

Testing

- Human testing
- White Box testing
- Black Box testing

White Box Testing

1. Statement Coverage
2. Decision Coverage
3. Condition Coverage
4. Decision/Condition Coverage
5. Multiple Condition/Decision Coverage

White Box Testing

Example code:

```
IF (A > 1) AND (B < 0)
  THEN X = X / A
IF (A == 2) OR (X > 1)
  THEN X = X + 1
```

White Box Testing

- Statement Coverage
 - Each statement must be executed
 - NECESSARY condition for testing but not SUFFICIENT

White Box Testing

Test Cases

A =

B =

X =

White Box Testing

- Decision Coverage
 - Both the TRUE and FALSE outcome of a decision must be executed
 - ALL statements must be executed

White Box Testing

- Condition Coverage
 - ALL outcomes (TRUE and FALSE) of each condition must be tested
 - ALL statements must be executed

White Box Testing

- Decision/Condition Coverage
 - Each outcome of each condition must be tested
 - Each outcome of each decision must be tested
 - Each statement must be executed

White Box Testing

- Multiple Condition Coverage
 - All possible combinations of outcomes must be tested
 - All outcomes of all conditions must be tested
 - All outcomes of all decisions must be tested
 - All statements must be executed

White Box Testing

