

# TEAM DIARY

## SLOT 11 Group 1

### Team Members

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

### 4 October

The groups were formed by the TA

Being a short vacation, we didn't do anything till 7 October

7 October

We had a short team meeting to just discuss what topic should we take up for our project in which various ideas were given.

12 October

We had another team meeting and we decided on our project topic. We would be doing Matrices and its operations in which the most simplest and basic operations like Addition, multiplication and trace would be there but we would also include some advanced operations like finding its determinant, Gaussian elimination and Finding the Inverse.

13 October

We thought, discussed and came up with a logic to find the determinant of a matrix. First, we dealt with a fixed order determinant of  $3 \times 3$  and wrote a program for it. It just gave us a basic idea of how to implement calculation the determinant of a higher order matrix by writing a C++ program.

18 October

We wrote the basic code for the simple functions and finalized the logic to find the determinant of a matrix.

Also we started thinking about the logic which we wanted to use to find the inverse of a matrix and also do Gaussian elimination to find out whether a matrix was singular or non-singular without calculating its determinant value.

19 October

We thought of a logic to calculate the inverse of a matrix.

We also made the SRS, User Manual and Project Report.

29th October

We met after the Diwali vacations on 29th Oct. We completed our program till finding the inverse of the matrix and started

thinking about more things that we can add in our program. We decided to add applications of matrices which are-

1 Eigen values of matrices

2 Best Fit Line

31th October

we discussed about eigen values of matrices. We decided to find eigen values of only  $2 \times 2$  matrices as we could not come up

with a C++ function to solve a cubic equation. We also discussed the concept and wrote the program to get eigen values

of a  $2 \times 2$  matrix.

4th November

We met again to discuss the concept of best fit line. We learnt that its program is given in one of our lectures. So we decided to not include that in our software and add a function to check eigen values of a given  $n \times n$  matrix.

19th November

We met again after our endsems to discuss about the game that we are going to include in our program. We decided a rough sketch of the program.

20th November

We saw the graphics video and met again to complete our game and hence complete our project. It took a little longer to complete our game. So, we couldn't do it in one night. Shantanu finished the game by himself.

23rd November

We met again for the last time to do the finishing of our project and make our fair project diary , srs , user manual project manual.