COMPUTER GRAPHICS MINI PROJECT

THE SINKING SHIP

BY :

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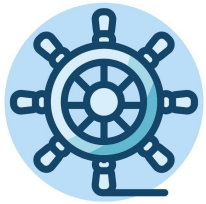


INTRODUCTION

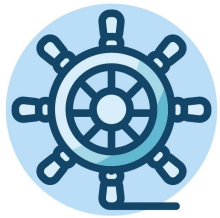
About the Problem :

The project consists of three scenes:

- The first scene just shows the ship, which is moving.
- The second scene will be the moving ship collides with rock and sinks.
- The third scene will be of the ship of rescue.

OpenGL serves two main purpose :

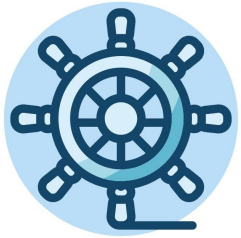
- To hide the complexities of interfacing with different 3D accelerators.
- To hide the differing capabilities of hardware platforms.



INTRODUCTION

About the Concept Used :

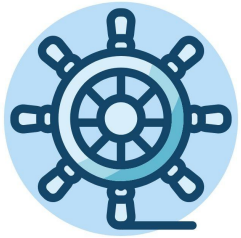
- OpenGL Utility Library (GLU)
- OpenGL Utility Toolkit (GLUT)
- To demonstrate the transformation and lightning, effects, different polygons have to be used.



OBJECTIVES

- The purpose of this project is to show cases that graphics provides some of the most natural means of communicating with a computer.

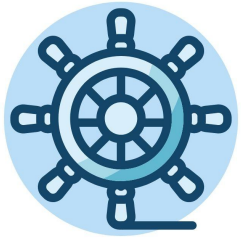
- “ A Sinking ship” project is one of the example Interactive computer graphics which is the most important means of producing pictures since the invention of photography and television.



PROBLEM STATEMENT

- Design and implementing a graphical animation of sinking ship which includes an animation of a ship moving and while moving collides with a rock and ship sinks in a sea using OpenGL functions.

- In this project all the things and shapes and colors are drawn and filled using OpenGL libraries and inbuilt OpenGL functions and C programming language.



SOFTWARE AND HARDWARE REQUIREMENTS:

HARDWARE REQUIREMENTS:

Processor: Intel i3
Hard disk: 250GB
Memory : 4GB RAM
Laptop or PC

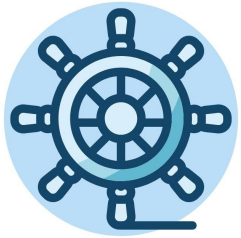
SOFTWARE REQUIREMENTS:

Platform: Dev c++
Programming Language: C++ using OpenGL
Operating System: Windows Operating System
Compiler: GCC Compiler
Graphics Library: GL/glut.h
OpenGL 2.0

IMPLEMENTATION

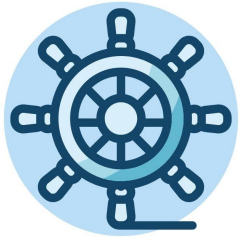
- C++ PROGRAM
  using
  OPENGL LIBRARIES

- Functions and modules of glut for the transformations.



FUNCTIONS & MODULES

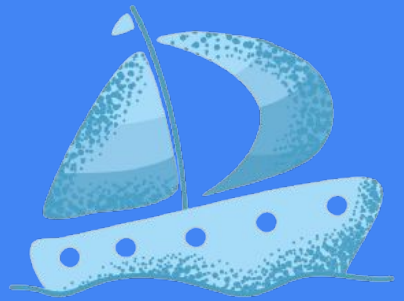
- glVertex*()
- glColor*( )
- gluOrtho2D(GLdouble left, GLdouble right, GLdouble bottom,GLdouble top)
- glClear()
- glClearColor()
- glLoadIdentity( )
- glMatrixMode(mode)



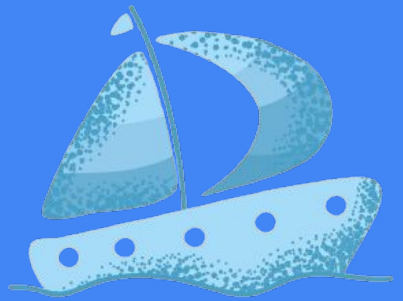
FUNCTIONS & MODULES

- void glutInit(int *argc, char**argv)
- void glutInitDisplayMode(unsigned int mode)
- void glutInitWindowSize(int width, int height)
- int glutCreateWindow(char *title):-
- voidglutMouseFunc(void *f(int button, int state, int x, int y)
- void glutKeyboardFunc(void(*func) (void))
- void glutDisplayFunc(void (*func) (void))
- void MouseFunc(void (*func) void))
- void glutMainLoop( )

DEMONSTRATION



CONCLUSION



THANK YOU !