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1. You need to write as many test cases as possible for a simple software program which computes the eligible discount for a customer. Try to describe all possible scenarios in a tabular format. Do not worry about ‘login’ kind of test cases, and just focus on how you will validate discount calculation. These are the rules.

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| Rules | Test cases: |
| 1. If the customer is new, and they are willing to sign up for a new loyalty card, they get a 15% discount on all their purchases on the day | * Check if the customer name, phone number etc. matches with any existing customer with loyalty card. So, that only new members are eligible for 15% discount if they sign up for loyalty card. * Validating the customer basic information like name, DOB using any government ID’s. This will prevent existing customers to falsely claim the higher percentage discount. * Check if the purchase done by customer already involves discounted price, if so that product already provides 15 or more precent discount. Hence, customers can’t avail more further discount. |
| 2. If they are an existing customer and hold a loyalty card, they get a 10% discount. | * Check the serial number on the loyalty card which verifies this series of loyalty cards exists or it is false one which is been used by the customers just to avail the discount. * If the serial number is authentic then proceed with QR scanning of the card and verify the details in the database with the loyalty card details and further these details can be further be verified with any government ID of the customer. This will provide more security when it comes to availing 10% discount on the purchases. * Checking the history of purchases and updating the card with the latest transaction which will validate the loyalty card for the upcoming purchases of the customer. |
| 3. If they have a discount coupon, they will get 20% off which cannot be used with the new customer discount but can be used with loyalty card discount. Discount amounts are added, if applicable. | * Checking the coupon serial number in the database if it is not found then coupon is either in development stage or customer is falsely trying to get 20% discount. * Check the status of the coupon code if its already redeemed earlier it cannot be used again. * Check the expiry date of the coupon, expired coupon cannot be used. * Checking the history of the loyalty card if it is a new customer and his first purchase then he can only avail 10% discount with 20% coupon discount. Hence new customer can avail 30% discount. * Checking the history of the loyalty card if it is an existing customer, he can avail 10% discount on loyalty card and 20% discount coupon. Hence total of 30% discount on his purchases. |

2. The following appeared as part of an article in the business section of a local newspaper:

“Ronnie’s Auto Repair Shop commenced business four months ago at the location formerly occupied by the Jenny’s Beauty Parlour. Ronnie’s Auto must be doing well at this location, because it intends to open a big shop in an adjacent town. Jenny’s, on the other hand, has seen a lower volume of business in its first year at its new location compared to the prior year at its former location. Jenny’s definitely erred in shifting to its new location; its former location is a better site.”

Discuss how well reasoned you find this argument. In your discussion be sure to analyse the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underlie the thinking and what alternative explanations or counterexamples might weaken the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in the argument would make it more logically sound, and what, if anything, would help you better evaluate its conclusion.

Evidence that strengthens the argument are as follows:

1. Customer access:

In this case, Jenny experienced a lack of customer access to its new location as her frequent customer may have found her new Parlour location a bit inconvenient to reach and shifted to parlour around the previous location. Since a lot of her frequent customer must be from the neighborhood and moving to the new location just cut the slack from the frequent customers. Thus, had the worse impact on her beauty parlour.

2. Productivity losses:

In this case, Jenny experienced a lack of skilled employees. Since during the move she might have to fire her previous employees. This might have affected her business as lack of trained professional can significantly cut down the productivity of the business. Thus, result in financial loss.

3. Unrealistic budgets:

In this case, Jenny might have ignored the competition in the new location or not have fully analyzed the pricing done by the beauty parlour of the new location. She might have kept the pricing same as it was earlier in the previous location. Since financial conditions of people differ from place to place and she might have ignored this fact. Thus, setting unrealistic budgets/pricing when compared to new location.

4. Culture difference/shifting:

In this case, Jenny might have experienced a culture shift. Beauty parlour might not welcomed in the neighborhood as Jenny was hoping for. Surveying could have helped Jenny to make a plan for the shift to the new location. Thus, culture difference resulted in lack of business.

3. How will you test a wireless mouse? What are the different things you will test and check before you can say that it is a good quality wireless mouse?

Metrices to be tested and checked before we can say that a wireless mouse is of good quality or not:

1. Connection:

* Wireless Mouse generally uses two types of connection method when it comes to connecting with devices. It utilizes a 2.4Ghz radio-based connection, which syncs with the USB dongle that you can plug in any PC, laptop or mobile using OTG cable.
* Some models of mouse can utilize Bluetooth to connect to devices. It is preferred to use with devices having inbuilt Bluetooth card.

A good wireless mouse generally supports 2.4GHz radio-based connection as Bluetooth mouse can sometimes result in additional input lag when used in crowded public places like library etc. A good wireless mouse is tested and checked against the input delay and latency when delivering input to the user system.

2. Battery backup:

A good wireless mouse should be as minimalistic as possible. So that it utilizes less battery as possible result in best battery life. A good wireless mouse is tested and checked against the battery backup it provides. More the battery backup, better the mouse. Best wireless mouse is one which can use its charging cord as a cable to connect the mouse with system and you can charge and simultaneously use the mouse. Thus, can be used even if the mouse battery is dead.

3. Battery:

A wireless mouse can have Lithium-ion battery, AA and AAA batteries as their power source. A good wireless mouse is test and checked that it contains Lithium-ion battery rather than AA and AAA batteries because there is always uncertainty when it comes to life span of AA and AAA batteries. They can die in middle of a productive work but Lithium-ion batteries mouse can work even its battery gets fully drains, the charging cable can convert it to a wired mouse and at the same time charges the battery.

4. Mouse control:

A good wireless mouse in test and checked against the software that it been provided by the makers to reconfigure mouse button according to the user need. Certain app, profiles can be configured to launch on pressing certain mouse buttons.

5. Basics:

A good wireless mouse is tested and checked on the basic listing of a good mouse like comfortability, compactness, connectivity. A good wireless mouse is tested how the buttons are positioned like scroll wheel etc. It should have a good grip and handling. It should not cause sprain in wrist in case of long-term usage. It should be compact so that it can easy to travel around with it. It should be compatible with most of the device’s OS like MAC, Windows, Linux etc.