

Университет ИТМО

Факультет ПИиКТ

Архитектура программных систем

Лабораторная работа №1

Выполнили:

Хуан Сыюань Р33101

Преподаватель:

Перл Иван Андреевич

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## **Задание**

Выбрать любую реально существующую систему и описать её в терминах UML. Желательно, чтобы система была не полностью информационной, но опиралась на информационную систему как показано в примере на лекции (Point of sale). Необходимо описать границы системы на разных уровнях, а также описать сценарии использования для нескольких Акторов.

## **Требования к системе**

### **Таobao(P2P)**

#### **Функциональные:**

##### ***Требования владельца сайта:***

1. The website must contain advertising banner blocks so that the website owner can collect advertising fees.
2. The website must provide the ability to edit products. List products, edit prices, delete products
3. The system should provide statistics on sales volume.
4. The homepage of the website should contain the contact information of the merchant and the logistics information of the goods.
5. The website must display the customer's evaluation of the product and the shopping experience.

##### ***Требования пользователей сайта:***

1. The website must provide product classification according to the delivery address and price range
2. The website must be able to search for products by name and have the ability to search for vague information.
3. The website must be able to sort products by price, evaluation, distance and other factors.
4. The website should allow customers to evaluate products

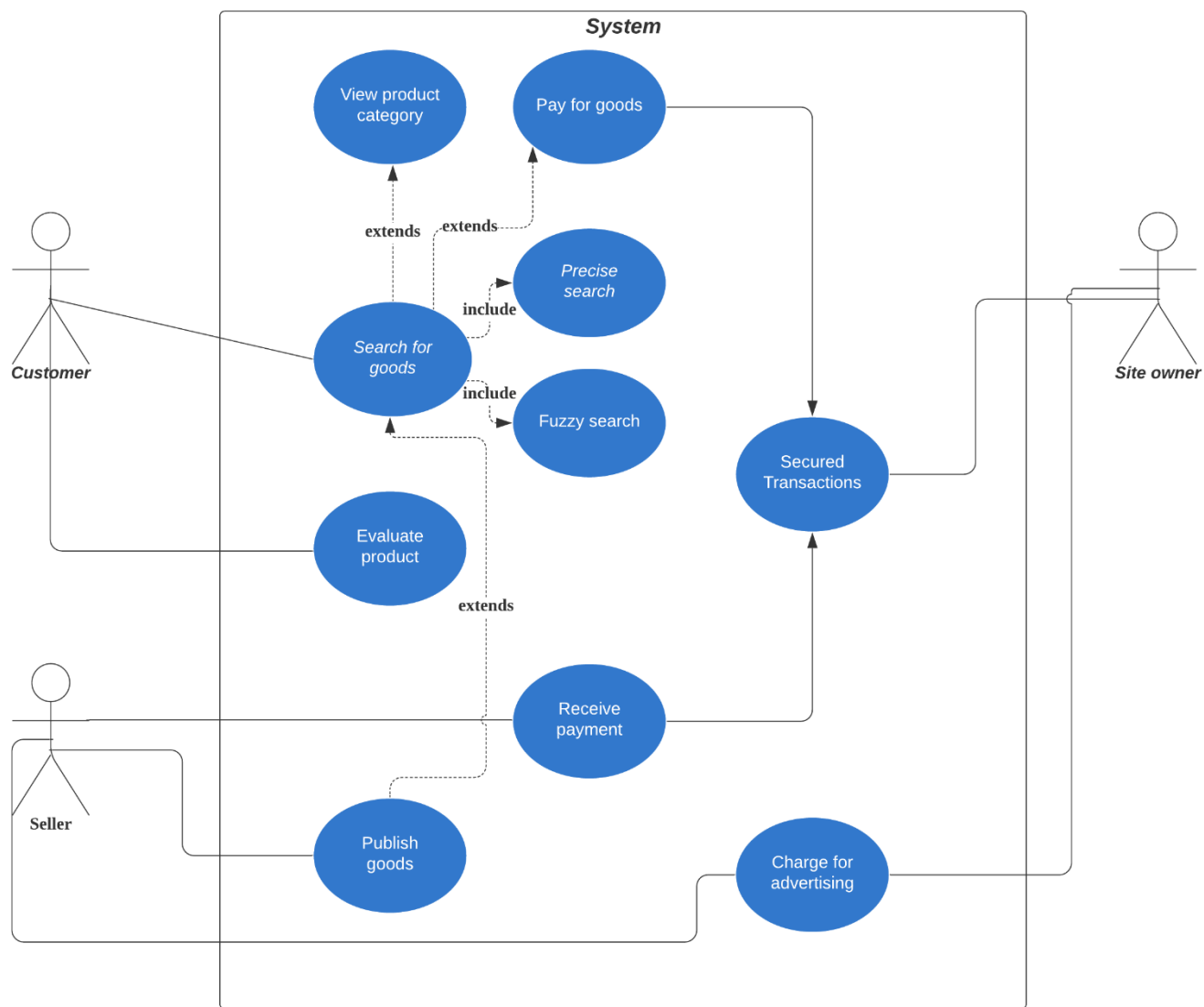
5. This website shall guarantee the entire transaction process.

