VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM-590 014

A Mini-Project Report
On
" DAY OR NIGHT "

Submitted in partial fulfillment of the requirement for the award of the degree of

BACHELOR OF ENGINEERING
in
COMPUTER SCIENCE AND ENGINEERING

Submitted by

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SRI VENKATESHWARA COLLEGE OF ENGINEERING, BANGALORE - 562 157.

2019-2020

SRI VENKATESHWARA COLLEGE OF ENGINEERING,
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Department of Computer Science and Engineering

CERTIFICATE

This is to certify that the project entitled **"DAY OR NIGHT"** carried out by **Mr.** RAUSHAN KUMAR **(**1VE17CS094) and **Mr.** SHAIK MASTANVALI (1VE17CS102) are bonafide student of Sri Venkateshwara College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of **Visvesvaraya Technological University, Belgaum** during the academic year 2019-2020. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide
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Name of the examiners: **Signature with date**

1.

2.

ACKNOWLEDGEMENT

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ABSTRACT

The purpose of DAY OR NIGHT is to automate the day, night and rainy weather and full-fledged computer software , fulfilling their requirements, so that valuable weather can be accessed.

DAY OR NIGHT is a OpenGL application which is engaged in providing weather view for all the users associated with the particular location area. The paper aims at, how the online DAY OR NIGHT can improve the efficiency of the weather when it comes to the information from the different geographical area. DAY OR NIGHT is one of the applications to improve the usage of satellite and sun movement to show weather information. This OpenGL application helps the users to retrieve the weather data directly through their cell phones, laptops and computers.

This OpenGL application involves the features of online data access. ln the DAY OR NIGHT project all the updates like, day, night, view are done by clicking buttons D,N respectively.

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1. INTRODUCTION

A DAY OR NIGHT is a browser based system that is designed to process, retrieve and analyze information concerned with the phases of day, night and it also shows the rainy day according to movement of sun and weather information system.

DAY OR NIGHT System is available to everyone easily. A person who likes to know and access weather information can access it with simply three buttons- D for day, N for night and R for rainy weather. A DAY OR NIGHT is a mini project in computer graphics which is simple, good looking and useful.

PURPOSE OF THE PROJECT:

The main aim of the DAY OR NIGHT Graphics Mini Project is to illustrate the concepts and usage of pre-built functions in OpenGL

1.1 OBJECTIVES:

- The main objective of the project is to design and develop a user friendly system
- Easy to use and an efficient computerized system.
- To develop an accurate and flexible system.
- To study the functioning of day and night.
- To make a software fast in processing, with good user interface.

- To make software with good user interface so that user can know change in season and it should be good in working.
- To provide synchronized system.
- Computerization can be helpful as a means of saving time and energy.
- To provide better weather information details.
- Less chances of information leakage.

1.2 LIMITATIONS:

- Unavailability of information in cloudy weather.
- Wrong weather information in solar eclipse.
- Unavailability of information in absence of sun in bad weather days.

2. REQUIREMENTS SPECIFICATION:

2.1 SOFTWARE REQUIREMENTS:

Technology:

- Microsoft Visual Studio 2008 version
- OpenGL supporting tools

2.2 HARDWARE REQUIREMENTS:

1. Computer with a 1.1 GHz or faster processor
2. Minimum 4GB of RAM or more
3. 2.5 GB of available hard-disk space
4. 5400 RPM hard drive
5. **1366 × 768** or higher-resolution display
6. Pendrive

3. IMPLEMENTATION:

3.1 INTRODUCTION:

A DAY OR NIGHT is a browser based system that is designed to process, retrieve and analyze information concerned with the phases of day, night and it also shows the rainy day according to movement of sun and weather information system. A DAY OR NIGHT is a mini project in computer graphics which is simple, good looking and useful. We have mainly created some artifacts in this mini project, like a home, sun, clouds, trees, and birds. In the project a day, night and rainy weather is shown by movement of sun. This is an overview of the project.

