C#
FUNDAMENTALS

WE DID A LOT...

- Introduction to C# and .NET
- Variables
- Data types Primitieve typen vs objecten
- Enums
- Logic operators
- If / else
- Switch
- While
- For

- Object oriented programming
- Methods
- Scope
- Encapsulation
- Access modifiers
- Static
- Inheritance
- Polymorphisme

… AND EVEN MORE!

- Classes
- Abstract
- Interfaces
- Partial
- Collections
- Foreach
- LINQ
- Multithreading

- Exceptions
- Read / write data
- Constants
- Sealed
- Dynamic

GAME TIME!

- Round up fun exercise to practice (most) of the things we discussed during this course

PROGRAM A FOOTBALL TOURNAMENT

- Yearly tournament

- 8 teams, 4 professional and 4 amateur
  - Professionals have a budget and a sponsor
  - Amateurs have a mascotte
  - Both type of teams can play against eachother

- 3 rounds, losing means the team is out
  - First round 4 matches
  - Second round 2 matches
  - Third round, finals

BUILD THE TEAMS

- Build the teams from a method that gives all the input. The team name, type of team and the players etc are hard-coded in this method

- The rounds should have random opponents, so every tournament that is played has (possibly) different opponents each round

- At the beginning of each round, the teams playing against each other should be logged, after each round, the scores will have to be logged

PLAYING MATCHES

- Professional team has a 70% chance to win from an amateur team

- Draw is not possible, decide how to solve this: penalties?

- Bonus: play the match by minute and have possible football action for every minute to take place and log this to a separate file with detailed match information

- Bonus: separate your logic for what team is winning by adding features to each player, such as position in the field and chances that the keeper will stop the ball or that a player will score or get the ball back from the other team

OTHER MUST HAVES

- Write unit tests for all methods in your application

- Make sure to add necessary comments to explain what your code is doing

- Separate the logic into separate files, classes methods

- Catch exceptions where necessary

- OOP

ANY QUESTIONS?

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