Project Microarrray:

# of invariants: 222

# of test cases: 84

# Regression faults: 3

# of the fn:

# of lines of code:TBD

Case 1: The API return data and its column name . The program get data and using the column name to extract the data to display in the data table.

User changes API’s return value. Changed the column name. The programmer, change the code to meet the code change. However, the programmer forgets to change the search function. Which based on the column name to search the keywords in data table and result in the regression faults.

Changes:

Affected object : this.props.data.pathways\_up.

API: './api/analysis/runContrast'

Fail Test cases: 57(1)

Case 2: It is similar case,due to the API change, The sorting function does not working due to the sorting function using column name to identify the sorting target. Which cause the regression faults.

Changes:

Affected object : this.props.data.pathways\_down.

API: './api/analysis/runContrast'

Fail Test cases:60~68(8)

Case 3: This regression fault is due to API changes. Before the change. The API always return empty value. After change, API return not null value. Then the page need to display the return value. However, the structure of return value is not same as excepted then cause regression faults.

Changes :

Affected object : this.props.data. ssGSEA.

API: './api/analysis/runContrast'

Fail Test cases:85,86(2)

Project CEDCD

# of invariants: 1477

# of test cases: 190

# Regression faults: 2

# of the fn:155

# of lines of code:TBD

Case 1: The during to business logic the store procedure changes. Which cause the return’s value changes. The return value is an object. Which has an attribute gender. Before the change the gender was -1(unknown),0(both),1(male),-1(female). After change, the gender changed into String Type as *male*, *female*, *unknown* and *both*.

There is a regression fault that this changed values was assign to another object. Then this object was changed and any functions use this object are affected.

Changes:

Affected object : no cancer

Fail Test cases: 4.1.12 2.2.1 (2.1.5,2.1.6,2.1.7)

Case 2: The word change. In a dropdown box, word “no cancer” in a lower case change into upper case. It is a simple change, just wording. The programmer did not perform any regression testing.

However, when the option “no cancer” maps into database which use number to indicate different selections. Such as , -1 means no cancer and 1 means has cancer. There is a statement map word “no cancer” to the -1 and that statement using lower case. Which has been changed into upper case. Then cause the regression fault.

Changes:

Affected object : no cancer

Fail Test cases: 5.15(1)