

CNG 213-Data Structures

Assignment I of IV

Deadline: 17.03.2019 midnight

(7.5% of the actual mark)

Your code will be tested by Moss against cheating attempts, any cases suspected of plagiarism will result in partial or total loss of grade and might result in further disciplinary actions.

Please submit your code as a C file on ODTUCLASS before the due date.

[100 points] Write a program that maintains a team of football players as follows.

- a) [16 points] Write the struct definition for a **Player** that captures the footballer's name, age, and birth date where the latter is also a struct of **Date**.
- **b)** [16 points] Write a function **CreateFootballPlayer** that takes name, age, and date, and returns a pointer to the **Footballer** struct defined in (a).
- c) [16 points] Write the struct definition for a **Team** that captures the team name and number of players in the team and a list of players. Use an array to define the list of players assuming that the team cannot have more than 22 players.
- **d)** [16 points] Write a function **CreateEmptyTeam** that takes the team name as input and returns the **Team** struct defined in (c).
- e) [16 points] Write a function **AddPlayer** that takes a pointer to **Team** struct and a pointer to **Player** struct and adds the player to the team's player list.
- f) [10 points] Write a function **StoreTeam** that takes a pointer to **Team** struct and a pointer to text file then stores the team into the file. Use ';' to separate between player details, and ',' to separate between players.
- g) [10 points] Write a function **ReadTeam** that takes a pointer to text file then reads the content into a new **Team**. Since the team in file already exists, you are expected to add 3 to all player ages and append character 'y' to all player names.