Progettazione - Parte A

1. The following relations are given (primary keys are underlined):

   CROSS_COUNTRY_RACE(<u>RaceCod</u>, RaceName, Category, City, Region, Date, OrganizerCod)
   ORGANIZER(<u>OrganizerCod</u>, OName)
   PARTICIPANT(<u>ParticipantCod</u>, PName, BirthDate, Address, City, Region)
   PARTICIPANT_PARTICIPATES_RACE(<u>ParticipantCod</u>, <u>RaceCod</u>, Rank)

   Write the following queries

   (a) *Mandatory* exercise in algebra (4 points):
       Select the code and the name of the persons who have organized at least two cross country races for the same category in different cities.

   (b) *Mandatory* exercise in SQL language (5 points):
       Select the name of the persons who have organized in the Piedmont region at least one cross country race for the category 'Under 14' but no cross country race for the category 'Under 20'.

   (c) *Optional* exercise in SQL language (5 points):
       Select the name of the participants who have partecipated to all cross country races held in their region but never ranked first in any cross country race.