



Cs 101 project: chain reaction game.

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SOFTWARE

REQUIREMENT

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Acknowledgement

First of all we would like to thank Prof. Deepak B Phatak & Prof. Supratik Chakraborty who provided us this wonderful opportunity to explore the C++ language

through this group project. We also thank our lab T.A Stanley Thomas whose help would be crucial in completion of the project.

INTRODUCTION

This Software Requirements Specification provides a brief description of the functions and specifications of our CS 101 group project. It will explain the purpose and features of the system, the interfaces of the system, what

the system will do, the constraints under which it must operate and how the system will react to external stimuli.

PROBLEM STATEMENT:

Chain reaction game is an interactive computer game, in which the goal of the player is to occupy all the cells with his orbs. The game is played between multiple players with user friendly environment.

DESCRIPTION OF INPUT AND OUTPUT

The game starts with a Welcome Screen.

Next, the user can choose between the following options on the Home Screen:

- 1. Play a new game*
- 2. Dnstruction*
- 3. Exit*

New Game:

Once the user is into a game, the screen shows a grid with small boxes arranged in the form of 8 rows and six columns. Each small box are adjacent to one another. The user is expected to input the required values click where he wants to place an orb.

Instructions:

The 'instructions' window gives information about playing the game.

Exit:

This option is to close the game

FUNCTION SPECIFICATIONS

Details of functions, standard libraries and global variables are given below.

Functions Used:

- *'Drawgrid' a function to create the grid.*
- *'win' a function to check the winner.*
- *'expand' a function to control the explosion of orbs.*
- *'playgame' a function to begin the game.*

Standard Libraries And Header Files Used:

- *<#include<simplecpp>*
- *#include<cmath>*
- *#include<iostream>*
- *#include<assert.h>*

STATUS OF COMPLETION

Finally we were able to complete the chain reaction game for 2 players. We used simple cpp for the graphics part of our game. We finally after the cooperation of all the team members and help from our TA were able to complete the project.

Ideas for Future Work

On order to make the game more interesting, we had planned to include the following features in our program. However, at the moment, we leave these for future improvement.

- 1. Use of advanced graphics.*
- 2. Introduce sound to make it more interesting.*
- 3. Try to make the game for more than 2 players.*

4. *Of possible to introduce player vs computer mode, which at this moment is very tough inclusion in this game.*

Unfortunately...we were unable to implement any of the future idea due to lack of time as well as lack of advanced coding knowledge.

User Interface Requirements

We are using EzWindows to display the game in ubuntu environment.

