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Group No. 06

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In the present scenario, where the world is taking breath at a high pace, computers have now become an integral part of our life. We are given with an excellent opportunity to learn computers by our institute under the guidance of one of the best professor of Computer Science in India Dr.D.B.Phatak, Dr. Supratik Chakraborty. Lessons by sir during the classes proved to be of great help .We learned great qualities like Professionalism, Team work, Self Assessment, etc. which are sure to play an important role in our life. Last but not the least we will also like to thank our very helping TA Uday Barla who was there always to help us in any difficulty and to clear our doubts. Overall it was a great journey and again a big thanks to our professor.

MINESWEEPER is a mind game. The object of the game is to clear an abstract minefield without detonating a mine.

Minesweeper cannot always be solved with 100% certainty, and may require the occasional use of probability to flag the square most likely to have a mine. In other words, one must sometimes guess to solve a minesweeper puzzle.

The Project (Level 1 & 2) has been completed successfully. All members from our team participated well. Minesweeper is working perfectly without graphics.

Our Team (Lab Batch 06) was working all together.

We all attended all the meets. We all had done the work as per assigned by our group leader (Laksh Agarwal).

The work assigned to the Team Members is:-

Laksh Agarwal :- Decided all the meets, decided what work should be given to whom, fabricated the whole project, writes the major part of the program (Knows small amount of programming earlier).

Kumar Spandan Sardar :- Attended all the meets, typed the user manual, helped in writing of the program, Best Typer among us (Beginner at programming).

Amritesh Aryan :- Attended all the meets, typed the SRS file, helped in writing of program, Googling for understanding the SRS file (Beginner at programming).

The objective is to find the empty squares in the minefield while avoiding the mines. When you find all the squares without detonating a single mine, you win the game. The faster you clear the board, the better your score.

**The Minesweeper Board**

Minesweeper has four standard boards to choose from, each progressively more difficult.

Beginner Level : 06\*06 Tiles, 06 Mines

Amateur Level : 10\*10 Tiles, 10 Mines

Professional Level : 15\*15 Tiles, 15 Mines

**How To Play**

The rule in minesweeper is simple:

Uncover a mine, and game ends.

Uncover a empty square, and u keep playing.

Uncover a number, and it tells you how many mines lay hidden in the eight surrounding squares-Information you use to deduce which nearby squares are safe to click.

You win if you correctly flag all the boxes which contain mines.

**Hints & Tips**

Mark the mines. If you suspect a square conceals a mine, click on it when flag mode is on. This puts a flag on the square.

Study the patterns. If three square in a row display 2-3-2, then you know three mines are probably lined up beside that row. If a square says 8, every surrounding square is mined.

Explore the unexplored. Not sure where to click next?

Try clearing some unexplored territory. You’re better off clicking in the middle of unmarked squares than in an area you suspect is mined.

Some of the features that is available to the user:

Option to choose THREE DIFFICULTY LEVELS.

The user will get randomly mined maps every time.

In case of losing, Dialog box will show TWO options:

New Game, Exit Minesweeper.

We are showing the Minesweeper Board at last, when the User get lost. (Board is showing the place of mines.)

The following are the various code intercepts written by our Team Members for various input & output operations. This includes only the main functions that are used. Minor functions have been avoided & details about those functions have been given as comment lines in the program.

**Different Libraries Used**

#include <iostream>

#include <stdio.h>

#include <stdlib.h>

#include <ctype.h>

#include <time.h>

We have used Global Variables to make our project less complicated.

**Different Functions Made**

void build\_board\_b();

void build\_board\_a();

void build\_board\_p();

void build\_gboard\_b();

void build\_gboard\_a();

void build\_gboard\_p();

void create\_mines\_b();

void create\_mines\_a();

void create\_mines\_p();

void print\_board\_b();

void print\_board\_a();

void print\_board\_p();

void print\_fullboard\_b();

void print\_fullboard\_a();

void print\_fullboard\_p();

void start\_b();

void start\_a();

void start\_p();

int play\_game\_b();

int play\_game\_a();

int play\_game\_p();

void play\_again\_b();

void play\_again\_a();

void play\_again\_p();

int check\_win\_game\_b();

int check\_win\_game\_a();

int check\_win\_game\_p();

void check\_for\_mine\_b(int, int);

void check\_for\_mine\_a(int, int);

void check\_for\_mine\_p(int, int);

int check\_for\_nearby\_mines\_b(int, int);

int check\_for\_nearby\_mines\_a(int, int);

int check\_for\_nearby\_mines\_p(int, int);

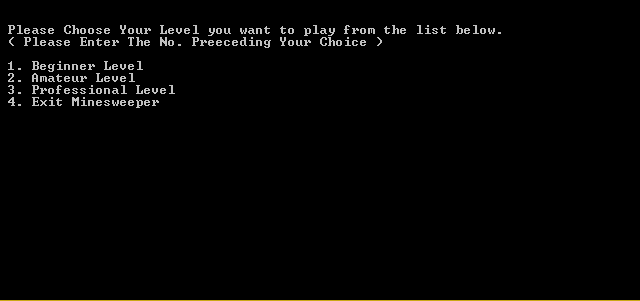
These ScreenShots are of MINESWEEPER offered by:

CODEBLOCKS

Before Playing The Game :-



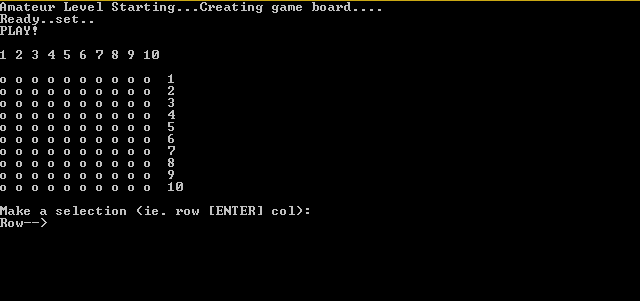
Showing Of Levels :-



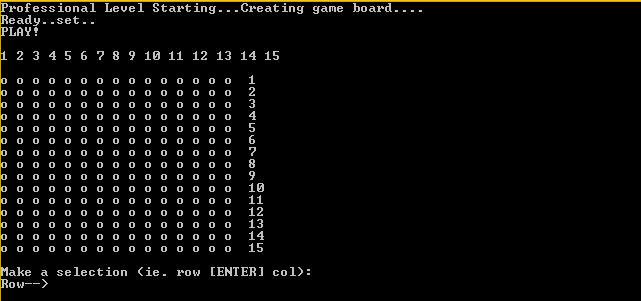
Beginner Level :-



Amateur Level :-



Professional Level :-



Playing The Game :-



After Losing The Game :-

