Assignment 2 Part B: Testing Documentation

Assignment 2 COIS 2020H
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1) P has no items if P[0,0] is undefined.

P[0,0] = 99 is a valid number.
the matrix contains items.

Undefined - empty

Defined (99) - not empty

2) P has m × n entries if P[m−1,n−1] is defined.

heap is 4 × 5, so full capacity is 20 items. Not Full

3) The number of items in row k is ≥ the number of items in row k+1.

Row 0: 5 items - 99 93 91 87 45
Row 1: 5 items - 70 67 85 78 17

Row 2: 4 items - 33 42 25 53
Row 3: 0 items - a bunch of infinites

rule:

$5 \geq 5$
$5 \geq 4$
$4 \geq 0$

4) The number of items in column k is ≥ the number of items in column k+1.

Column 0 has 3 items: 99,70,33
Column 1 has 3 items: 93,67,42
Column 2 has 3 items:91,85, 25
Column 3 has 3 items:87,78,53
Column 4 has 2 items: 45,17

$3 \geq 3 \geq 3 \geq 3 \geq 2$

5) The item with the highest priority is found at P[0,0].

99 is the largest value in the entire list.