clear()
+ Unpack()
+ Pack()
+ Print()
+ Size()
+ InitBuffer()

PKIStruct
+ zipcode + byteOffset