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.**

**The test cases involved in the approach can be analysed in a tabular format as a decision tree:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Customer Type** | **Loyalty Card** | **Discount Coupon** | **Discount Percentage** |
| New | Willing to signup | - | 15% |
| New | Not willing to signup | - | 0% |
| New | Willing to signup | Yes | 20% |
| New | Not willing to signup | Yes | 20% |
| Existing | Holds card | - | 10% |
| Existing | Holds card | Yes | 33% (considering successive discounts) |
| Existing | Not hold card | Yes | 20% |
| Existing | Not hold card | No | 0% |

Moreover, additional testcases can also be considered but I’ve not mentioned in the decision table because it is not explicitly mentioned in the rules. The additional testcases can be formed taking into consideration:

-whether the new customer already has a loyalty card, but the discount value can’t be determined from the given facts.

- whether the existing customer can sign up for a card (If he/she holds a coupon) then discount percentage would be 20% else none.

1. **“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.”**

While it may be true that Jenny’s former location is better in terms of business, but the author’s argument does not make a cogent case and is rife with holes and assumptions and thus not strong enough to come up to a conclusion determining which location to be better.

It is purely assumed that Ronnie’s Auto Repair Shop had been doing well in the location previously occupied by Jenny’s Beauty Parlour as no such justification in terms of revenues/ profits earned or even the business growth is justified. Moreover, assuming the auto repair shop had been doing well, one would want to expand their scale in their own town and not in an adjacent town where nothing in regards to the consumerism, economy, tourism or development data is known.

The fact that the two jobs are completely diametrically opposite is also not taken into account, people often tend to go to a repair shop out of immediate need and very less to none preconceived notions are made before going into the shop. On the contrary, beauty parlours are a place of rehabilitation and service, where people do make some judgements and opinions are formed before approaching. It is also not explicitly mentioned in the argument about the number of years Jenny’s parlour had been in service in the previous location, hence we can’t ignore the fact that “trust building” amongst the public also takes time in order for a business to flourish.

The author doesn’t take into account the type of locality the two locations are based in or the number of people in that particular location. Moreover, it may also be the case that Jenny’s new parlour is based out in a place where there is good competition amongst other parlour’s or the fact that Ronny’s new repair shop may only be the auto repair shop in that specific location. The argument also fails to provide data of the number of staff employed or the cost of rents.

In summary, the presented argument is neither persuasive nor sound, it leans on questionable assumptions about the former location to better without providing logical and relevant information. Hence no conclusions can be made on the basis of the argument provided.

1. **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?**

In order to understand the specification’s involved to check for an efficient, fully functional and good quality wireless mouse, we must take into account the two parts that make up the wireless mouse separately, i.e.

**1)Wireless connectivity feature of the mouse:**

Wireless mouse is of two types: RF Mouse and Bluetooth RF Mouse. Both work in a similar way, except the Bluetooth RF mice can choose the RF on which it operates and select a wider range.

TESTCASES INVOLVED:

* Check for the connectivity type: Wi-Fi/ Bluetooth
* Check for the connection strength in GHz.
* Check for the range of the wireless mouse in metres up to which it remains operational.
* Check for the transmitter functioning inside the mouse.
* Checking if the receiver and transmitter are compatible with each other over a certain RF channel. Also ensuring that they are calibrated and paired with each other.
* Check if the receiver is inbuilt or external in the form that attaches to the peripheral port of your computer. (If external, check if the USB connector is in proper shape, insertable.)
* Check if the USB driver is detectable by the operating system.
* Check in case of a software provided for pairing meets all the requirements.

TESTCASES INVOLVED:

* Check for the dimension of mouse according to comfort.
* Check for the presence and proper functioning of the switch in case present.
* Check if there is an LED and if its functioning when switched ON
* Check and test for the click buttons (left and right)
* Check for the battery backup mAh
* Check if the mouse works on all surfaces
* Check if the suitable mouse driver is properly installed and does not override the previous one.
* Check the speed of the mouse pointer and functionalities such as drag and drop feature.
* Check if the double click option and scroller is working properly.
* Check if the device have any hardware conflict during session.