Major Project Synopsis On

Space Shooter [Game]

By

RITIK SINGH [10621415]

HIMANSHU [10621217]

Under the Guidance of

Dr. KUSAN BISWAS



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Delhi Skill and Entrepreneurship University DSEU Rajokri Campus, Rajokri Delhi-110038

# Introduction

SPACE SHOOTER! Is a Space combat game in which our player (Turtle) will hit the beam to kill the invaders and earning the points This game is mainly developed for the Kids.

# Problem Statement

# You are tasked with developing a Space Shooter game using Python's Turtle module and Tkinter for basic GUI elements. The game should feature a player-controlled spaceship navigating through space, shooting down enemy spaceships while avoiding collisions with both enemies and allies

# Aim / Objective

It seems like you've already implemented a substantial portion of your game, which is great! Based on what you've already done, here are a few suggestions and objectives you might consider implementing next:

1. **Scoring System Enhancement**: You could enhance the scoring system by implementing different point values for different types of collisions. For example, hitting an enemy might give more points than hitting an ally.
2. **Levels and Difficulty**: You've already started implementing different levels based on the player's score. You could further expand this feature by introducing more challenging enemies, faster speeds, or different obstacles as the player progresses through levels.
3. **Sound Effects**: Enhance the gaming experience by adding sound effects for different actions such as firing missiles, collisions, or level transitions.
4. **Power-ups**: Introduce power-ups that the player can collect during gameplay to gain temporary advantages, such as increased speed, temporary invincibility, or more powerful missiles.
5. **Game Over Screen**: Instead of abruptly ending the game with a message box, create a game over screen that provides a summary of the player's performance and options to restart or quit the game.
6. **User Interface Improvements**: Enhance the user interface by adding visual elements such as a health bar, score counter, or level indicator to provide players with more information about their progress.
7. **Optimization and Refactoring**: Review your code to identify opportunities for optimization and refactoring, such as consolidating repetitive code into functions or improving the efficiency of collision detection algorithms.
8. **Documentation and Comments**: Ensure your code is well-documented with comments explaining the purpose of each function, class, and significant block of code to make it easier for others (and yourself) to understand and maintain i

# Technology Required

This section showing the technologies, Language and it’s modules which are used to develop the “SPACEWAR” game and the technologies are python language, python turtle graphics, python OS module, Python random module etc

Technical feasibility assesses the current resources (such as hardware and software) and technology, which are required to accomplish the user requirements in the software within the allocated time and budget.

According to our technical feasibility study, a user requires the following items install on his/her computer to run our Turtle betting race game successfully on his system without any problem-

* Python 3 should be installed on his system because if any lower version of python is installed then user must face some issues in the program functionality as we have uses some new function in our code which is introduced in Python 3 and not available in lower versions of python.
* For proper viewing of the application output user screen must be set into 1920x1020 resolution.
* The User must have basic knowledge of English as our all dialogs appear in English language.
* The User must have basic knowledge of Computer for properly playing the Game.

# Key Features

To Control the turtle player of the game the user has to use the Up, Down, Left and Right key of the PC, The function of these keys in the game is as follows:

**Up Key-** It will increase the speed of the player

**Down Key-** It will decrease the speed of the player

**Left Key-** It will move the player on some degree on left side.

**Right Key-** It will move the player on some degree on right side.

**Space Key-** Release the missile

# Conclusion

The Main Purpose of developing this application to create a “Space Shooter” Game which will be playing by the kids. Many kids enjoy the playing games. Now a day’s games become popular in the Worlds. No one has not to play the games. Today’s in the world games becomes a big market place in worlds. When some games prove the money when the people play the game and because of this offers people taking more interest play the games.

# References

1. <https://www.w3schools.com/python/>
2. <https://docs.python.org/2/library/turtle.html>
3. <https://docs.python.org/3/library/random.html>
4. <https://docs.python.org/3/library/tk.html>