**Нефункциональные:**

1. The website must run normally in a modern browser (Chrome, Firefox, Edge, IE...).  
There are apps that can run on Android and iOS (recent versions)
2. The website must operate stably and can host up to 80 million users (China's online shopping is basically popular).
3. The site must be accessible to users on the Internet-by typing in the address and using a search engine on the Internet to search for results.
4. The website needs to require sellers to register with their real names as a guarantee.
5. The backend of the website must be written in JAVA or PHP. Apps should be written in Kotlin and Swift.

№	ID	Полезность	Трудоемкость, человеко-час	Стабильность
<i>Требования владельцев сайта</i>				
1	FR1	Should have	2	Low
2	FR2	Must have	5	High
3	FR3	Can have	1	Mid
4	FR4	Must have	3	Low

5	FR5	Should have	2	Low
<i>Требования пользователей сайта:</i>				
1	FR6	Should have	3	High
2	FR7	Must have	4	Mid
3	FR8	Can have	3	Mid
4	FR9	Should have	2	High
5	SR1	Mush have	10	Low
<i>Нефункциональные требования</i>				
1	N1	Should have	8	Low
2	N2	Should have	10	Low
3	N3	Must have	3	High
4	N4	Should have	7	Low
5	N5	Must have	2	High



Имя прецедента	Search for goods
ID прецедента	1
Краткое описание	Customers search for products by product name(Support fuzzy search).
Актёры, задействованные в прецеденте	Customers

<b>Предусловия</b>	Customers want to buy something and there are some sellers who sell something customers want.
<b>Основной поток</b>	<ol style="list-style-type: none"> <li>1. Customer search goods by name.</li> <li>2. Customer enter the goods' page</li> </ol>
<b>Постусловия</b>	Customer read the info of goods
<b>Альтернативные потоки</b>	If there is no goods which customer wants, site will show similar goods.

<b>Имя прецедента</b>	Publish goods
<b>ID прецедента</b>	2
<b>Краткое описание</b>	Seller publish the goods on the site
<b>Актёры, задействованные в прецеденте</b>	Seller
<b>Предусловия</b>	The seller is already registered on the website
<b>Основной поток</b>	<ol style="list-style-type: none"> <li>1. Sellers prepare the info and photos of goods.</li> <li>2. Sellers set the key words of goods.</li> </ol>

	3. Sellers publish goods.
<b>Постусловия</b>	The good is published.
<b>Альтернативные потоки</b>	The product is illegal and not allowed to be published.

<b>Имя прецедента</b>	Guarantee the transaction
<b>ID прецедента</b>	3
<b>Краткое описание</b>	The site owner (third party) guarantees the transaction.
<b>Актёры, задействованные в прецеденте</b>	Site owner
<b>Предусловия</b>	нет
<b>Основной поток</b>	<ol style="list-style-type: none"> <li>1. The owner collects the info of the customers and sellers.</li> <li>2. Collect the seller's deposit.</li> <li>3. Collect payments from customers.</li> <li>4. Transfer the money to the seller's account when both parties agree.</li> </ol>
<b>Постусловия</b>	After the transaction is completed, the user can evaluate the seller and the product.
<b>Альтернативные потоки</b>	The transaction fails, the owner collects the message and handles it accordingly

**Вывод:**

I have learnt what is the use case and how to find it out from our lives. Understand how to make our own UML diagram and how to read a diagram. I will think about the systems I meet in my life in this mode. It will be pretty useful for my job in the future. Next time before I plan to do a project, I will make an UML to analyze customer needs and develop a corresponding plan.

Thank you so much for lectures!!!