# Function Description

**Function Name:** printMap

**Parameter List:**

|  |  |  |
| --- | --- | --- |
| Parameter Name | Type | Description |
| map | const struct Map\* | “map” is a struct variable with 3 member variables:  int squares[MAP\_ROWS][MAP\_COLS];  int numRows;  int numCols;  The “squares[MAP\_ROWS][MAP\_COLS]” variable represents the squares that are buildings and the squares that are not.  The “numRows” variable represents the number of rows of the map.  The “numCols” variable represents the number of columns of the map. |
| Base1 | const int | Indicates whether the function should print row indices from 1 up (true) or 0 up (false) |
| alphaCols | const int | Indicates whether the function should print col headers as letters (true) or as numbers (false) |

**Returns:** No return type (i.e. void)

**Description:**

This function prints the “map” variable inputted using the following symbols:

• space = open space

• X = building

• B = blue route

• G = green route

• Y = yellow route

• . = B & G routes overlap

• - = B & Y routes overlap

• \* = G & Y routes overlap

• + = B & G & Y routes overlap

• P = a shortest path or route from one point to another

The function should first set the maximum of rows + base1 to a local variable “rowMax”. Then, depending on the value of “alphaCols”, print the col headers as letters (if true) or as numbers (if false). Then, it should loop through all the rows and columns of the “map” variable and print the correct symbol for each point on the map.