ABSTRACT

This Computer Graphics Mini Project is made to illustrate the concepts and usage of OpenGL. The development of the game has large scope to learn computer graphics and visualization. We have used OpenGL utility toolkit to implement this 2D and 3D animated game, written in C++ language as it is the most basic programming language and easily understandable by a programmer. The OpenGL interface is user friendly and hence enables the user to interact efficiently with the system. It also includes three OpenGL libraries that is basic GL, GLU and GLUT. The various OpenGL functions such as glFlush(),glColor3f() etc. are implemented in this project.

Computer graphics is concerned with all aspects of producing images using a computer. The graphics software system OpenGL has become a widely accepted standard for developing graphics application. In this go_Korona_Go_Game, we have tried to raise awareness about the ongoing COVID-19 pandemic. We have highlighted the safety measures by portraying the significance of masks and vaccines throughout the game. As in real world people should wear mask and get vaccinated to be safe. Similarly in the game the player should collect mask and vaccine to win.

CHAPTER 3

SCREENSHOTS

Fig 3.1 The Introduction Scene

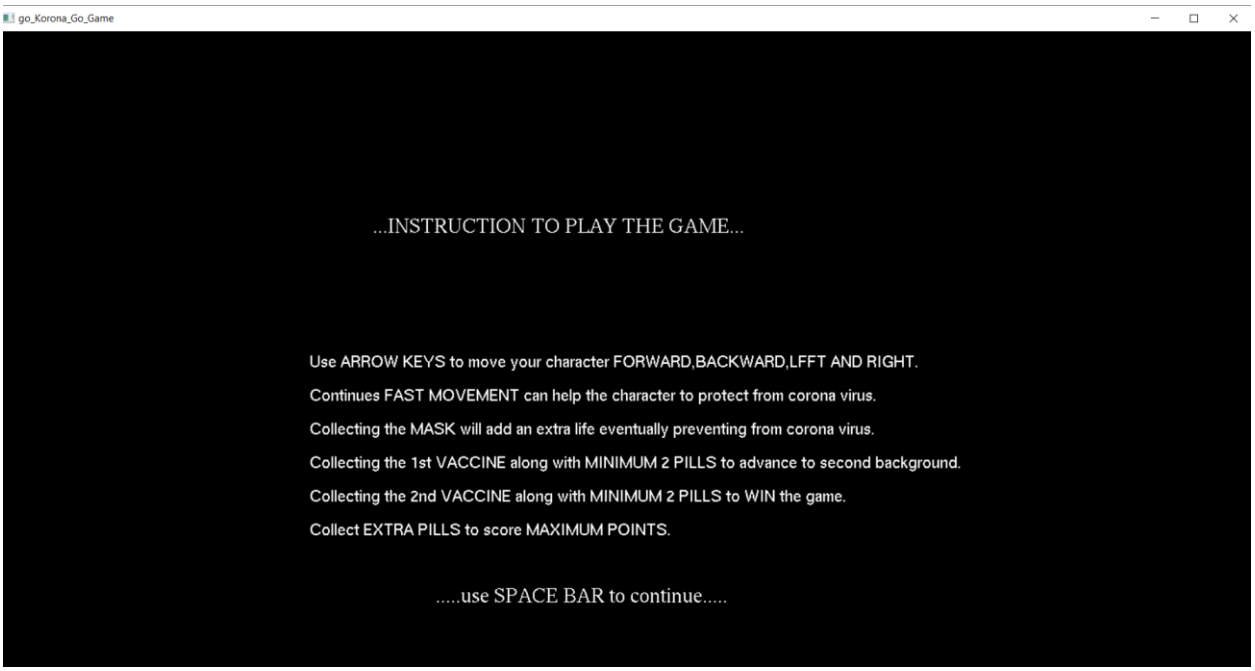

Fig 3.2 The Instruction Scene

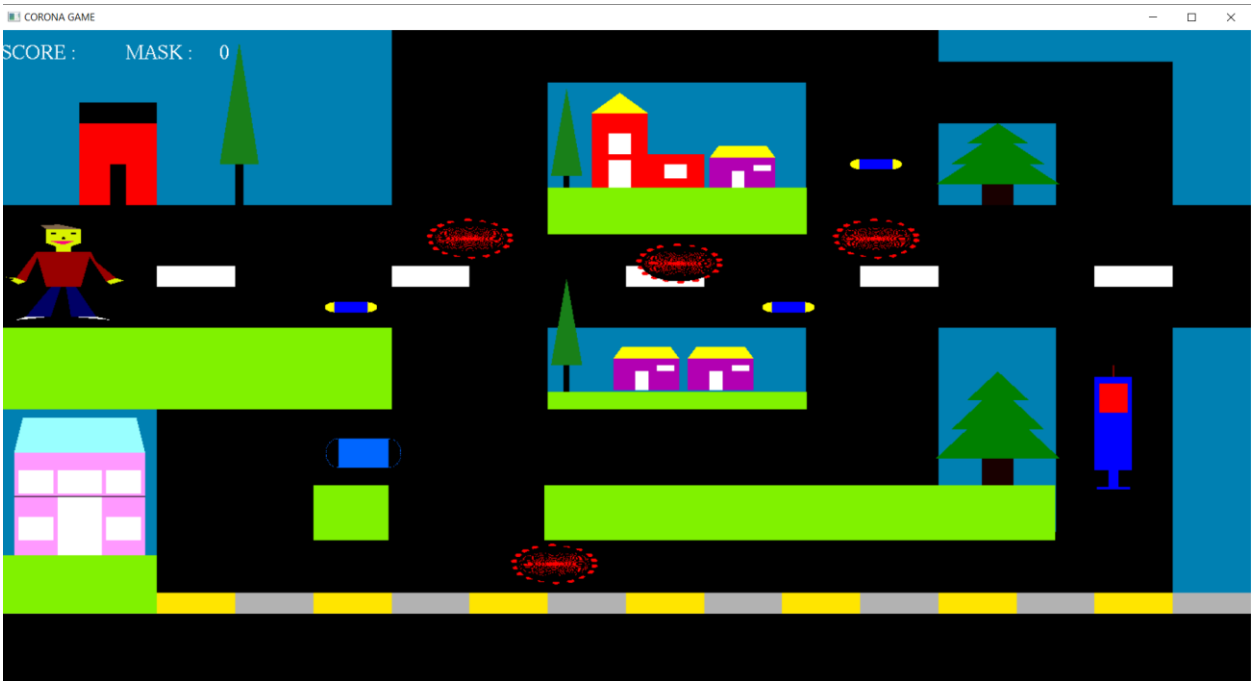

Fig 3.3 The First City Background Scene

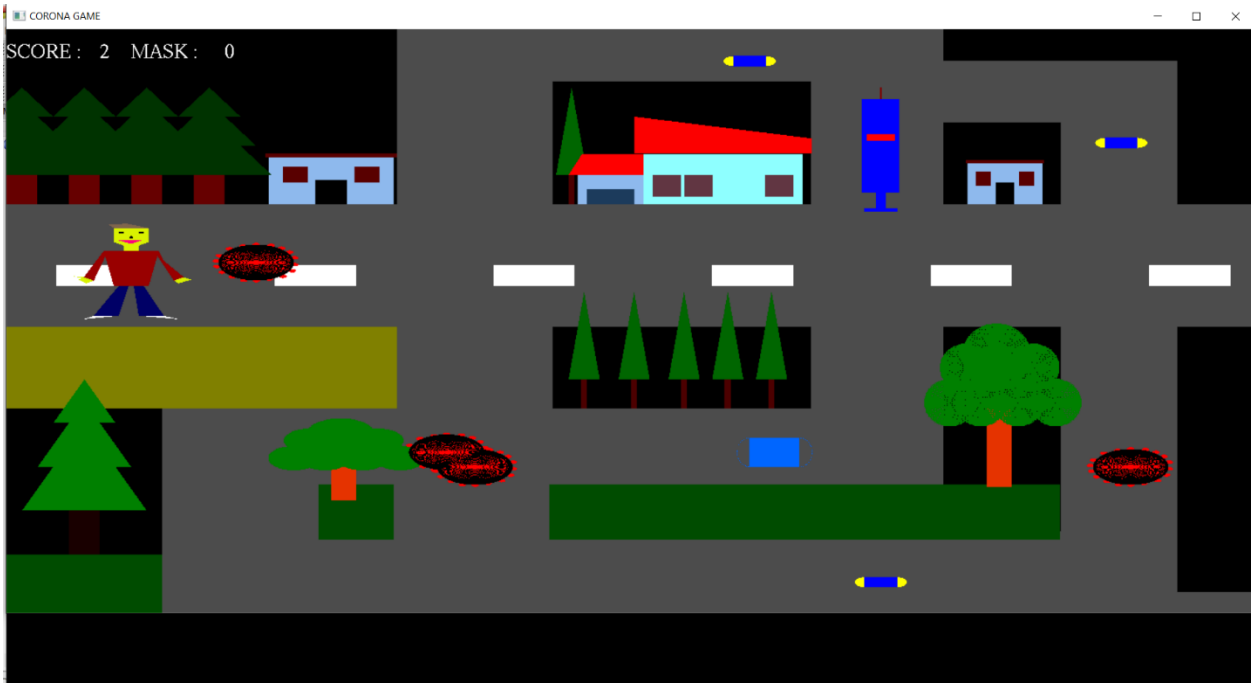

Fig 3.4 The Second City Background Scene

Fig 3.5 Game Wining Scene

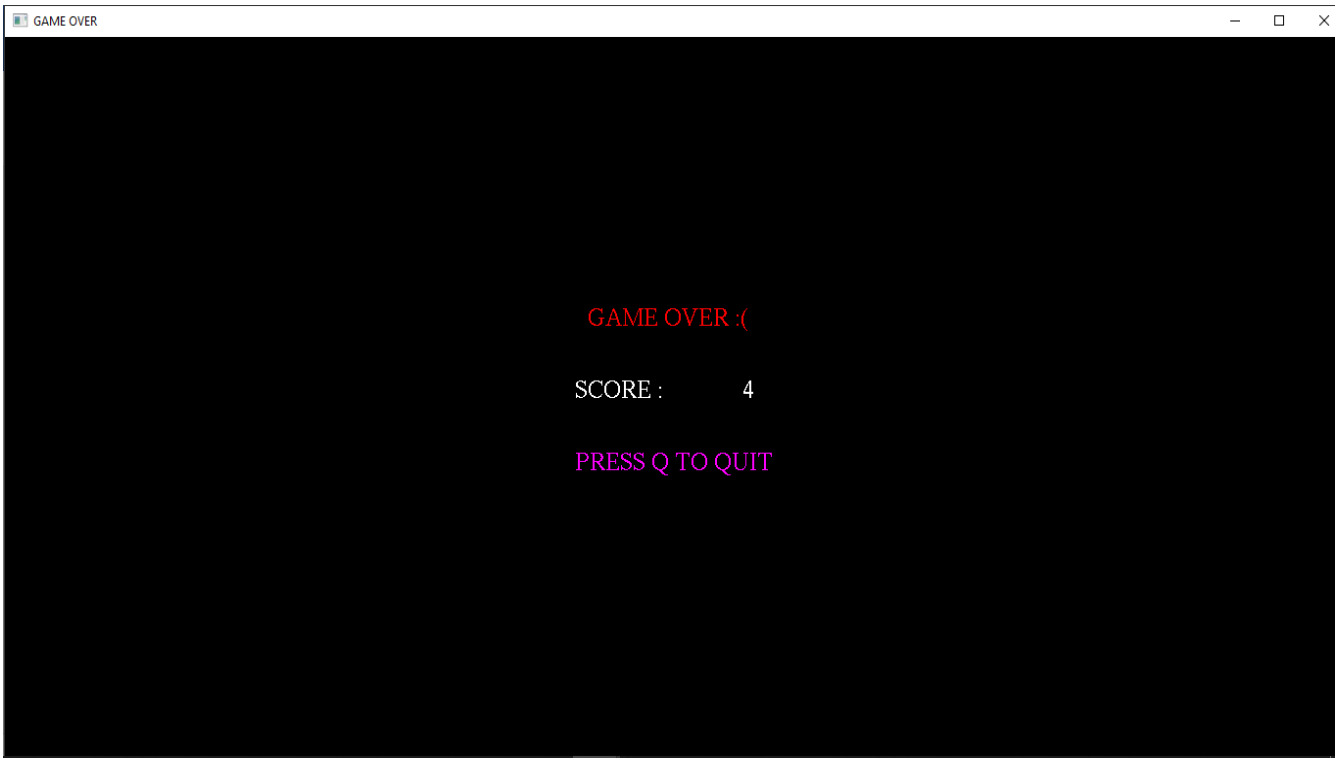

Fig 3.6 Game Over Scene

CHAPTER 4

CONCLUSION AND FUTURE WORK

5.1 Conclusion

Playing the game will bring awareness among the people regarding the danger caused by COVID-19. It will showcase the safety measures that could be adopted to reduce the risk of infection caused by virus. The designing and implementation of the project has enabled us to gain a better understanding of various computer graphics concepts and the various functions available to create animations. It provides a base for developing advanced projects that has a core demand in the Graphics and Animation Industry. The primary goal of this project is to showcase the concepts that we have learnt in theory and how these concepts can be used to visually demonstrate algorithms in computer science. By visually representing transformations in an animation form, the viewer gets a clear idea of it. The keyboard driven interfaces are used, to show the various scenes in the project. This reduces the complexity and improves the case with which any kind of user can run it. It also provides a base for developing advanced projects on realistic view in 2D that has a core demand in graphics and Animation Industry. The project has also helped in understanding theworking of computer graphics using OpenGL and the various concepts, functions and methodologies required for the development of this project.

5.2 Future Scope

In the future, we may convert this project to be a 3D project, with the necessary lighting and shading effects to give the game a more realistic appearance.