

Date: \_\_\_\_\_

Duty: M T W T F S

SQE-01

(26/01/23)

50 Marks  
Min

- related to software testing.

- selenium - jira.

- good dev  $\Rightarrow$  good tester.

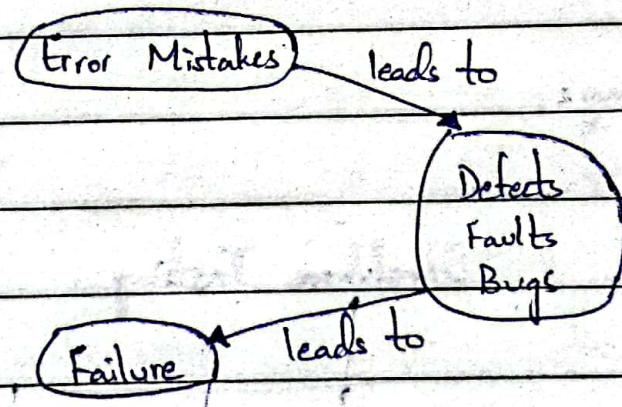
SQE-02 (17/01/23)

- ERROR: - mistake by developer  
- unknown:

- DEFECT: (Unknown mistake by tester)

- BUG: Mistake accepted by developer

- FAILURE: Unable to do a functionality



## Why Software Testing?

1- Quality Measure

2- Identify problems/bugs.

Date: \_\_\_\_\_

Day, M T W T F S

## Blackbox Testing

- Code not visible
- By Q/A
  - Don't know coding
  - only functionality check
  - inputs/outputs
- don't test code
- only limited inputs.

## Whitebox Testing

- Code is visible.
- By Developer
- not only input/outputs
  - but also code(architecture)
  - & if-else(logic), try-catch
- detailed testing.
- during development.

• Both testing are imp.

## Regression Testing:

## Retesting:

## Blackbox Testing

Functional [Def]      Non-functional [Def]      Regression/ReTesting

e.g. Receive Email      e.g. within 2-min.

- |                 |                             |
|-----------------|-----------------------------|
| - Unit          | - Load.                     |
| - Integration.  | - Stress.                   |
| - Smoke Testing | - Strain.                   |
| - Acceptance.   | - Volume (piece of code/db) |

Date: \_\_\_\_\_

Days: M T W T F S

- Security

- Performance.

Q: What is a test case?

- d/f scenarios to test a functionality.
- more test cases for functionality  $\rightarrow$  more quality.

SQE-03 (23/01/24)

Blackbox	White box
- closed testing.	- clear box testing.
- external	- internal.
- behaviour testing.	- logic testing.
- least time.	- most time.

Retesting vs Regression Testing



testing again failed  
test cases after some  
modification.

testing the previously  
correctly working test cases/  
passed test cases again  
for expected new bugs  
after updating/adding/  
merging code.

Date: \_\_\_\_\_

Day: M T W T F S

## Testing is not easy

- may ask you to re-write the code.

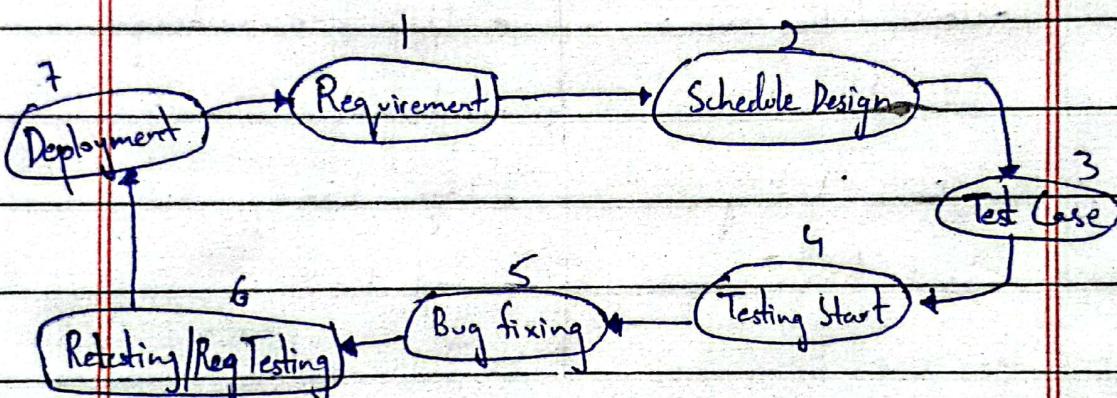
- checks the logic in code.

int  $\Rightarrow$  short Int (memory wastage)

SQE - 4 (26/01/24)

Remove defects  $\Rightarrow$  increase quality.

