# Question 3

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| Use Case: | Make a purchase | |
| Triggering Event: | User want to buy a T-shirt | |
| Brief Description: | User browse website, choose desired T-shirt design, size and color, then add to cart and complete the purchase progress. | |
| Actors | User, System | |
| Pre-conditions: | User browse and select the desired T-shirt, size and color | |
| Post-conditions: | User bought T-shirt, system update stock and shop history | |
| Flow of Events: | User | System |
| 1. Browse different T-shirt design. 2. Choose a design, pick size, color and quantity. 3. Add T-shirt to cart. 4. Repeat step 1 to 3 until all the items has been added. 5. If the user is logged in, go to step 6.   5a. If the user is not logged in, but is a member, user enter login details.  5b. If the user is not logged in, but is not a member, user can select register an account, or continue as a guest.  5c. If the user is not logged in, and select to register, user enter account detail.  5d. If the user is not login, and choose to continue as a guest, user enter email address to continue.   1. Provide shipping address. 2. Choose use credit/point to pay. 3. If bill is split, choose payment method (credit card) and enter payment details. 4. Confirm the purchase detail, including total price and shipping fee. 5. Confirm and submit order. | * 1. Show different T-shirt design.   2.1 Update stock of T-shirt  3.1 Update the current shopping cart by adding the item.  4.1 Repeat 1.1 to 3.1.  5.1 If the user is logged in, go to step 6  5a.1 Verifies the login detail and log the user into the system.  5a.2 Display the form for user to enter shipping address.  5b.1 Display page to let user register or continue as a guest.  5c.1 Collect account detail, create a database record for new member.  5c.2 Log the user in, and display the form for user to enter shipping address  5d.1 Collect user email address, display a form for user to enter the shipping address  6.1 Collect shipping address and email address, process deliver fee.  7.1 Show user credit/point, if pass the threshold, allow user to use credit/point to pay/split the bill.  8.1 Provide payment method to choose, process the payment detail.  9.1 Show order confirmation page, include total price and shipping fee.  10.1 Verify payment details  10.2 Create order transaction  10.3 Update stock  10.4 Send confirmation email to user. |
| Exception Conditions: | 5a.1 Account detail verification failed.  5d.1 Email address invalid  10.1 Credit card verification failed | |

Assumption:

* The website is user-friendly, easy to navigate.
* The database is real-time updated, can show stock.
* The financial gateway is fast executing, can process payment in real-time.
* The website is configured an email server, can send email to user.

Database record action:

Create:

* When a new member created, create a member record.
* When user complete purchase, create a purchase record.

Update:

* When member completed a purchase, update its account credit/point if member choose credit/point to pay.
* When user complete purchase, update the stock of purchased T-shirt.