**Matrix Calculator Read Me File**

**What does the application do?**

This application is a terminal based matrix calculator. It can perform addition, subtraction, multiplication between two different matrices. Plus, it has other features, such as, transposing, scalar multiplication, finding determinant, and getting negative of one matrix. Also, users can save their most used matrices in order to access them later.

**How to use it?**

Text

Description automatically generated

After compiling and running the application, main menu is the first screen that the user sees. It displays all the features of the calculator and requests an input from the user. The user needs to select an option by typing the integer in front of each statement. After typing the number, user must click ENTER.

Then, series of questions will appear on the screen. Types of questions are different for each operation, yet this file will go over all of them. Users need to follow the questions in order to see the result of their calculations.

**Enter the size of matrix (?x?):** For this question, users need to enter the size of their matrix in order to continue. The input of the size should be ROWxCOLUMNS. Example answers:

✓ 3x3

✗ 3 3

✗ 3X3

**Read from file(y/n):** For this question, users need to enter ‘y’ if they want to load a matrix from a file that they saved in prior. If they want to create a new matrix, they should press ‘n’ and the program will continue.

**Enter file name:** Users will see this in two different cases. (1) While trying to load a matrix. (2) While creating a new matrix. They just need to enter the name of the file. Created file will be saved in the “src” file.

**Enter element x for matrix:** Users will see this statement while filling their matrices. There will be an example matrix (with letters as elements). Users can use that example to fill their matrices. Users can only fill the matrix with integers.

**Enter the constant:** Users will see this while they are multiplying a matrix with a constant number. They need to enter the scalar integer to see the result.

**How to compile and run the program:**

1. Open terminal and go to the “src” directory.
2. Type “gcc -o matrix matrix.c” 🡺 This will create a binary code names “matrix”. You will see 3 warnings. Do not do anything. They do not affect how program works.
3. Type “./matrix” 🡺 The program should be started in the terminal