

## Deliverable 5

The last thing for us to do in the project was fault injection to ensure that our framework could detect changes in the code. For this we changed the code in five places, injected five “faults”, to see how that would change the results of our test cases. Below you will see a list of the changes that we made.

functions.factorial at line 302

WAS `res *= n - 1`

CHANGED TO `res = n - 1`

functions.\_do\_gcd at line 266

WAS `return _do_gcd(b, a % b)`

CHANGED TO `return _do_gcd(b, a / b)`

agepicker.calculate\_birth\_timestamp at line 48

WAS `birth_timestamp = int(1234892919.655932 - age_in_seconds)`

CHANGED TO `birth_timestamp = (1234892919.655932 - age_in_seconds)`

agepicker.calculate\_age at line 54

WAS `age = int(math.floor(age_in_seconds / _SECONDS_PER_YEAR) + 0.5)`

CHANGED TO `age = int(math.floor(age_in_seconds / _SECONDS_PER_YEAR))`

calculate.findchar at line 60

WAS `level -= 1`

CHANGED TO `level += 1`

The test cases that we noticed failed were: 1, 2, 3, 4, 5, 9, 16, 17, 19, 20, 21, 22, 24, 29