University of Leeds

Footballer

Application Programming Interface

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Table of Contents

Hierarchical Index

Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Date

4

Height

9

Person

10

Footballer

5

Weight

11

Data Structure Index

Data Structures

Here are the data structures with brief descriptions:

Date (Struct for initialising the date)

4

Footballer (Class for defining and updating key characteristics of a footballer)

5

Height (Struct for initialising the height)

9

Person (Class for defining and updating key characteristics of a person)

10

Weight (Struct for initialising the weight)

11

Data Structure Documentation

Date Struct Reference

Struct for initialising the date.
`#include <Person.h>`

Data Fields

int **day**
Month **month**
int **year**

Detailed Description

Struct for initialising the date.

Date Struct

The documentation for this struct was generated from the following file:
Person.h

Footballer Class Reference

Class for defining and updating key characteristics of a footballer.
`#include <Footballer.h>`
Inheritance diagram for Footballer:

Public Member Functions

Footballer (std::string forename, std::string surname, **Date** dob, **Height** height, **Weight** weight, Position position, std::string club, int apps, int goals, int price)
void **set_club** (std::string club)
initialises the player's club
void **set_position** (Position position)
initialises the player's position
void **set_goals** (int goals)
initialises the amount of goals a player has scored
void **set_apps** (int apps)
initialises the amount of appearances a player has scored
void **set_price** (int price)
initialises the purchase price of a player
std::string **get_club** ()
Gets the player's club.
std::string **get_position** ()
Gets the player's position.
int **get_goals** ()
Gets the player's total number of goals scored.

int **get_apps** ()
Gets the player's total number of appearances.

int **get_price** ()
Gets the player's price.

void **scored** ()
Adds an additional goal to the cumulative total.

void **played_game** ()
Adds an appearance the cumulative total.

void **hat_trick** ()
Adds an additional 3 goal to the cumulative total.

void **release_on_a_free** ()
Sets price to 0 pounds and sets player to Free agent, not bound by a contract.

Detailed Description

Class for defining and updating key characteristics of a footballer.

Footballer class

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```
#include <iostream>
#include "Footballer.h"

int main() {
  // create a specific footballer
  Footballer player("Wayne", "Rooney", {24, Month::Oct, 1985},  {5,11}, {10,5},
  Position::Forward, "Washington DC", 119, 53,0);
  std::cout << "My favourite footballer is " << player.get_forename() << " "
  << player.get_surname() << ".\n";
  std::cout << "He is  " << player.get_height()  << "tall\n";
  std::cout << "He is " << player.get_weight() << "\n";
  std::cout << "He currently plays for " << player.get_club() << ".\n";
  std::cout << "He has scored " << player.get_goals() << " goals in "
  << player.get_apps() << " appearances.\n";
  // use some of the class methods to change the data
  player.played_game();
  player.scored();
  player.hat_trick();
  // print out the updated data
  std::cout << "He has now scored " << player.get_goals() << " goals in "
  << player.get_apps() << " appearances.\n";
  std::cout << "He currently is worth " << player.get_price();
  player.release_on_a_free();
  std::cout << "He currently plays for " << player.get_club() << ".\n";
  std::cout << "He currently is worth " << player.get_price();
  return 0;
}
```

Member Function Documentation

int Footballer::get_apps ()

Gets the player's total number of appearances.

Returns:
the total number of appearances as a integer.

std::string Footballer::get_club ()

Gets the player's club.

Returns:
the club of the player as a string

int Footballer::get_goals ()

Gets the player's total number of goals scored.

Returns:
the total number of goals scored as a integer.

std::string Footballer::get_position ()

Gets the player's position.

Returns:
the position of the player as a string

int Footballer::get_price ()

Gets the player's price.

Returns:
the price of the player as a integer .

void Footballer::set_apps (int *apps*)

initialises the amount of appearances a player has scored

Parameters:

apps	Total of appearances. Stored as an integer.

void Footballer::set_club (std::string *club*)

initialises the player's club

Parameters:

club	club is stored as a string. Initialised as a Free agent.

void Footballer::set_goals (int *goals*)

initialises the amount of goals a player has scored

Parameters:

goals	Cumulative total of goals scored. Stored as an integer.

void Footballer::set_position (Position *position*)

initialises the player's position

Parameters:

position	A player's position is initialised as a Foward. Later it can be chosen to be one of: Goallkeeper, Defender, Midfielder or Foward. All of which are string type variables.

void Footballer::set_price (int *price*)

initialises the purchase price of a player

Parameters:

price	Initialises price to £0. Stored as an integer.

The documentation for this class was generated from the following files:

Footballer.h
Footballer.cpp

Height Struct Reference

Struct for initialising the height.
`#include <Person.h>`

Data Fields

int **feet**
float **inches**

Detailed Description

Struct for initialising the height.

Height Struct

The documentation for this struct was generated from the following file:

Person.h

Person Class Reference

Class for defining and updating key characteristics of a person.
`#include <Person.h>`
Inheritance diagram for Person:

Public Member Functions

Person (std::string forename, std::string surname, **Date** dob, **Height** height, **Weight** weight)
void **set_forename** (std::string forename)
void **set_surname** (std::string surname)
void **set_dob** (**Date** dob)
void **set_height** (**Height** height)
void **set_weight** (**Weight** weight)
std::string **get_forename** ()
std::string **get_surname** ()
std::string **get_dob** ()
std::string **get_height** ()
std::string **get_weight** ()

Detailed Description

Class for defining and updating key characteristics of a person.

Person class

The documentation for this class was generated from the following files:
- Person.h
- Person.cpp

Weight Struct Reference

Struct for initialising the weight.
`#include <Person.h>`

Data Fields

int **stones**
float **pound**

Detailed Description

Struct for initialising the weight.

Weight Struct

The documentation for this struct was generated from the following file:
- Person.h

Index