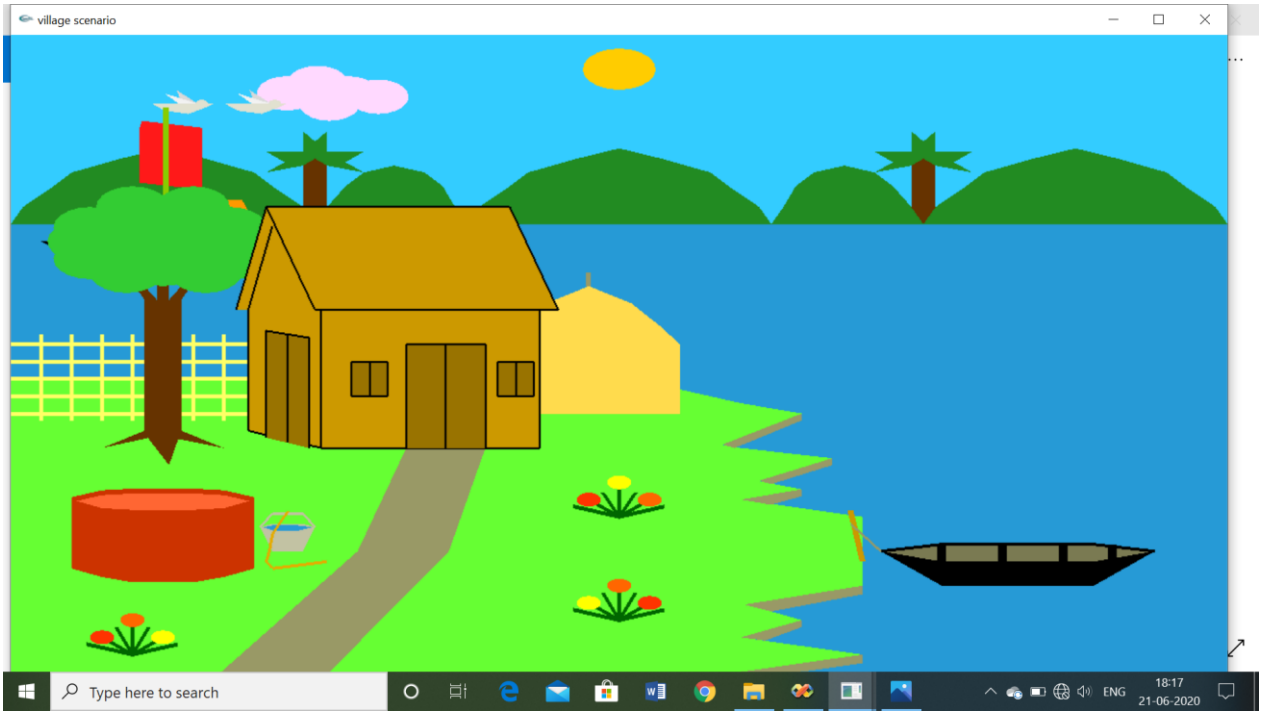
4. SOURCE CODE:

```
#include<cstdio>
#include <windows.h>
#include<math.h>
#include <vector>
#include <cstdlib>
# define PI 3.14159265358979323846
//#include <gl.h>
#include <glut.h>
#include<MMSystem.h>
void PointLight(const float x, const float y, const float z,  const float amb, const float diff, const float spec);
void PointLight(const float x, const float y, const float z, const float amb, const float diff, const float spec)
{
  glEnable(GL_LIGHTING);
  GLfloat light_ambient[] = { amb,amb,amb, 1.0 };
  GLfloat light_position[] = {-0.9,.9,0, 0.0 };
  glLightfv(GL_LIGHT0, GL_AMBIENT, light_ambient);
  glLightfv(GL_LIGHT0, GL_POSITION, light_position);
  glEnable(GL_LIGHT0); //enable the light after setting the properties
}
GLfloat position22 = 0.0f;
GLfloat speed22 = 0.007f;
void birdd(int value) {
    if(position22 > 1.0)
        position22 =-1.0f;
```

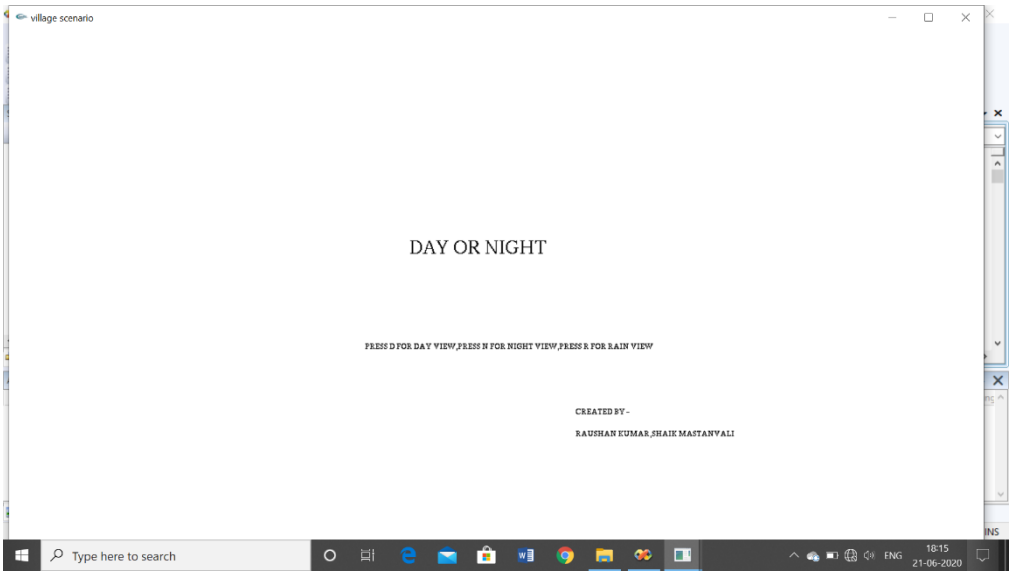
```
    position22 += speed22;
      glutPostRedisplay();
      glutTimerFunc(100, birdd, 0);
}
GLfloat position4 = 0.0f;
GLfloat speed4 =-0.01f;
void sunn(int value)
{
   if(position4 > 1.0)
        position4 = 0.0f;

    position4 += speed4;

      glutPostRedisplay();




      glutTimerFunc(100, sunn, 0);
}
GLfloat position3 = 0.0f;
GLfloat speed3 =- 0.5f;
void rain(int value) {
    if(position3 <- 1.0)
        position3 = 1.0f;
    position3 += speed3;
      glutPostRedisplay();
      glutTimerFunc(100, rain, 0);
}
```

