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| **Project Title** | Snake Game | | |
| **Project Code** | Text. | **Course Name** | **CSCI 452 3D Computer Graphics** |
| **Professor** | **Dr. Nashwa** | | |
| **TA** | **Zeyad Ezzat** | **Mentor Name** | Text. |
| **Team Name** | **Icons** | | |
| **Team Members** | **Abdelrahman Elgendy** | **18102358** | Text. |
| **BahaaEldin Maher** | **18101740** | Text. |
| **Problem Summary** | Snake game is the game that we all used to play while we were young with the old Nokia phone. Snake is the reference to the predator which search for his prey all over his land to hunt it and eat it. For example, you can keep crawling all over the map or the land to try to eat your prey without biting yourself accidently and die, you might also crash to a collider or a wall. They are also a reference to getting out of your safe zone where you can become an easy target for the other predators. And you win by eating all of your preys. | | |
| **Methodology** | Using C++, Opengl, freeglut and glew library. We have made a boundary function to set the boundaries of the map. And a prey function so it can be summoned randomly between the map boundaries and to keep it challenging for the snake. Also, there are two important function which are the erase and draw function to keep drawing and erasing the snake body to make it real to the players that the snake is really moving with its body following the head. And there is a keyboard function which allows the players to move the snake using the arrow keys of the computer. | | |
| **Achievements and Skills Gained** | High gameplay reactions to make sure the snake doesn’t strangle or hit a wall. Trying to focus to catch your prey without missing it and lose. The speed of the snake increases each time you eat a prey. Once you complete the required score you will win. | | |

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| **Main Results** | Enjoyable game and easy to control. Most of the people know it so its familiar too. It is intended for gamers all around the globe. Specifically, for those who want a chill and easy experience. And, not worrying about a high PC specs. |
| **Discussion and Conclusion** | Snake game is a small PC game that offers a new entertaining and fascinating experience for its users, and it revolves around a moving Snake controlled by the player trying to eat its preys and pass a different challenging levels. |
| **References** | <https://docs.microsoft.com/en-us/windows/win32/opengl/glvertex2i>  <https://github.com/GOKU-Instinct/SnakeGame-with-CPP-OpenGL/blob/master/Snake.cpp>  <https://docs.microsoft.com/en-us/windows/win32/opengl/glvertex2f> |
| **Future Work and Suggestions** | Make more maps and more levels for the snake to increase the difficulty and the adventure. |
| **Group Photo** |  |