

BASIS PATH TESTING EXAMPLE: VIDEO SALES

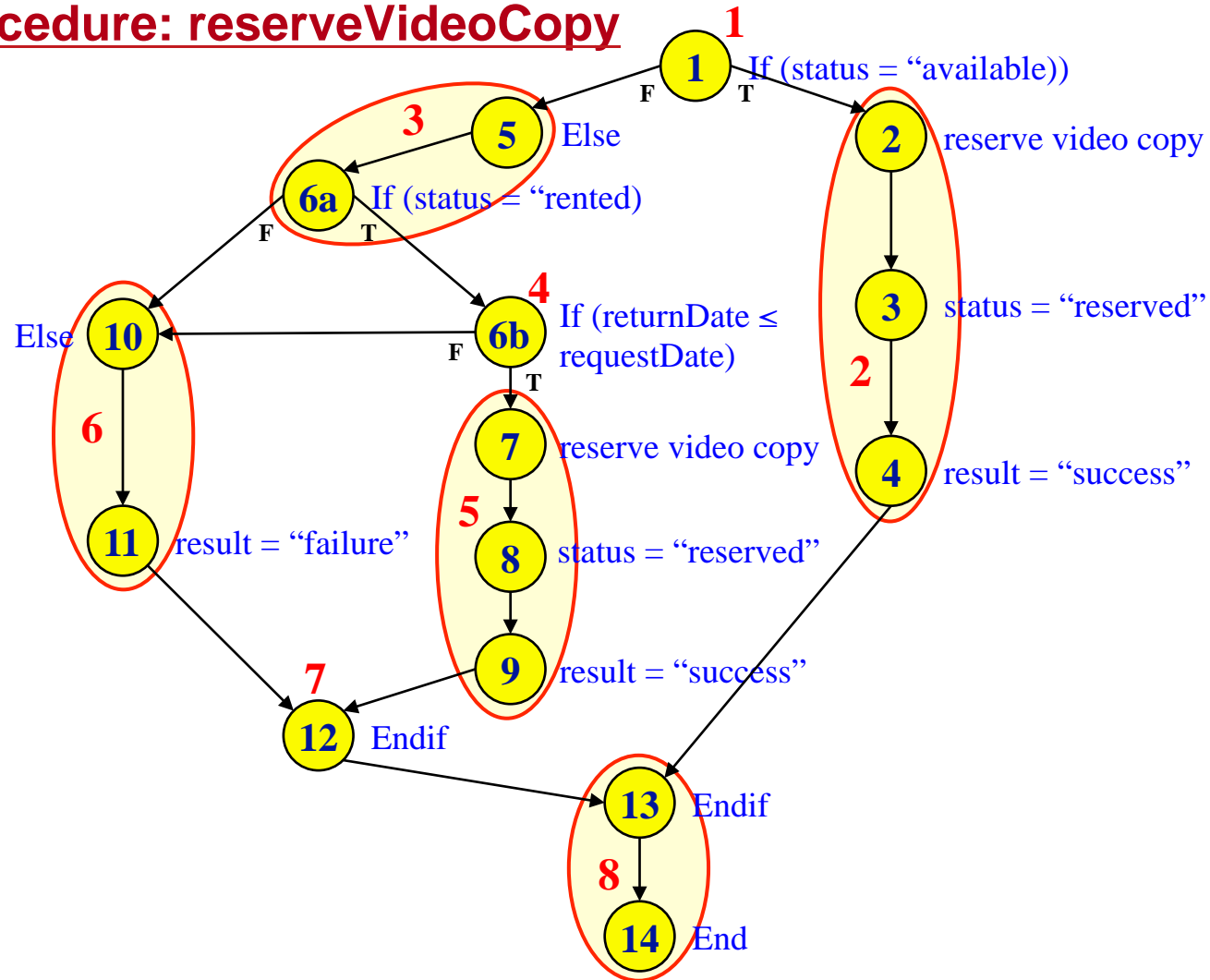
The following procedure is used for reserving a copy of a video.

```
Procedure: reserveVideoCopy return(result)
1.   If status = "available"
2.       reserve video copy
3.       status = "reserved"
4.       result = "success"
5.   Else
6.       If (status = "rented") AND (returnDate ≤ requestDate)
7.           reserve video copy
8.           status = "reserved"
9.           result = "success"
10.      Else
11.          result = "failure"
12.      Endif
13.  Endif
14.  End
```

