



SRS
(Software
Requirement
Specifications)

SLOT 11 Group 1

Team Members

1. Shantanu Patel (Team Leader)
2. Aman Vijay
3. Shyam Lal Bagaria

INDEX

1. Introduction

- 1.1 Purpose
- 1.2 Scope
- 1.3 References

2. The General Description

Part 1

- 2.1.1 Product Perspective
- 2.1.2 Product Functions

Part 2

- 2.2.1 Product Perspective
- 2.2.2 Product Functions

3. Performance Requirements

4. Quality Characteristics

1. Introduction

1.1 Purpose

The purpose of this SRS is to introduce a user to the basic functions that we would have in our program and its usability. It would also state the system requirements to run the program.

1.2 Scope.

The name of our program is THE MATRIX.

The program will help one to perform some basic and advanced operations on matrices and get the answer immediately instead of calculating it. So , it would be helpful for verification purposes and save time. Also , it would leave out the scope of silly mistakes while calculating the answer or evaluating a matrix to get some desired output. It also includes a very addictive game named the game of matrix by us.

1.3 References

Lecture Notes of Professor Supratik and Professor D.B.Phatak, IIT Bombay.

User Manual of CodeBlocks.

An Introduction to Programming through C++ (Abhiram G Ranade)

2. The General Description

Part -1

2.1.1 Product Perspective

The part one of the code basically includes basic operation on matrices

and there applications.

2.1.2Product Functions

a. Addition : The program will get input of two matrices and print the addition of them.

b. Multiplication : The program will take input of two matrices and its orders, check whether

they can be multiplied or not and then print out the desired output if possible.

c. Trace: The program will input a matrix and then print its Trace value.

d. Determinant : The program will take input of the order of a matrix. Here, it

will always be a square matrix. It would then input it elements and then caluculate its

determinant value and print it on the output screen.

- e. Inverse : The program would take input of a square matrix and calculate its inverse
to print it on the output screen. It would take into use the previous functions like
the function to calculate the determinant value of a matrix.
- f. The program can also find eigen values of 2X2 matrix and can check for higher matrices
that a given value is eigen value of the matrix or not.

Also, there would be basic functions to take input of and display a matrix on the screen .

These functions will be called when required directly from various functions.

Part-2

2.2.1Product Perspective

This part of the code includes the matrix game called HIT THE MATRIX.

2.2.2Product Functions

As we choose the game option in the program , we come across a window in which nine squares

are present. The squares turn red one by one randomly and we have to click on the red dot within one

second . If we are late or we clicked somewhere else then we are out.

3. Performance Requirements

The program requires a C++ Compiler to run , execute and produce the desired output.

It would be best to have

Windows 7 or later Operating System

OR

Linux

CODEBLOCKS as C++ compiler.

Though other compilers will also do.

Simplecpp is also required for Hit The Matrix Game.

4. Quality Characteristics

- Efficiency
- Maintainability
- Portability
- Reliability
- Reusability
- Testability
- Usability