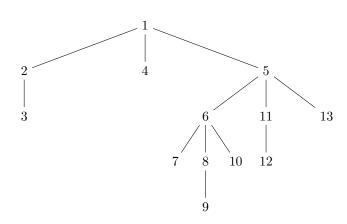
NOTES ON STACKS AND DEPTH FIRST SEARCH

ERIC MARTIN



Popping a path from the top of the stack (right of list) and pushing its extensions from right to left to the top of the stack.

[[1]]

$$[[1,5],[1,4]] [1,2]$$

$$\big[[1,5],[1,4],[1,2,3]\big]$$

$$[[1,5],[1,4]] [1,2,3]$$

$$[1,5]$$

$$[1,4]$$

$$[] \qquad [1,5]$$

$$\big[[1,5,13],[1,5,11]\big] \hspace{3cm} [1,5,6]$$

$$\big[[1,5,13],[1,5,11],[1,5,6,10],[1,5,6,8],[1,5,6,7]\big]$$

$$\big[[1,5,13],[1,5,11],[1,5,6,10],[1,5,6,8]\big] \hspace{1.5cm} [1,5,6,7]$$

$$\begin{bmatrix} [1,5,13], [1,5,11], [1,5,6,10] \end{bmatrix}$$

$$\begin{bmatrix} [1,5,6,8] \end{bmatrix}$$

$$\begin{bmatrix} [1,5,13], [1,5,11], [1,5,6,10], [1,5,6,8,9] \end{bmatrix}$$

$$[[1,5,13],[1,5,11],[1,5,6,10]]$$
 $[1,5,6,8,9]$

$$[[1,5,13],[1,5,11]]$$

$$[1,5,6,10]$$

$$[[1,5,13]] [1,5,11]$$

$$[1,5,13]$$
 $[1,5,11]$ $[1,5,11]$

$$[1, 5, 13]$$
 [1, 5, 11, 12]

[1,5,13]

COMP9021 Principles of Programming