STLL  $\Rightarrow$  for QA Team.



### ⇒ Requirements

Func Non Func.

- Login - within 5 sec.

- Logout - 24/7 backup

- balance - security.

- transaction.

Date: \_\_\_\_\_

Day: MTWTFSS

Features			

## 2) Schedule Design

features + schedule (priority) + date + tester -

Test case	Versions	1	3	Total test cases	Test cases done	TCL Pass	TCL Fail	P-T
1.1	1	Login	10					
1.2	2							
	3							

P → priority | T → Tester.

1) Gather Req.

2) Scheduling priority + tester name + date.

3) Design test cases (should be by senior).

4) Start testing.

5) Deliver failed test cases / bug fixing parallel to fix

6) Retesting / Regression Testing.

7) Deployment

in parallel

dev team works

bugs

• Version in test case ⇒ some change in scenario.

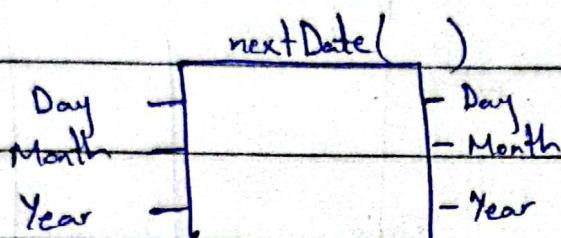
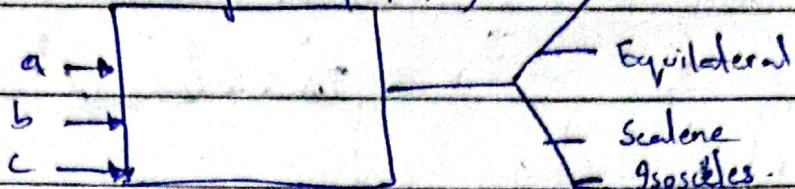
SQE-5 (30/1/24)

Unit Testing:

- Testing small features.

- blackbox + white box

string check(a, b, c)

Triangle:

$$c_1: 1 \leq a \leq 200$$

$$c_4: a \neq b \neq c$$

$$c_2: 1 \leq b \leq 200$$

$$c_5: b < a + c \quad \text{AND}$$

$$c_3: 1 \leq c \leq 200$$

$$c_6: c < a + b$$

$$c_7: a = b \& b = c \quad (\text{Eq})$$

. otherwise

not a  $\Delta$

$$c_8: a \neq b \& b \neq c \& a \neq c \quad (\text{Scalene})$$

$$c_9: (a=b) \text{ or } (a=c) \text{ or } (b=c) \quad (\text{Isosceles})$$

1 4 3  $\Rightarrow$  may output scalene but it  
is not  $\Delta$

Date: \_\_\_\_\_

Day: MTWTFSS

## SQE-6

(2/02/24)

A system that accept

$$18 \longleftrightarrow 56$$

Valid (within range)      Invalid (out of range).

min 18

min -17 (min -1)

max 56

max +57 (max +1)

