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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.**

*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.*

**Step 1: Partition your input into categories**

To create a decision table, you will have to partition your input into categories.

There are 6 categories of users in this situation:

* New customers with coupon
* New customers without a coupon
* Existing customers with a loyalty card and no coupon
* Existing customers without a loyalty card and no coupon
* Existing customers with a loyalty card and Coupon
* Existing customers without loyalty and with a coupon

More partitions can be made but from the problem definition itself, it is not clear if the new customers can have a loyalty card or not. So let’s not assume it. Besides, this is just to show you how to arrive at a solution.

**Step 2: Construct your decision table.**

There are many ways to do this. I would use all the input categories as columns and discounts as rows. You end up with the following table:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Type of Customer/Discount | New Customer, no coupon | New customer, with coupon | Existing customer with loyalty card and no coupon | Existing customer without loyalty card and no coupon | Existing customer with loyalty card and coupon | Existing customer without loyalty card and coupon |
| 15% | x |  |  |  |  |  |
| 10% |  |  | x |  | x |  |
| 20% |  | x |  |  | x | x |
| No Discount |  |  |  | x |  |  |

**Step 3: Pick a user from each input category and test**

Now from each category, you can pick one value and test to see if the correct amount of discount is applied.  
So now, you will need at least 6 customers or 6 test cases to test the case completely.

**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.

1. There can be a reason why Jenney’s parlour failed and that is because there must be less population in the adjacent town or the taxes must be more and that is the reason why they were not able to get more or even an equal amount of profit and hence it was a disastrous move for them and could be the same for Ronnie’s auto repair shop. So they should not open another store in the adjacent town.
2. There can be another reason why Jenny’s parlour failed and that is because there were not enough people that went to the parlour in the adjacent town and hence they did not earn enough profit in the adjacent town. For Ronnie’s auto repair shop on the other hand would mean that there would be more area to increase the number of cars to work on simultaneously and hence more customers. Also every town must contain vehicles for transportation and hence they would always get customers and expanding their business would be beneficial.

**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?**

1. Verify that left-click and right-click buttons are working fine.
2. Check if the double click is working fine.
3. Verify the time duration between two left clicks, in order to consider it as a double click.
4. Check if the scroller is present at the top or not.
5. Verify the speed of the mouse pointer.
6. Check the pressure required for clicking the mouse buttons.
7. Verify the acceleration of the mouse pointer.
8. Verify that clicking the button and dragging the mouse operation is working fine(drag and drop functionality).
9. Check the dimension of the mouse, if it’s suitable to grip and work.
10. Verify that the mouse works in all the allowed surfaces.
11. In the case of wireless mouse, check the range up to which the mouse remains operational.
12. In the case of a wireless mouse, check the battery requirement of the mouse.
13. Check if there is an option to switch on or mouse.