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little red riding hood

COMPUTER GRAPHICS REPORT

GROUB NAME:
BLUE

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- INTRODUCTION
- GENERAL IDEA

Our project is an animation that start with a introduction story and then leads you to the game. And it's about a little girl who was told by her mother to go to her grandma because she is sick, and bring her some food and medicine.
but there’s something the girl doesn't know ! To go there she needs some help to pass the dark forest and some difficult obstacles and this help will be by player.

GOAL:

Our goal was to create a game that we could have everyone's attention to, a game that contains a famous story from our childhood, and we chose the story of Layla and the Wolf to implement our goal.

CONTRIBUTIONS OF THE PROJECT:

Teamwork
Search for solutions to problems
A game that helps stimulate the mind and increase concentration
Self-education

DESCRIBES THE PROJECT SCOPE AND THE IDEA IN DETAIL.

First, we will start the game with a short story in which Layla talks about herself and asks the player for help in reaching her grandmother's house safely without colliding with the wolf and the difficulties that she will face on the way to her journey, along with her trip you need to collect apples for her grandmother. All of these ideas have been summarized in 5 drawings picture. After completing the story, the player will be shown the gameplay information and the buttons he needs to move and jump to overcome obstacles. During the game, 4 different backgrounds will appear with obstacles and new apples for each background. The player must collect apples and overcome obstacles to move to the next background to reach the grandmother's house safely, but If the player collides with an obstacle, he will have to start the game again.

MORE DETAIL SHOWN IN NEXT CHAPTER>>

CHAPTER 2: METHODOLOGY

LIBRARIES ARE USED:

```
#include <OpenGL/gl.h>
#include <GLUT/glut.h>
#else
#include <GL/glew.h>
#include <GL/freeglut.h>
#include <Windows.h>//«·'Ê
#define GLFW_KEY_SPACE
#endif
#include <stdlib.h>
#include <iostream>
```

METHODS USE IN DRAWING:

```
void drawFilledCircle(GLfloat x, GLfloat y, GLfloat radius)
void drawHollowCircle(GLfloat x, GLfloat y, GLfloat radius)
void DrawCurve(float cx, float cy, float r, int
num_segments,float arc_length)
```

BUILT-IN FUNCTIONS:

```
glClear(GL_COLOR_BUFFER_BIT | GL_DEPTH_BUFFER_BIT):
glClearColor(0.0f, 0.0f, 0.0f, 1.0f);
glTranslatef(x, y, z);
glRotatef(angle, 0.0f, 1.0f, 0.0f);
glScalef(scaleX, scaleY, scaleZ);
glBindTexture(GL_TEXTURE_2D, textureID);
```

SHAPE FUNCTIONS:

WE USE ALL FUNCTIONS OF SHAPES WE HAVE LEARN LIKE;

glBegin(GL_POINTS);
glBegin(GL_LINES);
glBegin(GL_TRIANGLES);
glBegin(GL_QUADS);
glBegin(GL_POLYGON);

METHOD EXAMPLE:

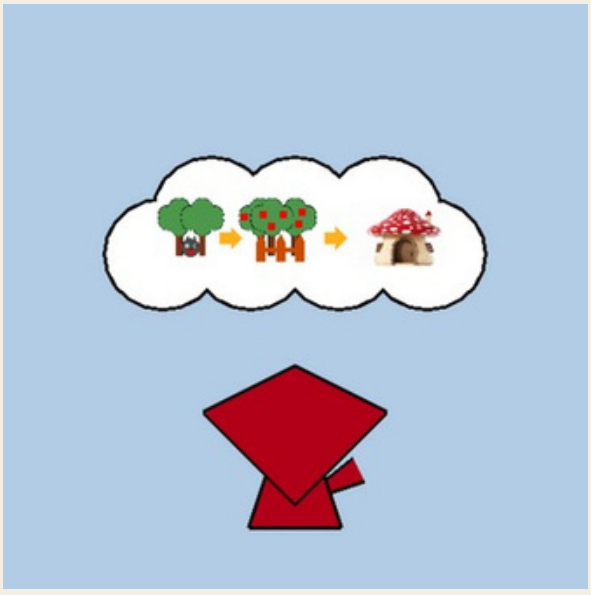
```
//To write on the screen
glRasterPos2f(-0.37f, 0.5f);
const char* text1 = "HI My name is layla";
while (*text1) {
glutBitmapCharacter(GLUT_BITMAP_TIMES_ROMAN_24, *text1);
text1++;
}
```

