1. **Case Study**

There is a shop in a city where people buy and sale the computers. These 10 computer hardware stocks are rated highest by TheStreet Ratings value-focused stock rating model Computer Hardware companies with the highest Market Cap Apple, Amphenol, HP, Fortive, Corning, AMETEK, Western Digital, Energizer, . Consumers find a product of interest by visiting the shop of the retailer which displays the same product's availability and pricing at different e-retailers. As of 2020, customers can shop online using a range of different computers and devices, including computers laptops. There is a huge stock of computers available. A person can only buy a computer if his age is greater than or equal to 20 and the age less than or equal to 40, he must have amount greater than or equal to 20000 and amount less than or equal to 40000 and he must has experience of using computer greater than or equal to 5 years and experience less than or equal to 15 years. Similarly the customer can sale his/her computer. He/she can also repair his/her computer.

1. **Functions**

* Bool isBuy(int age ,int anount, int experience) //returns answer yes or no …required function
  + 20<=age<=40
  + 20000<=amount<=40000
  + 5<=experience<=15
* Bool isSale(int age , int experience)
* Bool isRepaire(int age , int experience)

1. **Worst Case BVA**

Worst case will make all possible combination of 5 values from each set

* age = {20,21,25,39,40}
* amount = {20000,20001,30000,39999,40000}
* experience= {5,6,10,14,15}

5^n => 5^3 =125

1. **Worse Test Cases**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| case | age | amount | experience | output |
| 1 | 20 | 20000 | 5 | yes |
| 2 | 20 | 20000 | 21 | yes |
| 3 | 20 | 20000 | 25 | yes |
| 4 | 20 | 20000 | 39 | yes |
| 5 | 20 | 20000 | 40 | yes |
| 6 | 20 | 20001 | 5 | yes |
| 7 | 20 | 20001 | 21 | yes |
| 8 | 20 | 20001 | 25 | yes |
| 9 | 20 | 20001 | 39 | yes |
| 10 | 20 | 20001 | 40 | yes |
| 11 | 20 | 30000 | 5 | yes |
| 12 | 20 | 30000 | 21 | yes |
| 13 | 20 | 30000 | 25 | yes |
| 14 | 20 | 30000 | 39 | yes |
| 15 | 20 | 30000 | 40 | yes |
| 16 | 20 | 39999 | 5 | yes |
| 17 | 20 | 39999 | 21 | yes |
| 18 | 20 | 39999 | 25 | yes |
| 19 | 20 | 39999 | 39 | yes |
| 20 | 20 | 39999 | 40 | yes |
| 21 | 21 | 40000 | 5 | yes |
| 22 | 21 | 40000 | 21 | yes |
| 23 | 21 | 40000 | 25 | yes |
| 24 | 21 | 40000 | 39 | yes |
| 25 | 21 | 40000 | 40 | yes |
| 26 | 21 | 20000 | 5 | yes |
| 27 | 21 | 20000 | 21 | yes |
| 28 | 21 | 20000 | 25 | yes |
| 29 | 21 | 20000 | 39 | yes |
| 30 | 21 | 20000 | 40 | yes |
| 31 | 21 | 20001 | 5 | yes |
| 32 | 21 | 20001 | 21 | yes |
| 33 | 21 | 20001 | 25 | yes |
| 34 | 21 | 20001 | 39 | yes |
| 35 | 21 | 20001 | 40 | yes |
| 36 | 21 | 30000 | 5 | yes |
| 37 | 21 | 30000 | 21 | yes |
| 38 | 21 | 30000 | 25 | yes |
| 39 | 21 | 30000 | 39 | yes |
| 40 | 21 | 30000 | 40 | yes |
| 41 | 25 | 39999 | 5 | yes |
| 42 | 25 | 39999 | 21 | yes |
| 43 | 25 | 39999 | 25 | yes |
| 44 | 25 | 39999 | 39 | yes |
| 45 | 25 | 39999 | 40 | yes |
| 46 | 25 | 40000 | 5 | yes |
| 47 | 25 | 40000 | 21 | yes |
| 48 | 25 | 40000 | 25 | yes |
| 49 | 25 | 40000 | 39 | yes |
| 50 | 25 | 40000 | 40 | yes |
| 51 | 25 | 20000 | 5 | yes |
| 52 | 25 | 20000 | 21 | yes |
| 53 | 25 | 20000 | 25 | yes |
| 54 | 25 | 20000 | 39 | yes |
| 55 | 25 | 20000 | 40 | yes |
| 56 | 25 | 20001 | 5 | yes |
| 57 | 25 | 20001 | 21 | yes |
| 58 | 25 | 20001 | 25 | yes |
| 59 | 25 | 20001 | 39 | yes |
| 60 | 25 | 20001 | 40 | yes |