Software Requirement Specification

CS101 Projects 2015

THE MIND GAME :-RUBIK'S SOLVER

A logical game using C++ Graphics library

Friday batch

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1 Introduction

This document describes the software requirement specification of the code written for the Game "Rubik's Cube Solver" made using the standard C++ graphics library.This document describes its functionality and gives a brief overview of the software being made.

1.1 definitions , acronyms and abbreviations

The rubik's cube game is a 3d game. But the disadvantage is that 3 d implementation of the game is that we cannot see the six faces of cube at the same time. So we have decided to represent the cube in a 2d graph.We know that the cube has six faces, lets name them 0-5.

* 0 F = FRONT FACE

* 1 R = RIGHT FACE

* 2 U = UPPER FACE

* 3 L = LEFT FACE

* 4 D = DOWN FACE

* 5 B = BACK FACE

1.2 REFERENCES

1 AN INTRODUCTION TO C++ PROGRAMMING BY ABHIRAM G RANADE.

2 STACK OVER FLOW WEBSITE

3 PREVIOUS YEAR PROJECTS

2 OVERALL DESCRIPTION

2.1 Product Perspective

This project is inspired by our interest in logical games. we shall strive to add modern updates for this game to make it more interesting .

2.2 Product Functions

This game is a 2 dimensional 3x3 rubik's cube solver which provides the user to switch between the faces and solve the cube

2.3 constraints

In this game the user can only see the cube in 2d view as the graphics will be extremely complicated in a 3d view.

2.4 Assumptions and dependencies

The user should have the basic interpretation on the computer basics and also a minimum knowledge on solving the rubik's cube.

2.5 Requirements subsets

It should even work on an old computer machine with a slower processing power given a necessary file executer.

3 DETAILS

3.1 functionality

In this program we display a 2-dimenshional
3x3 face of Rubiks cube by using simple cpp

in which the first 9 blocks will be displayed and then colours will be filled in them.

Other non graphical code is written by using code block software

3.2 supportability

The code is being developed in such a way so as to facilitate easy assimilation of add ons to the code.It should encourage future programmers to develop their own extensions of what they want in the program.

3.3 Design Constraints

The screen resolution is being limited and it wont be able to fit into the full screen.Also the software we use , will have limited graphics.

3.4 Interfaces

3.4.1 User Interfaces

This software has the menu function which takes the input from the user to give the intended output.

3.4.2 Hardware Interfaces

This game doesn't need any additional hardware from the basic computer setup.

3.4.3 Software Interface

Doesn't need to add on any extra target software but with future extension and mods the game can be made in a way the user needs.

3.4.4 Communication Interfaces

As of now , our game is not providing any sort of system that necessitates it to connect to the internet and compete with users online to solve the game faster.

4 Quality Control

The game shall be made to run free of bugs as much as possible, avoiding any glitches.

5 Risk Management

Our team is a bit inexperienced with the graphics manipulation,but we will be working parallel with learning on the working of the graphics library.

We will be referring from Abhiram G.Ranade book of programming and through T.A's help in case of any problem being too complex and learning through online tutorials on the usage of graphics with C++ code .

The code will be well preserved by making multiple ordered copy of the source code and its numerous update version . Also we will use git services for code preservation under the guidance of T.A.

6.Test Cases

we will take output of the values which are in each square to check the code