



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**SESSION 2019/2020 SEMESTER 2**

**CODE & SUBJECT :  
SECJ 1023-01  
PROGRAMMING TECHNIQUE II**

**NAME OF LECTURER :**  
DR. NOOR HIDAYAH BINTI ZAKARIA

**PROJECT 1 :**  
**ONLINE INVENTORY SYSTEM**

**Group members:**

KHOR YONG XIN A19EC0061  
HAM JING YI A19EC0048  
AZRIANA BT ZAINAL ABIDIN A19EC0027  
NOR HAFIYZHA BT MD HUSNI A19EC0124

# INTRODUCTION

Electronic commerce (E-Commerce) or internet commerce refers to the buying and selling of goods and services using the internet and transfer of money and data to execute the transactions. One of the most well-known e-commerce service providers in Malaysia is Shopee. It will be cool if the stock can be automatically calculated in the process of selling and buying. The time consumed by the sellers to calculate the stock will be reduced. Therefore, we choose a topic on the online inventory system while online buying and selling. Furthermore, the stock we are going to sell online in our system is the foreign language books. And we are going to use the online stock counting system in e-commerce to count the stock left after the customers place their order. So, In this case study, we want to identify the common problems faced by the sellers nowadays while using an e-commerce service. In order to overcome these problems, we also come out with the best solution for each of them by performing this project that includes aspects of encapsulation, association, aggregation, composition, inheritance and polymorphism in our design.

# OBJECTIVE

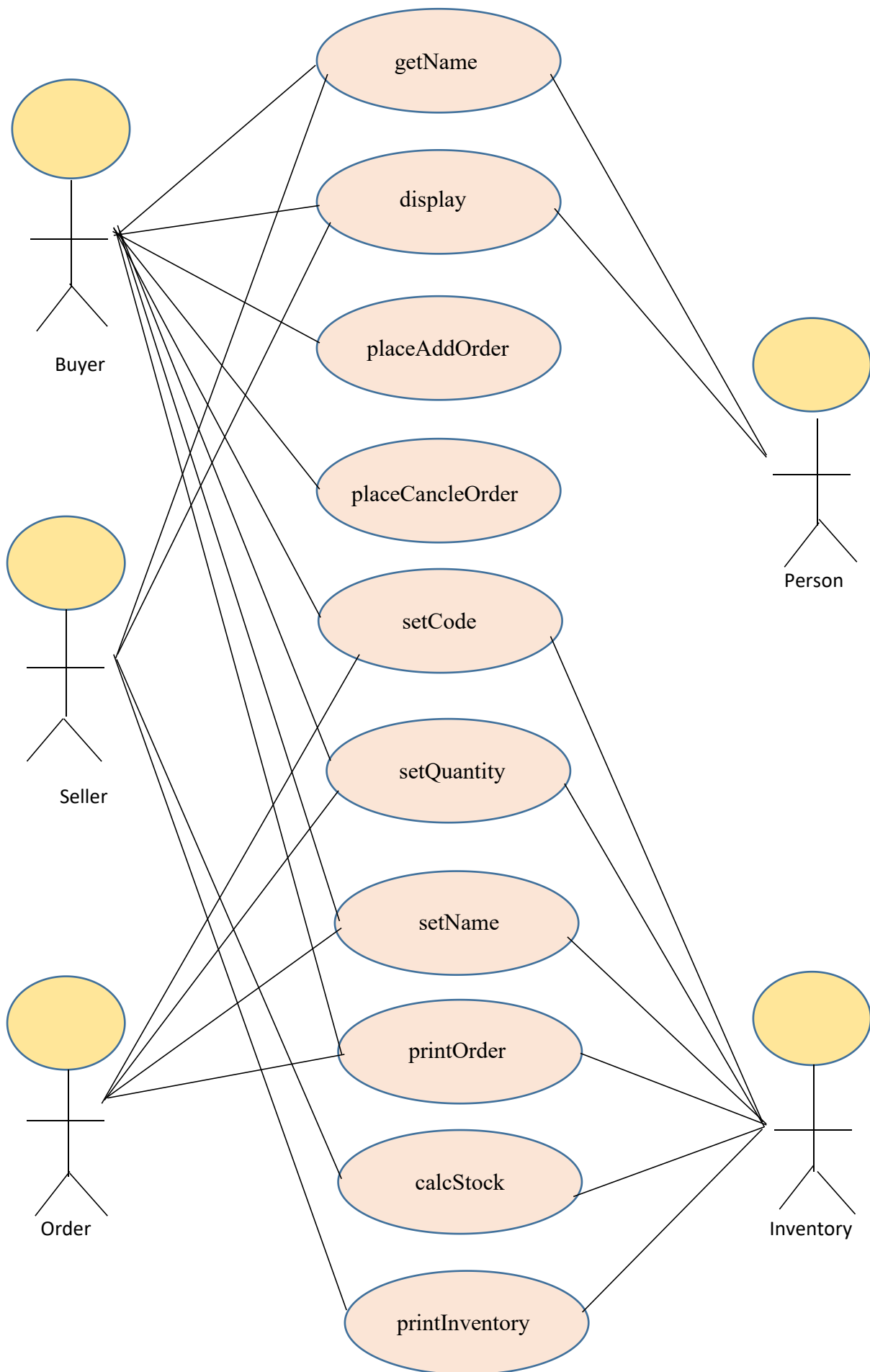
The objective of our online stock counting system is to ensure sellers' convenience by calculating the stocks balance directly in the e-commerce websites rather than manually. How we are going to do this is after the buyers successfully place an order, we provide a class that consists of a member function that can directly produce the current amount of stock left. This can save the seller's time when selling online.