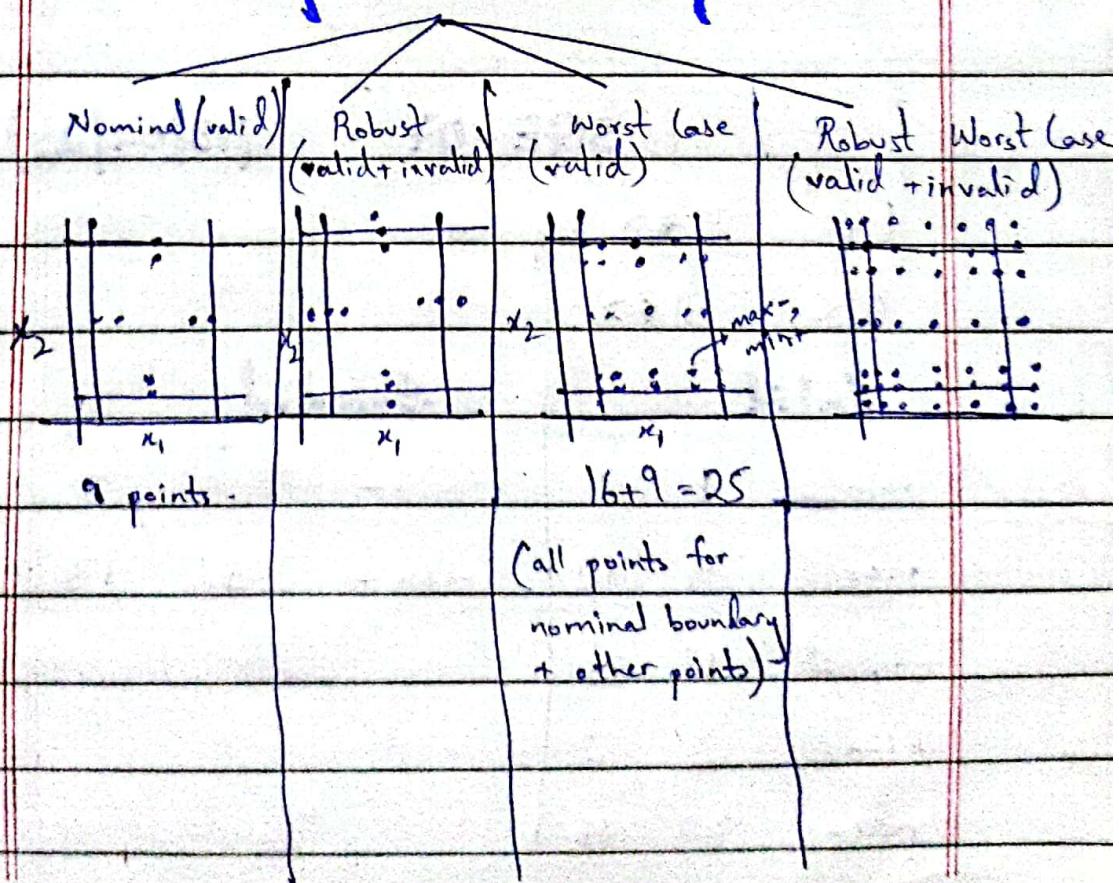
(mid val) nominal ~~at~~ 37

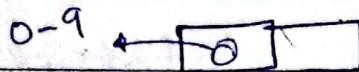
(min+1) min+ 19

(max-1) max - 55

## (UNIT TESTING)

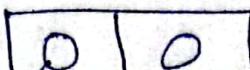
### Boundary Value Testing





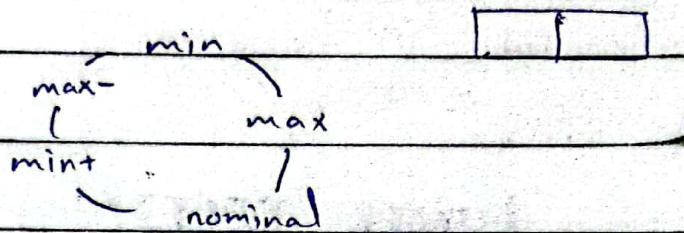
10 characters

$$10^2 = 100 \text{ possibilities}$$

character ^ boxes  $\Rightarrow$  combinations

$$\Rightarrow 5^2 = 25$$

### Normal Test Case

5x values  $\Rightarrow$  25 values

**SQE - 07 (13/02/24)**

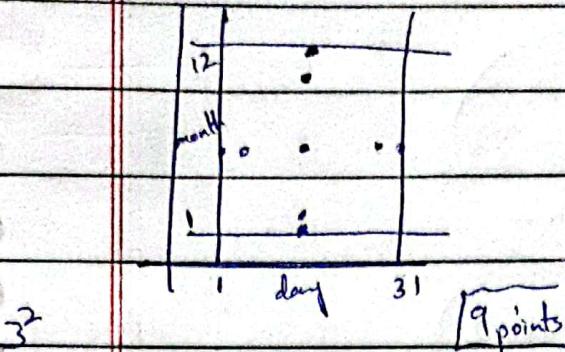
1.  $12 \leq \text{month} \leq 12$ 1.  $1 < \text{day} \leq 31$ 

