

# DOTNET CHALLENGE FINALS

**WANTED**  
**.NET** WARRIOR



**1<sup>st</sup> ROUND**  
10 MINUTES  
15 QUESTIONS

**FINALS**  
07/12/23  
@ DELEN HQ

**editx** [WWW.EDITX.EU](http://WWW.EDITX.EU)

# Participants online fase .NET Challenge

- > 200 participants
  - Professionals: 70%
  - Students: 30%
- Average total score: 46 %
  - Professionals' average score: 49%
  - Students' average score: 36%
- Highest score:
  - Professional: 86,67%
  - Student: 73,33%



# Introduction

- Discretionary asset management
- Family business
- 85 years of experience
- 35 billion in management
- 570 employees
  - IT: 150 employees
- 15 offices

# Timeline

- 17h45: Doors open
- 18h15: Prepare to take your seat
- 18h20: Introduction
- 18h30: Explanation assignment
- 18h35: Start contest
- 21h05: End of the contest + drinks & afterthoughts
- 21h45: Prize ceremony and closing word





# Assignment overview

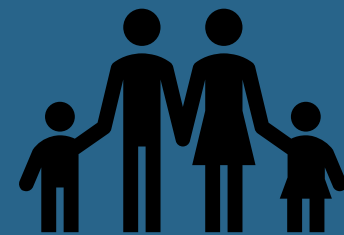
- Simulate the matching of Clients with Client Managers over a certain period
- Input
  - Number Years to simulate
  - List of **Clients** with the following information
    - Unique **name**
    - A **Wealth Class** (between 1 and 100)
    - **StartYear**: earliest year the client may be used in the simulation
    - List of unique **Interests**
  - List of **Client Manager** with the following information
    - Unique **Name**
    - **ClientsPerYear**: Number of unique clients they can provide their services for
    - List of unique **Interests**



# Goal

- Maximize the overall score for the whole simulation
- Assignment score = score for all meetings over all years
- SCORE for one meeting:

$$score = \left( \frac{\# \text{ Matching interests}}{\# \text{ Client interests}} \right)^2 * \text{WealthClass}$$



Family Doe  
Wealth Class = 50

Interests:

- Travelling
- Basketball
- Painting
- Reading



Employee Sam  
Interests:

- Travelling
- Basketball
- Woodwork
- Reading
- Golf

$$score = \left( \frac{3}{4} \right)^2 * 50 \sim 28.13$$



# Output file validation

- Only use client or client manager names provided in the input file
- If YearsToSimulate is 10 and the client manager's ClientsPerYear is 20, each client manager should have exactly 10 lines with at least 1 Client and at most 20 clients
- No solution line should have a Year  $\geq$  YearsToSimulate
- A client should not appear in a solution output line with a Year less than their StartYear
- Once a client has had a meeting, they should get a meeting in all subsequent years
- A client should only have a meeting with one client manager per year
- A client can switch client managers between the years

# What do you get from us?

- Input files in JSON format
- Quick starter Solution with skeleton setup
- C# helper classes
  - All entities
  - Parser from JSON -> Assignment
  - Formatter from Solution Lines -> Output
- Feel free to change these files if you wish, but make sure the output format does not change!
- API to upload your output files

<https://github.com/TimTuijn/DPB-DNC-2023>