按照下列描述进行数据库设计，主要完成需求分析、概念设计与逻辑设计。

Academy Cruises Company (ACA) has decided that their manual system of booking passengers onto their ships will not hold up when they get a new one next month. They currently have two ships (not including the new one) and will probably expand to five or six by 2015. They are named “Goodsea” and “Goodwind,” and the new one will be called “Goodsky.” Eachship has a specific passenger capacity and registry. Registry is the country that the ship is registered with. They do not need to worry about tonnage or draft or anything else about the ship.

Each year ACA puts out a brochure with information about their cruises. Every cruise has a name and duration in number of days. They offer three, seven, eleven, and fourteen day cruises. Each cruise also has a specific ship assigned to it; some people want to go on only the newer ships. For each cruise, there are different port stops. A three day cruise will have only one stop, always on the second day of the cruise; a seven day cruise will have three port stops. Cascade varies port stops depending on where the cruise originates. For example, the Los Angeles, CA cruises go to Mexico ports like Cabo San Lucas and Acapulco, the Miami cruises go to the Bahamas and the Virgin Islands, and the Anchorage cruises make stops all through Alaska. Depending upon the length of each cruise, the cruise will make port calls on different days out.

Passengers book a given cruise, which has a certain length and number of ports. Depending on the cruise that they pick, customers are informed of the available cabins. After the passenger chooses a cabin, they can get a price. The price also depends on the number of people in the cabin and the “class” of the cabin. After the cabin is booked, it is then removed from the list of available cabins unless the passenger indicated that they want to share with someone else. If the cabin can hold four people, and they are traveling alone, then the price will be cheaper if they share. After passengers are booked and a deposit is received, the travel agent who made the reservation will receive the commission for the cruise.

Academy Cruises Company (ACA) 已决定，当他们在下个月获得新系统时，他们的手动预订乘客登船系统将失效。他们目前有两艘船（不包括新的），到 2015 年可能会增加到五六艘。它们被命名为“Goodsea”和“Goodwind”，新的将被称为“Goodsky”。每艘船都有特定的载客量和注册地。注册地是船舶注册的国家。他们不需要担心吨位、吃水或其他关于船舶的事情。

每年 ACA 都会发布一本小册子，其中包含有关其游轮的信息。每条游轮都有名称和天数。他们提供三日、七日、十一日和十四日游轮。每艘游轮还分配有一艘特定的船；有些人只想继续乘坐较新的船。每次游轮都有不同的港口停靠点。三天的游轮只有一站，总是在游轮的第二天；为期 7 天的游轮将停靠三个港口。 Cascade 会根据游轮的出发地改变港口停靠点。例如，加利福尼亚州洛杉矶游轮前往卡波圣卢卡斯和阿卡普尔科等墨西哥港口，迈阿密游轮前往巴哈马群岛和维尔京群岛，安克雷奇游轮停靠阿拉斯加全境。根据每次游轮的长度，游轮将在不同的日子停靠港口。

乘客预订给定的游轮，该游轮具有一定的长度和港口数量。根据他们选择的邮轮，客户会被告知可用的船舱。乘客选择舱位后，可以获得价格。价格还取决于机舱内的人数和机舱的“等级”。客舱被预订后，它将从可用客舱列表中删除，除非乘客表示他们想与其他人合住。如果一个小屋可以容纳四个人，而且他们是一个人旅行，那么他们合租的话价格会便宜一些。乘客预订并收到押金后，预订的旅行社将收到游轮的佣金。

函数依赖：仅包含非平凡函数依赖

机舱人数，等级，基础价格 – 价格

游轮 – 巡航天数

巡航天数 – 港口数量

港口数量，出发港口 – 途径港口

游轮长度 – 停靠时间

游轮 – 长度