Valid	Invalid
day month	day month
min 1 1	min 0 0
max 31 12	max+ 32 13
nominal 15 6	
mint 1 2	
max- 30 11	

Date: \_\_\_\_\_

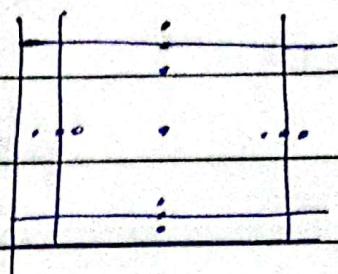
Day: MTWTF

Normal Boundary  
(valid)

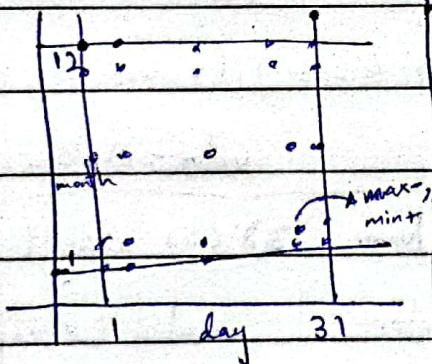


(15, 1)  
↓ min  
nominal  
(15, 12)  
↓ max  
nominal

Robust BVT  
(valid + invalid)



Worst Case BVT  
(valid)

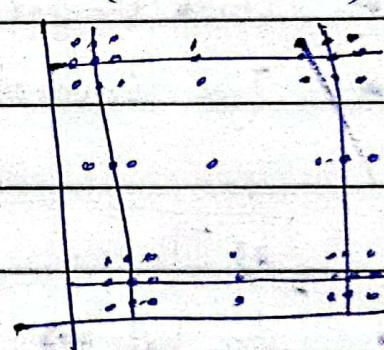


$$5^2 = 25$$

all points for normal

boundary to other points.

Robust Worst Case BVT  
(valid+invalid)



$$7^2 = 49$$

Robust  $\Rightarrow$  out of boundary

Normal  $\Rightarrow$  only normal from worst case BVT.

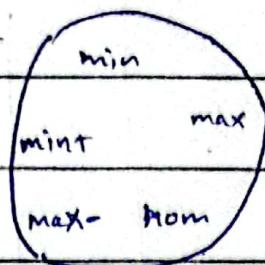
9 points



$$3^2 = 9$$

Worst Case: BVT

$$25 \text{ points} \quad 5^2 = 25$$



$$(min, min) \Rightarrow (1, 2)$$

$$(nom, min) \Rightarrow (15, 1)$$

## SQE-08 (12/02/24)

Selenium  $\Rightarrow$  Automated Web Testing (blackbox)

- Open Command  $\Rightarrow$  target url.
- Click Command  $\Rightarrow$  locator (id=username)
- Type Command  $\Rightarrow$  locator (id=username, value=abc@ )

1) ID      2) Name      3) CSS class

- store text  $\Rightarrow$  locator value (variable)
- echo  $\Rightarrow$  locator {msg}
- assert  $\Rightarrow$  target  $\Rightarrow$  variable name  
value  $\Rightarrow$  expected value
- send keys  $\Rightarrow$  id = abc  
 $\$ \{KEY-ENTER\}$

Month	-	Weak	robust
Date:	C <sub>3</sub> + C <sub>4</sub>	not normal strong	
	C <sub>1</sub> valid		Day: M T W T F S

T  
F  
T

- if invalid \${price} < 280
- end.