WE USE THIS METOD TO WRITE TEXT IN THE SCREEN FOR THE STORY

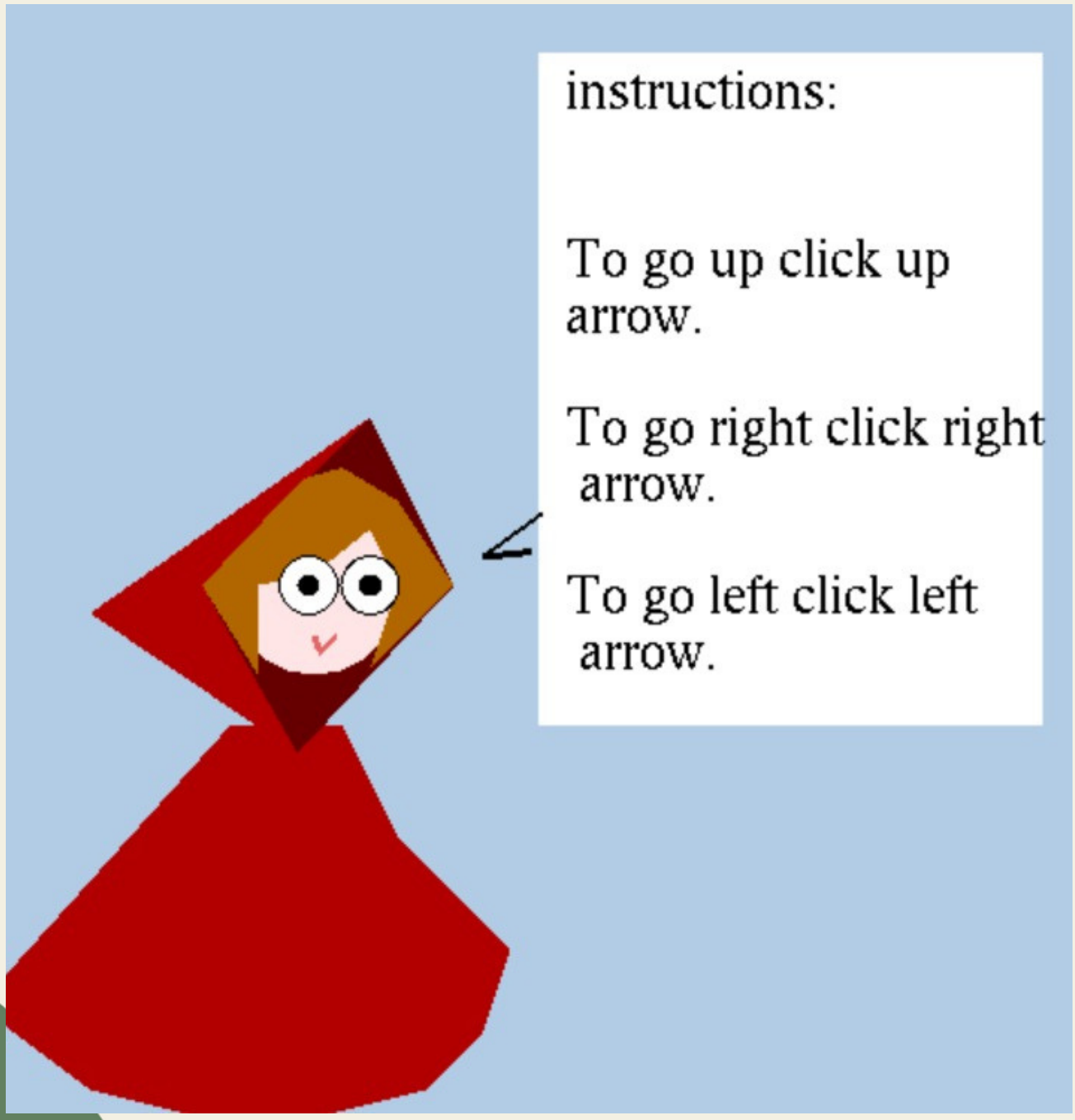
CHAPTER 3: RESULT

SCREENSHOTS WITH DESCRIPTION OF OUR PROJECT