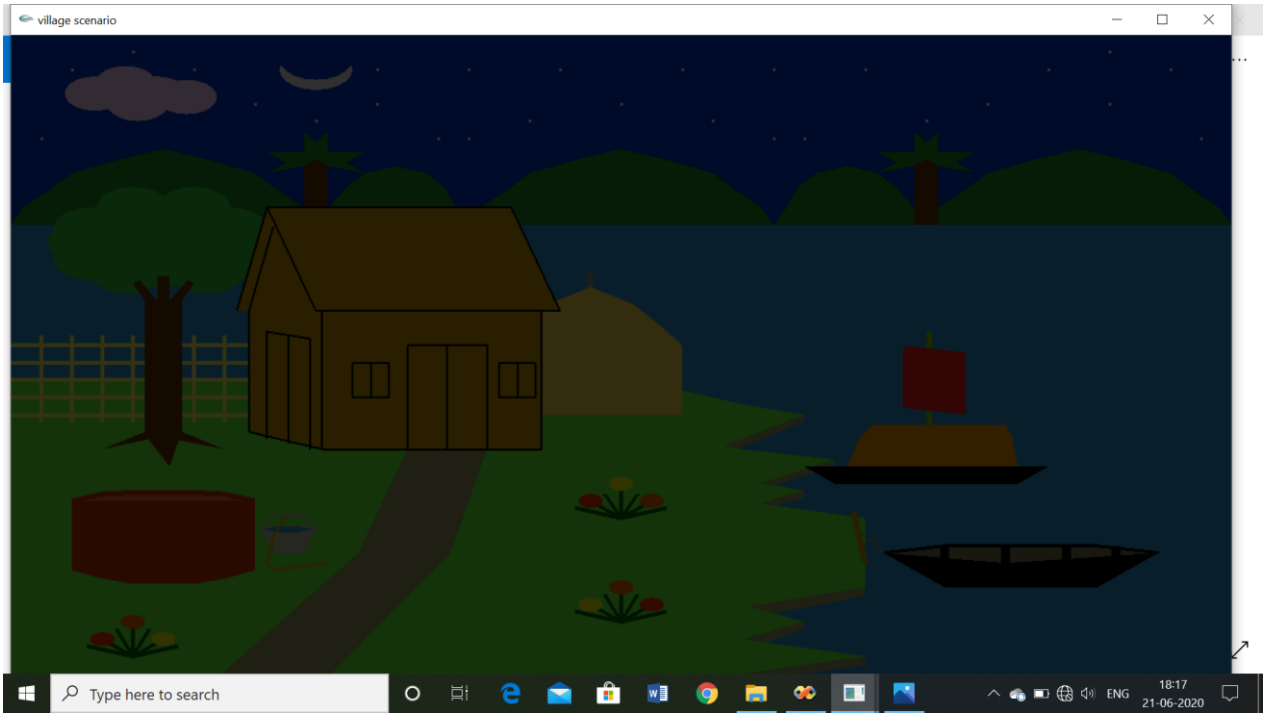
```
GLfloat position2 = 0.0f;
GLfloat speed2 = 0.004f;
void cloud(int value) {
    if(position2 > 1.0)
        position2 =-1.0f;
    position2 += speed2;
     glutPostRedisplay();
     glutTimerFunc(100, cloud, 0);
}
```

5.USER INTERFACE:



-


village scenario
DAY OR NIGHT
PRESS D FOR DAY VIEW,PRESS N FOR NIGHT VIEW,PRESS R FOR RAIN VIEW
CREATED BY -
RAUSHAN KUMAR,SHAIK MASTANVALI
Type here to search
ENG
18:15
21-06-2020


village scenario
Type here to search
ENG
18:17
21-06-2020

FUTURE ENHANCEMENTS:

1. It can be applied in cloudy day as well.
2. Work in solar eclipse.
3. Better satellite communication for weather information.

REFERENCES:

1. Computer Graphics with OpenGL 4th Edition, Donald D. Hearn, M. Pauline Baker, Warren Carithers
2. www.google.com
3. www.wikipedia.com