SQE-09 (26/02/24)

### Equivalence Class Testing.

C<sub>1</sub>: 1 ≤ Day ≤ 31

C<sub>2</sub>: 1 ≤ Month ≤ 12

Normal

(C<sub>3</sub>) 1 ≤ Day ≤ 31

(C<sub>4</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>5</sub>) 1 ≤ Day ≤ 31

(C<sub>6</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>7</sub>) 1 ≤ Day ≤ 31

(C<sub>8</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>9</sub>) 1 ≤ Day ≤ 31

(C<sub>10</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>11</sub>) 1 ≤ Day ≤ 31

(C<sub>12</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>13</sub>) 1 ≤ Day ≤ 31

(C<sub>14</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>15</sub>) 1 ≤ Day ≤ 31

(C<sub>16</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>17</sub>) 1 ≤ Day ≤ 31

(C<sub>18</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>19</sub>) 1 ≤ Day ≤ 31

(C<sub>20</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>21</sub>) 1 ≤ Day ≤ 31

(C<sub>22</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>23</sub>) 1 ≤ Day ≤ 31

(C<sub>24</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>25</sub>) 1 ≤ Day ≤ 31

(C<sub>26</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>27</sub>) 1 ≤ Day ≤ 31

(C<sub>28</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>29</sub>) 1 ≤ Day ≤ 31

(C<sub>30</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>31</sub>) 1 ≤ Day ≤ 31

(C<sub>32</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>33</sub>) 1 ≤ Day ≤ 31

(C<sub>34</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>35</sub>) 1 ≤ Day ≤ 31

(C<sub>36</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>37</sub>) 1 ≤ Day ≤ 31

(C<sub>38</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>39</sub>) 1 ≤ Day ≤ 31

(C<sub>40</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>41</sub>) 1 ≤ Day ≤ 31

(C<sub>42</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>43</sub>) 1 ≤ Day ≤ 31

(C<sub>44</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>45</sub>) 1 ≤ Day ≤ 31

(C<sub>46</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>47</sub>) 1 ≤ Day ≤ 31

(C<sub>48</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>49</sub>) 1 ≤ Day ≤ 31

(C<sub>50</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>51</sub>) 1 ≤ Day ≤ 31

(C<sub>52</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>53</sub>) 1 ≤ Day ≤ 31

(C<sub>54</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>55</sub>) 1 ≤ Day ≤ 31

(C<sub>56</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>57</sub>) 1 ≤ Day ≤ 31

(C<sub>58</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>59</sub>) 1 ≤ Day ≤ 31

(C<sub>60</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>61</sub>) 1 ≤ Day ≤ 31

(C<sub>62</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>63</sub>) 1 ≤ Day ≤ 31

(C<sub>64</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>65</sub>) 1 ≤ Day ≤ 31

(C<sub>66</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>67</sub>) 1 ≤ Day ≤ 31

(C<sub>68</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>69</sub>) 1 ≤ Day ≤ 31

(C<sub>70</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>71</sub>) 1 ≤ Day ≤ 31

(C<sub>72</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>73</sub>) 1 ≤ Day ≤ 31

(C<sub>74</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>75</sub>) 1 ≤ Day ≤ 31

(C<sub>76</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>77</sub>) 1 ≤ Day ≤ 31

(C<sub>78</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>79</sub>) 1 ≤ Day ≤ 31

(C<sub>80</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>81</sub>) 1 ≤ Day ≤ 31

(C<sub>82</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>83</sub>) 1 ≤ Day ≤ 31

(C<sub>84</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>85</sub>) 1 ≤ Day ≤ 31

(C<sub>86</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>87</sub>) 1 ≤ Day ≤ 31

(C<sub>88</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>89</sub>) 1 ≤ Day ≤ 31

(C<sub>90</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>91</sub>) 1 ≤ Day ≤ 31

(C<sub>92</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>93</sub>) 1 ≤ Day ≤ 31

(C<sub>94</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>95</sub>) 1 ≤ Day ≤ 31

(C<sub>96</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>97</sub>) 1 ≤ Day ≤ 31

(C<sub>98</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>99</sub>) 1 ≤ Day ≤ 31

(C<sub>100</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>101</sub>) 1 ≤ Day ≤ 31

(C<sub>102</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>103</sub>) 1 ≤ Day ≤ 31

(C<sub>104</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>105</sub>) 1 ≤ Day ≤ 31

(C<sub>106</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>107</sub>) 1 ≤ Day ≤ 31

(C<sub>108</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>109</sub>) 1 ≤ Day ≤ 31

(C<sub>110</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>111</sub>) 1 ≤ Day ≤ 31

(C<sub>112</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>113</sub>) 1 ≤ Day ≤ 31

(C<sub>114</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>115</sub>) 1 ≤ Day ≤ 31

(C<sub>116</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>117</sub>) 1 ≤ Day ≤ 31