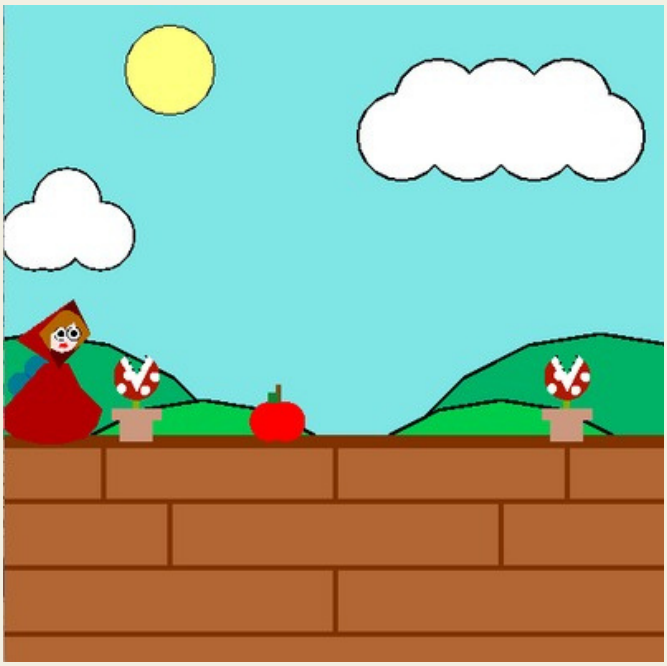
START WITH STORY:

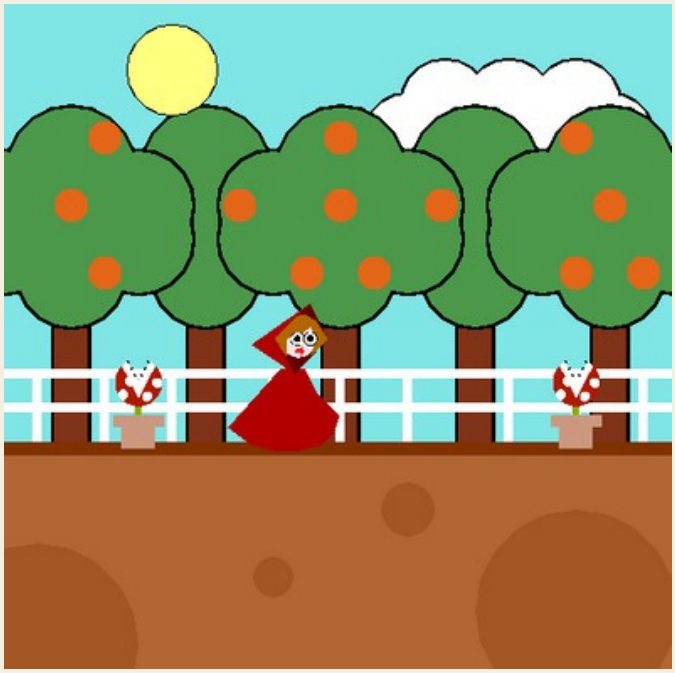


GAMES INSTRUCTIONS:

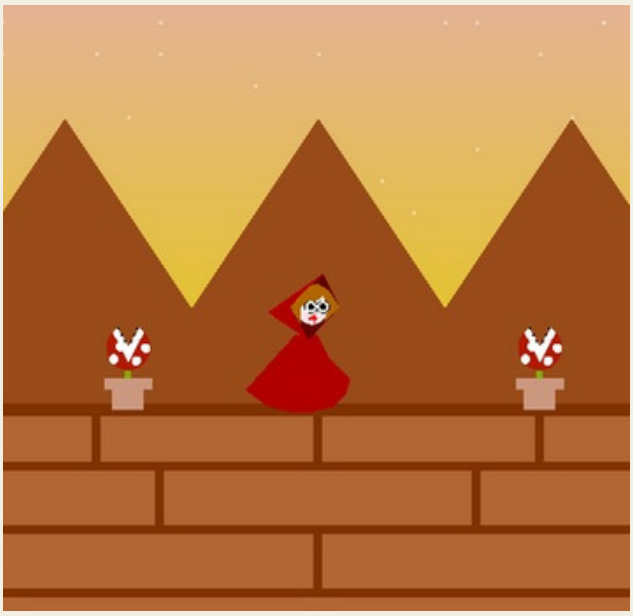


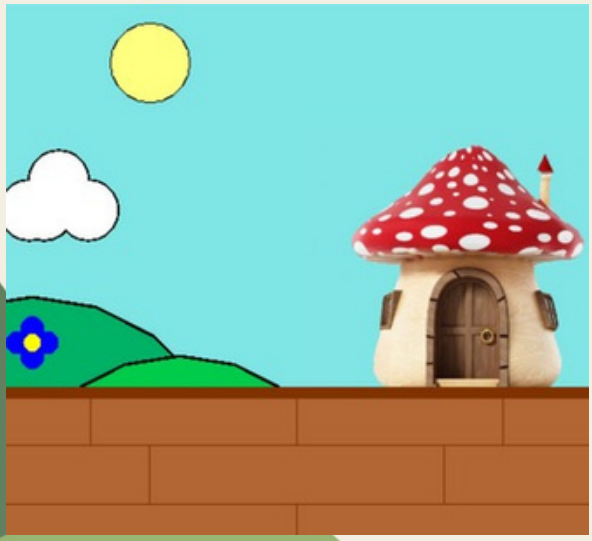
GAMES BACKGROUND:





GAMES BACKGROUND:





CONGRATULATIONS
YOU ARRIVED SAFELY

FUTURE WORK:

1-IF WE HAVE TIME, WE WOULD LIKE TO ADD SOUND TO THE GAME. IT WILL MAKE IT MORE ENJOYABLE

2- ADDING MORE BACKGROUNDS AND STAGES

3- I THINK ADDING OTHER CHARACTERS

4- MAKE IMPROVEMENTS TO MOVEMENT TO BECOME MORE FLEXIBLE

CONCLUSION:

In the end, I don't know whether I was happy or sad at the end of this project. We enjoyed every part of doing it. We overcame the difficulties together, and we were truly amazed by the fact that the games we used to play with in the past Became our own games! The only drawback in this matter was the time. We wanted to develop a lot and add more to our project, but what is important now is the fact that we are completely satisfied with our work, and I believe that you will see more games from our team. Thank you for your support of our game, and your opinion is important to us so we can continue. The blue team was with you.

REFERENCE:

texture
https://youtu.be/u-00hjlfMKc?si=SetPVbrNB-KzB9sB

motion
https://youtu.be/CR5SW3gmxPE?si=MC3DdCEKAmFBw1Ow

buffers
https://youtu.be/KG9ZXKaJWwY?si=mGn-cnS-eiBkjbIP

background
https://youtu.be/hisoR2MvQaM?si=WeRr9iPRiTbbKyVu