

- 1) An information system called "Guguel Street View" must be developed to allow **users** to virtually navigate the streets of a city exploring their pictures and points of interests with opinions left by other users. The **system stores information** about cities (name, population, country). Each city consists of streets. Every street has a name and consists of an ordered sequence of sections. Each section is characterized by a starting geospatial position (latitude, longitude), and ending geospatial position and by a range of home numbers contained within the section (min home number, max home number). Each section has 8 photographs that describe it (north, northeast, east, ...). Each photograph is described by its size in bytes, its dimensions (width, height in pixels) and a string representing the physical path where it is stored on disk. Each section may contain several points of interest (POI) such as bars, stores, restaurants, monuments, etc. A POI may be in several sections of different streets (e.g. if the POI is at a corner or occupies a whole block). If the POI appears in a photo of a section the user may click on it with the mouse to obtain additional information about it. Every POI that appears in a photo is located within a region of the photo. A region is a rectangle within the photo that is expressed by two coordinates (top left, bottom right). The POI is catalogued as belonging to a type. For example a POI that is a Chinese restaurant and cafeteria could be catalogued by using three types "restaurant", "Chinese", "cafeteria" (there are a number of predefined types that are described with a numerical code and a name). The POI is also described by its creation date and a text that is **written by its owner** to describe it. Users may also add opinions about POIs. Each opinion has a date, a text and a numerical value in the range 0 to 10. A given user may write several opinions in different dates for the same POI. The system must be capable of listing all the opinions related to a POI grouped by user. A user is defined by a nick name, his(her) real name and age. We also want to know the way in which users navigate over sections and POIs. A navigation is a sorted sequence of sections in which several POIs may or may not be observed (by clicking over the regions on the pictures associated to the sections). The system must store the date and time in which a navigation starts, the visited sections and the POIs visited in each section. A section may appear several times in a navigation and each time different POIs of the section may have been observed.

Question: Build the class diagram for the previous system