(C<sub>118</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>119</sub>) 1 ≤ Day ≤ 31

(C<sub>120</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>121</sub>) 1 ≤ Day ≤ 31

(C<sub>122</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>123</sub>) 1 ≤ Day ≤ 31

(C<sub>124</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>125</sub>) 1 ≤ Day ≤ 31

(C<sub>126</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>127</sub>) 1 ≤ Day ≤ 31

(C<sub>128</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>129</sub>) 1 ≤ Day ≤ 31

(C<sub>130</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>131</sub>) 1 ≤ Day ≤ 31

(C<sub>132</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>133</sub>) 1 ≤ Day ≤ 31

(C<sub>134</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>135</sub>) 1 ≤ Day ≤ 31

(C<sub>136</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>137</sub>) 1 ≤ Day ≤ 31

(C<sub>138</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>139</sub>) 1 ≤ Day ≤ 31

(C<sub>140</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>141</sub>) 1 ≤ Day ≤ 31

(C<sub>142</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>143</sub>) 1 ≤ Day ≤ 31

(C<sub>144</sub>) 1 ≤ Month ≤ 12

Strong

(C<sub>145</sub>) 1 ≤ Day ≤ 31

(C<sub>146</sub>) 1 ≤ Month ≤ 12

Robust

(C<sub>147</sub>) 1 ≤ Day ≤ 31

(C<sub>148</sub>) 1 ≤ Month ≤ 12

Weak

(C<sub>149</sub>) 1 ≤ Day ≤ 31

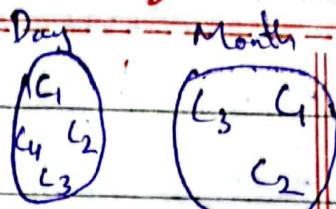
(C<sub>150</sub>) 1 ≤ Month ≤ 12

Date: \_\_\_\_\_

Day, M T W T F S

Day 1-31

Month 1-12



**Step 1:** Create classes of variable.

Day: \_\_\_\_\_

Month: \_\_\_\_\_

Day C<sub>1</sub>: 1-28 [valid]

MC<sub>1</sub> = 1-12 [valid]

Day C<sub>2</sub> = 29-31 [valid]

MC<sub>2</sub> = 1 > [smaller] [invalid]

Day C<sub>3</sub> = 31 < [greater] [invalid]

MC<sub>3</sub> = 12 < [greater] [invalid]

Day C<sub>4</sub> = 1 > [smaller] [invalid]

MC<sub>4</sub>

Time

SQE-10

(23/02/24)

→ Make Test cases of Equivalent classes.

D M Y

Normal =  $2 \times 2 \times 2 = 8$  cases

if all then  
strong normal

Robust =  $4 \times 4 \times 4 = 64$  cases

if all then  
strong robust

→ Test cases are must.

else weak

• 2 valid + 2 invalid for day/month/year.

Date: \_\_\_\_\_

Day: MTWTF

SQE-II

(27/02/24)

### Decision Table Based Testing

Conditions	Combinations										
c <sub>1</sub> Is triangle?	F	F	F	F	F	F	T	T	T	T	F
c <sub>2</sub> a = b ?									F	F	F
c <sub>3</sub> a = c ?									F	F	T
c <sub>4</sub> b = c ?									F	T	F
Actions	Not a triangle								X	X	X
EQ											
Scalene									*		
Isosceles									*	*	*
Not possible											X

### Expected Output

$$\left. \begin{array}{l} c_1 \quad a < b+c \\ c_2 \quad b < a+c \\ c_3 \quad c < a+b \end{array} \right\} \text{Possible triangle}$$

$$c_4 \quad a=b \quad \& \quad b=c \quad \text{EQ}$$

$$c_5 \quad a=b \quad \text{or} \quad a=c \quad \text{or} \quad b=c \quad \text{Iso}$$

$$c_6 \quad a+b \quad \& \quad b+c \quad \& \quad a+c \quad \text{Scalene}$$

Date: \_\_\_\_\_

Day, M T W T F S

SQE-12

12/02/24

### Decision Table Testing

day	29 30 28 31
month	1, 3, 5, 7, 8, 10 4, 6, 9, 11 2 12
year	leap

Test Case Log