# 《面向对象编程与设计》课程作业

# 一、作业1

## 1、任务描述：

对下述旅游信息系统的需求描述进行建模，设计UML图，并用UML绘图工具绘制UML类图。

The tourism information system

The tourism information system maintains a catalog of tourism products and tracks the tourist routes. There are four kinds of products: domestic tourism, peripheral tourism, outbound tourism，and cruise tourism. All products are identified by a unique code.

The information for each domestic tourism product includes：

* code
* title
* departure
* destination
* tourist route
* selling price
* The travel agency name

The information for each peripheral tourism product includes：

* code
* title
* departure
* destination
* tourist route
* product feature description
* selling price
* The travel agency name

The information for each outbound tourism product includes：

* code
* title
* departure
* destination
* tourist route
* stay of days
* selling price
* The travel agency name

The information for each cruise tourism product includes：

* code
* title
* departure
* destination
* cruise company
* stay of days
* tourist route
* selling price
* The travel agency name

The system also contains a catalog of tourist routes. Each tourist route has a unique code in addition to a name. The system maintains a responsible person for each tourist route. The system stores an ID and the information about this person (name, home telephone number, QQ and email). The list of tourist attractions for each tourist route is tracked by the system. Each tourist attraction includes the name, type, and the province that it belongs to.

In the tourism information system, the user should be able to:

* Add a product into the system
* Add a route into the system
* Display the catalog by listing the code, title, departure, destination and selling price of each product.
* Display the catalog by listing the code, the responsible person and the list of tourist attractions of each route.
* Look up the information of the product which contains the specified departure and destination
* Look up the information of the route which contains the specified attraction

Look up the information of the routes which contains the specified responsible person.

旅游信息系统

旅游信息系统维护一个旅游产品目录，并跟踪旅游路线。产品分为四种类型：国内旅游、周边旅游、出境旅游和邮轮旅游。所有产品都有一个唯一的代码进行识别。

每个国内旅游产品的信息包括：

代码

标题

出发地

目的地

旅游路线

售价

旅行社名称

每个周边旅游产品的信息包括：

代码

标题

出发地

目的地

旅游路线

产品特征描述

售价

旅行社名称

每个出境旅游产品的信息包括：

代码

标题

出发地

目的地

旅游路线

停留天数

售价

旅行社名称

每个邮轮旅游产品的信息包括：

代码

标题

出发地

目的地

邮轮公司

停留天数

旅游路线

售价

旅行社名称

系统还包含一个旅游路线目录。每条旅游路线都有一个唯一的代码和名称。系统维护每条旅游路线的负责人。系统存储该负责人的ID及其信息（姓名、家庭电话号码、QQ和电子邮件）。系统跟踪每条旅游路线的旅游景点列表。每个旅游景点包括名称、类型和所属省份。

在旅游信息系统中，用户应该能够：

将产品添加到系统中

将路线添加到系统中

通过列出每个产品的代码、标题、出发地、目的地和售价来显示目录

通过列出每条路线的代码、负责人和旅游景点列表来显示目录

查找包含指定出发地和目的地的产品信息

查找包含指定景点的路线信息

查找包含指定负责人的路线信息