

SoccerSim

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1 Introduction

I want to practice my coding skills. So I will create a Soccer simulator, based one of my first homeworks in Advanced Programming; which was a console Quiddich match simulator.

For the project I want to try and use several of the things I learned afterwards in the course.

I'll do it in *C#* as I used that language in the course, however I could also try doing it in Python or *C++*.

PS: This will also help me remember how to write TEX files

2 Project Definitions

2.1 What I want to do

Here are some ideas that I want to try:

- Simulate a Soccer game with most of its rules
- Each player behaves independently following certain logic:
 - What is the role of the player (Goalkeeper, Defender, Midfield, Attacker)
 - The team is attacking or defending
 - What is the position of the player
 - What are the positions of the other player
- Make it chance-based for decisions and outcomes
 - A player could try to make a difficult shot to the net, instead of an easy (and more intelligent) pass
 - The player may miss a pass to a teammate that is alone
 - A Goalkeeper may make score a goal by mere chance
- Add stats to the players, which will increase their success chances for the plays
- Show all in a simple graphical way
- Maybe add user intervention by creating players of its own
- Maybe add a tournament mode

2.2 What I want to remember

For This project I want to use these concepts (at least):

- OOP
- Graphical Interfases
- MultiThreading
- Polymorphism

2.3 What I want to show

Use a very basic way to show the game:

- Have a fixed background
- The ball and players represented with simple sprites (circles)
- Have the score and time showing in a corner