# PROBLEM

Inventory management is a challenging problem for a company to manage their stock properly. Inventory is important for a company to manage their stock properly so that they can fulfil the customers' orders. A good inventory system will increase the performance of a company and their profits. From the case study entitled "A Study of Inventory Management System Case Study" from Dr. Tariq Sheikh in May 2018, we found that most of the companies having this problem in managing their inventory. They are facing the problems of the unorganized inventory arrangement, no accurate counting on stock due to unskilled workers and so on. Inventory problems of too great or too small quantities on hand can cause the business failure. If there is an unorganised inventory system, the company cannot manage and know the exact quantities of the stock left, the stock will become overloaded or face with the shortage of stock. In fact, without an updated stock quantity, it will also affect the buyers who wanted to buy more than one item since the stock quantity isn't provided and updated. If items are displayed on the website and shown as in stock then online sellers should make sure that the particular item is available. It's a big disappointment for customers when they see out of stock notices or even worse they didn't know that the stock isn't available since the inventory is not updated. The study also revealed that better inventory management plays an important role in enhancing customer satisfaction levels which in turn helps e-commerce companies in the long run.

# EXPECTED OUTCOME

With the aim of overcoming this problem, we decided to make an online inventory system while online buying and selling in order to make the inventory management of a problematic company being organized. This is because it is one of the basic concepts to create a better inventory management. First, we will ask the user to input their name, email address, password, address and phone number. Next, an option message will be shown for the user to choose whether he is a buyer or a seller. If he is a buyer, the user is able to enter their id number and place their order either add order or cancel order by entering the respective code of products and quantities. On the other hand, when the user selects a seller, he manages to enter his company id and create an inventory system. The inventory system has stockouts where the quantity of stocks will decrease when the buyers key in a positive number for the amount of the items that they wanted in their addOrder. After they place their addOrder, we provide a situation with two choices. They can choose whether to proceed with the items that they choose or place an cancellation order. In our program, we are going to use two public members in the class which are AddOrder and CancelOrder to represent them. In other ways, the seller could organize their inventory and orders perfectly without overloaded or shortage stocks. The inventory or the balance of the stock will show in an output file with the details of the company and their stock left in their company.



# CONCLUSION

Technology has made significant progress over the years to provide consumers a better online shopping experience and the seller with an extremely convenience selling method. In this case, our online inventory system is useful for the sellers in calculating the stocks. With the rapid growth of products and brands, people have speculated that online selling will overtake in-store selling because there are more customers from all over the world who can shop online by using a smartphone. In order to attract more online sellers to sell stocks online, we should always improve the inventory system of online selling so that the selling method and performance will keep growing for years to come. For example, improving the online inventory system to become a perfect, complete and organized system so that all the stocks and details can be clearly seen and calculated. In conclusion, online selling and buying has opened up doors to many small retailers that would never be in business if they had to incur the high cost of owning a brick and mortar store.