1. Draw the flow graph for the reserveVideoCopy procedure.
2. Show the flow graph node to program statement mapping.
3. Clearly label the regions of the flow graph.

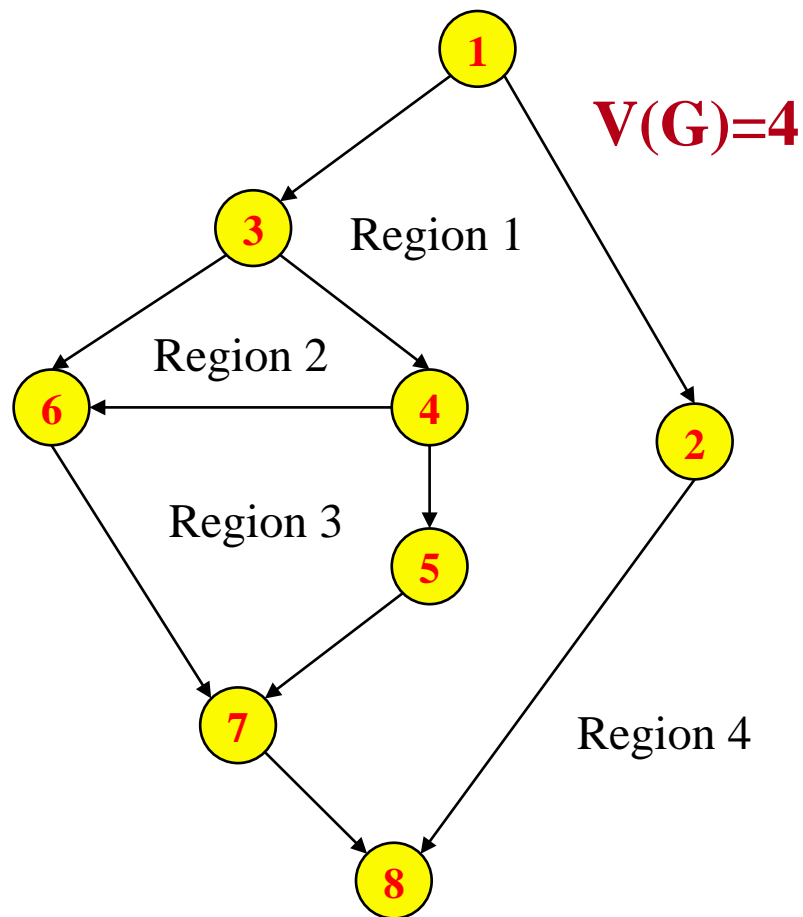
BASIS PATH TESTING EXAMPLE: FLOW GRAPH

Procedure: reserveVideoCopy



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Flow graph node to program statement mapping:

Node Statement

1. 1
2. 2, 3, 4
3. 5, 6a
4. 6b
5. 7, 8, 9
6. 10, 11
7. 12
8. 13, 14

Basis set (statement numbers):

1. 1 2 3 4 13 14
2. 1 5 6a 6b 7 8 9 12 13 14
3. 1 5 6a 6b 10 11 12 13 14
4. 1 5 6a 10 11 12 13 14

BASIS PATH TESTING EXAMPLE: COMMON ERRORS

- Missing the outside region
- Missing a node for the last statement(s)
- Having a condition with only one out-going branch
- Not understanding what is a flow graph