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**Question 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.**

**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. Second if they are an existing customer and hold a loyalty card, they get a 10% discount. Third, 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.**

**Answer 1:**

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No. | Possible Test cases | Discount applicable or not | If yes then how much is applicable |
|  | **Step 1:** New customer? Yes  **Step 2:** Willing to sign up? No | Not Applicable | - |
|  | **Step 1:** New customer? Yes  **Step 2:** Willing to sign up? Yes | Yes | 15% |
|  | **Step 1:** New customer? No  **Step 2:** Holding a loyalty card? No  **Step 3:** Willing to sign up for card? No | Not Applicable | - |
|  | **Step 1:** New customer? No  **Step 2:** Holding a loyalty card? No  **Step 3:** Willing to sign up for card? Yes | Yes | 15% |
|  | **Step 1:** New customer? No  **Step 2:** Holding a loyalty card? Yes  **Step 3:** Have discount coupons? No | Yes | 10% |
|  | **Step 1:** New customer? No  **Step 2:** Holding a loyalty card? Yes  **Step 3:** Have discount coupons? Yes | Yes | 10% + 20% |
|  | **Step 1:** Having discount coupon? Yes  **Step 2:** New customer? Yes | Yes but not with discount coupon | 15% |
|  | **Step 1:** Having discount coupon? Yes  **Step 2:** New customer? No  **Step 3:** Having loyalty card? No | Not applicable | - |
|  | **Step 1:** Having discount coupon? Yes  **Step 2:** New customer? No  **Step 3:** Having loyalty card? Yes | Yes with discount coupon | 10% + 20% |

**Question 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 analyze 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.**

**Answer 2:** The argument is not well reasoned because establishing a business requires other factors also with the location. The above statements concluded the failure and success only based on the location of the shops (in both cases), one-year earnings (in jenny’s case). A business requires many other factors other than location. It depends on how famous the business is. How much advertisement has been done for the business. Already established and well-running competitions (Other parlours) at the location. The customer knows about the new place or gets informed about the new site or not. All of these factors are important. Also just based on one year's earnings we cannot conclude that the location is not good. The factors mentioned are also important and should be considered. If the conclusion is made based upon the advertisement done, the popularity of the business and the awareness of the customers about the new location and failure in competing with the competitions then the conclusion could be very strong. For example, if despite advertising, informing about the new location and giving different services than the other parlours, jenny is still facing low volume in business in next one or more years then it can be concluded as the new location is not better than the former one. But in the mentioned arguments in the article, there is still the possibility that the new location could be better than the former in jenny’s case. So these changes can make the conclusion more strong and logical.

Now considering Ronnie’s case, we can say that the new location is beneficial for him. Just in four months, he intends to open a new big shop in the adjacent city is favoring the statement that his shop is doing well. If the shop is not doing well then he thinks of just shifting to the new location and not about opening a new big shop. So this statement is well reasoned. If the conclusion is made just based on location or time then it could be weakened or illogical. If the conclusion is made considering the statement earnings of the auto shop from its previous location with the new shop opening in alternate city statement then it becomes stronger.

**Question 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?**

**Answer 3:**

1. **For normal use mouse:**
2. We will test whether the grip of the mouse is good or not because while using the mouse we need a good grip.
3. Next we will test the weight of the mouse because for normal use it is not easy to work with heavy mouse.
4. Next we will check the movement of the cursor in laptop/computer whether the movement is smooth or it keeps freezing. We will check whether the cursor is moving according to us or is it moving differently. We will also check whether is it lagging or going too fast. Next we will check whether the buttons are working properly or not. Whether we can click the buttons easily or any problem we are facing. Whether they are working properly or not while using with the computer/Laptop.
5. Then we will test whether while using the mouse the sensors are working fine or it keeps switching off and on constantly or frequently.
6. **For gaming mouse:** Gaming mouse requires all the things to be tested same as in normal mouse but additional requirements are also. It depends on the type of the gamer you are. Here are some common things that needs to be tested as follows:
7. Mouse should support count per inch (CPI) and dots per inch (DPI).
8. For professional gamers they need extra buttons for extra functions. So we need to check whether the extra buttons are there or not and they are working properly with the game or not.
9. Types of sensors installed in mouse.
10. Wide range of sensitivity.
11. Customization of the buttons according to the user is also essential.

All these factors play a vital role to check and test whether the mouse is a good quality product or not.