

CS2263 Assignment 5 Report  
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The modules I used were:

BusRoute.h

A BusRoute contains a routeName that identifies it, a PointList that contains all the stops in that route and the number of stops in that route so that the stops can easily be looped through.

Student.h

This module is just a wrapper for the data taken in about each student, it only has one method that is createStudent and is mostly used just to improve readability. A Student has a location and a name.

PointList.h

A PointList is a list of Point2D's, it's methods are just for memory allocation and accessing elements in the list. It is made up of a Point2D array and it's length.

Point2D.h

A Point2D is a 2D point containing an x and y value. This module contains getters and setters along with a distance between two points function that is used to find the closest bus route.

Test

```
~/Documents/courses/cs2263/assignments/a5/A5Data $ make test
cat students.txt | ./busAssignment busroutes.txt > test.results
./TestPassed.sh ./test.results ./test.expected

##### Passed ##### ./test.results is equal to ./test.expected

~/Documents/courses/cs2263/assignments/a5/A5Data $
```

Output

```
~/Documents/courses/cs2263/assignments/a5/A5Data $ cat students.txt
```

Dante Parker

Should be assigned to Bailey Drive

Tamir Rice

Should be assigned to Mackay Drive

Eric Garner

Should be assigned to Mackay Drive

Phillip White

Should be assigned to Bailey Drive

Minnijean Brown

Should be assigned to Bailey Drive

Elizabeth Eckford

Should be assigned to Bailey Drive

Ernest Green

Should be assigned to Mackay Drive

Thelma Mothershed

Should be assigned to Mackay Drive

Melba Patillo

Should be assigned to Bailey Drive

Gloria Ray

Should be assigned to Mackay Drive

Terrence Roberts

Should be assigned to Bailey Drive

Jefferson Thomas

Should be assigned to Bailey Drive

Carlotta Walls

Should be assigned to Mackay Drive

Daisy Gaston Bates

Should be assigned to Mackay Drive

Addie Mae Collins

Should be assigned to Bailey Drive

Cynthia Wesley

Should be assigned to Dineen Drive East

Carole Robertson

Should be assigned to Mackay Drive

Carol Denise McNair

Should be assigned to Mackay Drive

Rosa Parks

Should be assigned to Mackay Drive

Eric Harris