AMERICAN INTERNATIONAL UNIVERSITY BANGLADESH
FACULTY OF SCIENCE and TECHNOLOGY

Project Title: **Residential Area View**

Semester: **SUMMER 20-21**

Subject Code: **CSC4118**

Subject Name: **COMPUTER GRAPHICS**

Section: **A**

Course Instructor: **MD SIYAMUL ISLAM**

Degree Program: **BSc in CSE**

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Residential Area View Report : Shojib, Kazi Ahsanul Haque

Features & Description :

This is a residential area view where there are some building, tree, cloud, sun, moon, road & a children park as well. In our project we use two mode such as day mode & night mode.

Project Goal

The aim of this project is to show the shadow implementation using OPENGL which include Movement, Light properties also transformation operations like translation, rotation, scaling etc. on objects.

Feature:

1. GL object (polygon, triangle, circle etc.)
2. Moving object
3. Keyboard Handler
4. Render bitmap
5. C++
6. Code blocks

Computer Graphics

Graphics provides one of the most natural means of communicating with a computer, since our highly developed 2D pattern recognition abilities allow us to perceive and process pictorial data rapidly and efficiently. Interactive computer graphics is the most important means of producing pictures since the invention of photography and television. It has the added advantage that, with the computer, we can make pictures not only of concrete real-world objects but also of abstract, synthetic objects, such as mathematical surfaces and of data that have no inherent geometry, such as survey results.

OpenGL

OpenGL (Open Graphics Library) is a standard specification defining a cross language cross platform for writing applications that produce 2D computer graphics. The interface consists of over some different function calls which can be used to draw complex 2D scenes from simple primitives. OpenGL was developed by Silicon Graphics Inc. (SGI) in 1992 and is widely used in CAD, virtual reality, scientific visualization, information visualization and flight simulation. It is also used in video games, where it competes with direct 2D on Microsoft Windows Platforms. OpenGL is managed by the nonprofit technology consortium, the Khronos group Inc.

HARDWARE REQUIREMENTS:

• 140 MB of RAM, 220 MB recommended.
• 90 MB of hard disk space required; 30 MB additional hard disk space required for installation (150 MB total).

Development Platform: MICROSOFT WINDOWS 10
Language : C++
Tool : Code Blocks
Library : OpenGL

Project Contribution :

Shojib, Kazi Ahsanul Haque : Sky, Cloud, Sun, Road, Divider

Dipunkor Sarker   : Houses, Bus Stop
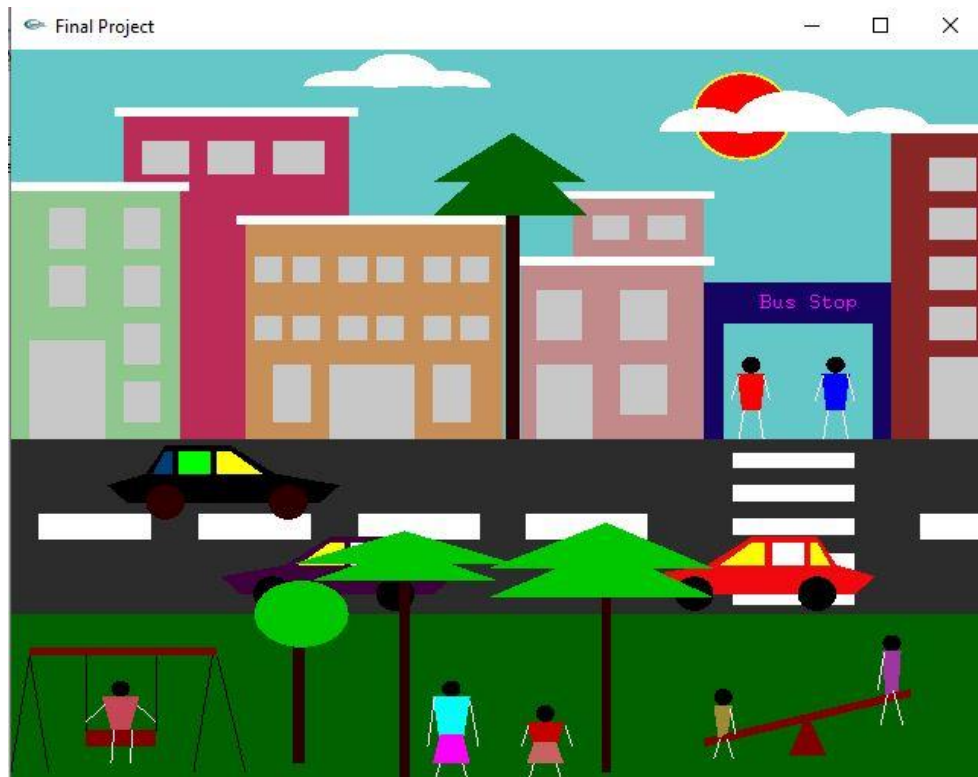
Nishat Tasnim   : Moving Car, Translation

