

American International University Bangladesh



Computer Graphics

Course Code: CSC4118

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Lecturer

Department of Computer Science, FST

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Project Proposal

- **Project Type: Scenario**
- **Project Title:** Washington City View
- **Project Description:**

Vision of Department

Our vision is to be the preeminent Department of Computer Science through creating recognized professionals who will provide innovative solutions by leveraging contemporary research methods and development techniques of computing that is in line with the national and global context.

Mission of Department

The mission of the Department of Computer Science of AIUB is to educate students in a student-centric dynamic learning environment; to provide advanced facilities for conducting innovative research and development to meet the challenges of the modern era of computing, and to motivate them towards a life-long learning process.

Chapter 1

Introduction

Only vector images are used in computer graphics. Raster graphics are best used for non-line art images; specifically digitized photographs, scanned artwork or detailed graphics. Unlike raster images, vector graphics are based on mathematical formulas that define geometric primitives such as polygons, lines, curves, circles and rectangles. The advantages of Vector Image are, there is no upper or lower limit for sizing vector images. That's why, we used vector images to create our project. Since we are not printing the output on a paper but rather showing the output on a monitor. The output is being shown to us as a collection of pixels (as a raster image).

Chapter 2

Project Proposal:

In this project, we have designed a scenario for Washington, DC, City View. In this scenario, we have four different views. There are day views, night views, monsoon views, and winter views. The elements of the scenario are the sky, clouds, buildings, moving cars along with the bridge, river, boats, stars in the night view, rain in the monsoon view, and snowfall in the winter view. We have added the feature of changing weather as well as a day-to-night view. We can change the scenario from day to night and also into the monsoon as well as the winter season. We have added animations like cars, boats, and clouds that can move automatically.

Chapter 3

Project Design:



Chapter 4

Project Element:

- ❖ Building
- ❖ Watch
- ❖ Car
- ❖ Road
- ❖ Washington Bridge view
- ❖ Sky
- ❖ Cloud
- ❖ Sun
- ❖ Moon
- ❖ Rain
- ❖ Snowfall
- ❖ Ship
- ❖ Water

CONCLUSION:

We are making our project using an extension of code blocks named OpenGL. By using different functionalities of OpenGL, we have created a city view with various facilities.

We create this kind of demo project for a city, we can rebuild it in our real world.