CODING

Coding standards / Guideline

1. Limited use of global variable
2. Header for different modules.

Name of the module
Date of creation
Author
Modification history
Synopsis about the module
Different Functions called in module
I/O, O/P Parameters.
Global variables accessed by the module.

3. Naming convention for Local variables, global variables, constants & Functions.

   Localdata
   Global Data
   CONSDATA

4. Proper indentation
5. Error handling or exception handling convention for function. eg Error message, Return of function incase of error
6. Avoid too difficult coding style
7. Use of identifier for multiple purpose
8. Use comments indicate purpose of code segment.
9. Avoid lengthy functions.
10. Avoid GOTO statements.
11. Avoid repetition of same piece of code
12. Namming of file & folder
13. Use INCREMENTAL approach rather than BIG-BANG approach for integrating function/class.

DEBUGGING
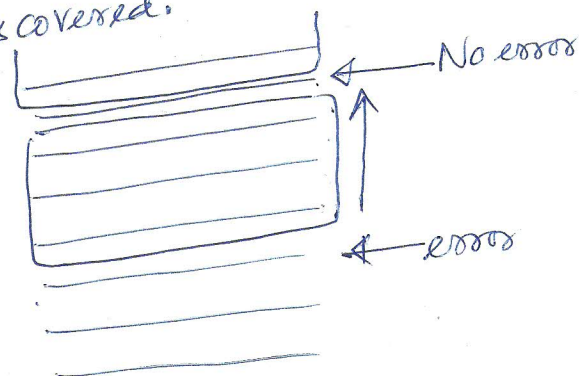
LOCATE & FIX ~~CODE~~ ERROR

1. **Brute-force method**
Checking values of variables ———— printing intermediate values of variables, use breakpoint, use checkpoint

2. **Backtracking / Backward analysis**
Starting from statement with error / error region, statements are traced backwards till error is discovered.

Examination of previous version of a code.

← No error

← error

3. **Cause elimination**
Listing down causes that may have contributed the error.
Tests are conducted to find exact cause.

4. **Program slicing**
Slice a program for a particular variable
Comment out rest of the parts.

a, b, c & d - - - → @

simplified version