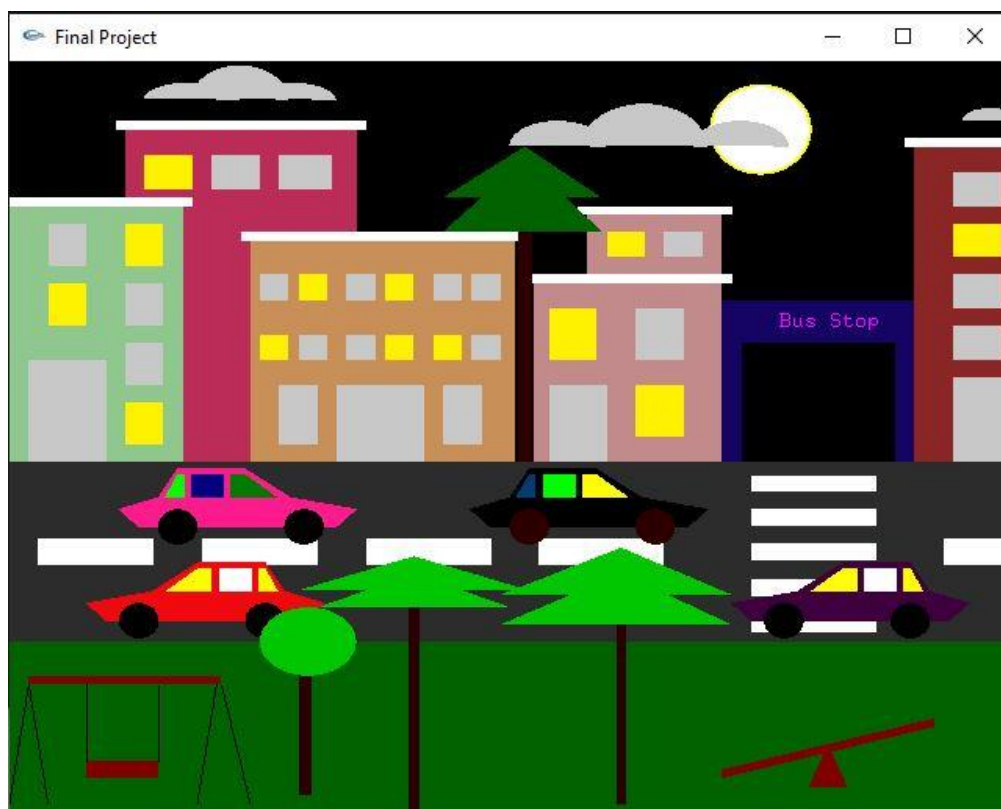Md. Rafi Hasnain   : Night mode, Assemble all code

Safwan Iftekhar Uddin   : Park View, Tree, Park Instruments, People

Display Project :

Day View :

Night View :

Short Summary work:

Drawing and animation:

Sky : There are moving cloud, sun in the sky.

Road: There is a road design and color.

House : There are many brick house.

Car: There are moving cars & Speed control.

Tree: Making Tree and color Design.

Park: Making Park and some park instruments.

Night View : There is a night mode design in it.

Keyboard and Mouse control: For animation keyboard and mouse control

System process