1.

1. Identify equivalent partitions based on the above description

Approach: consider the outputs. There are 4 possible outcomes that can happen

EP1= strong password satisfies condition

EP2= password satisfies 8 Rule but not 4 Rule || password does not satisfy 8 Rule but satisfies 4 Rule || password does not satisfy 8 Rule or 4 Rule

1. Develop test cases in a tabular format given below based on your equivalent partitions above.

|  |  |  |  |
| --- | --- | --- | --- |
| Test case # | Partition Tested | Input(s) | Expected output |
| WN1 | EP1 | iLoveAmerica2015! | Strong password |
| WN2 | EP2 | iloveamerica | Not strong enough password |
|  | EP2 | Usa12! | Not strong enough password |
|  | EP2 | usa | Not strong enough password |

2.

1. Identify equivalent partitions based on the above description

Strategy: Consider the outputs of the program. There are 3 possible outputs

EP1: no root= {q <0}

EP2: one root= {q=0}

EP3: two roots= {q>0}

|  |  |  |  |
| --- | --- | --- | --- |
| Test case # | Partition Tested | Input(s) | Expected output |
| WN1 | EP1 | a=1,b=1,c=1 | No root |
| WN2 | EP2 | a=1,b=2,c=1 | 1 Root  Root=-1 |
| WN3 | EP3 | a=1,b=-2,c=-3 | 2 Roots  Root1=3  Root2=-1 |