

MAINTENANCE PROJECT

Given a system consisting of Transactions and modules (which are related to the Transactions).

Given that a module is defective (root cause) determine the paths back to a given transaction.

In so doing print out:-

- a) the transactions in the system under study;
- b) the unique modules within the system; and
- c) an explosion of the transaction under review

Example given :

Relationships example used where there are 2 transactions A and Q (Data set end with **).

C F; D X; D Y; A B; A C; Q C; Q D; A D; B X; B Y; B Z; D Z; X P; Y X; Z B1; Z F; **

Example data set (inp.txt) will contain the following :

C F; D X; D Y; A B; A C; Q C; Q D; A D; B X; B Y; B Z; D Z; X P; Y X; Z B1; Z F; **; Q: F;

1. Show a User Interface for the project.
2. Given that there is a defective module (eg F),

a) Print out the number of unique modules in the system

Using the example above the unique modules are B,C,D,B1, X,Y,Z,F,P ;

There are 9 Unique modules and there are 2 transactions A and Q

b) Show the given paths from the transaction to the defective module.

Using the example above for transaction Q it will be :

Q C F

Q D Z F

c) Show the explosion of a given transaction (eg Transaction Q); Note “*” represents a previous call to a module.

Q

C

F

D

X

P

Y

X*

Z

B1

F*