

1. The TV broadcast network "Telebrinco" needs an information system to manage the F1 motor sport competition so that journalists have the needed information during TV shows. The system must store information about Teams (name and year of creation). Each season a team is inscribed indicating the 3 drivers that will compete and the director of the team for the season. A driver cannot be simultaneously a director of a team on the same season. For every person the system must store the following information: id number, name, telephone number and age. Besides, if a person is a driver we need to know his/her winning races, the circuit and the season in which each race was won and the different teams in which he/she has been enrolled every season. Additionally, journalists want information about each circuit: length, capacity, country (this information is fixed and does not change over seasons). On each circuit and season at most one race can take place and, if it takes place, the system must store information about: drivers who participate; the six winning drivers at the end of the race together with the time it took them to complete the race; and the drivers that could not finish the race together with the reason for abandoning (text description).

Question: Obtain the class diagram for this system.

2. Increasing levels of criminality have resulted in "The Incredibles" being called on duty after years of inactivity. Mr Incredible has contacted "IDP-Exams" so that a tool is built to manage an information system about crimes taking place in the whole world. Whenever a crime is detected, it is reported to the central office where data about the place (latitude, longitude and name), date and who the eventual criminal might be are collected. Immediately, a message is sent to the closer hero who is adequate for the eventual criminal. Criminals are categorized according to its dangerousness into: Beginner, Villain and Antagonist. Heroes are classified according to its power into: Novice, Advanced, and Superhero. Every Superhero has its corresponding Antagonist, so that he is the only one able to fight against it. Whenever a crime occurs, the closest hero with best chances to win is called on duty. For instance, a Novice hero is never called on duty to fight against a Villain. Once the fight is over, the result is reported and collected indicating whether the hero arrived on time to the crime place, and who won the fight (the villain or the hero). Moreover, a message is passed to the government so that the possible damages are estimated. Crimes in which damages exceed 100.000.000€ are catalogued as "donkey-action" and a special committee is created to make a report and investigate possible responsibilities. The committee is formed by 3 specialist-appraisers, and the defendant of the hero (every hero has his defendant). If the committee concludes that the hero is responsible for the damages then the hero can be removed as a hero and converted into a specialist-appraiser. Every specialist appraiser was in the past a hero that had in the past a negative damages report. After 3 years serving the government, passing the course "How to become a good superhero?" and passing a psychology test, a hero may be readmitted as a full hero again.

Question: Obtain the class diagram for this system.