A: Perform CKY (refer AFIL Unit 3 for rules)

S→NP VP

VP→VBG NNS

VP→VBZ VP

VP→VBZ NP

NP→DT NN

NP→JJ NNS

DT→a

NN→pilot

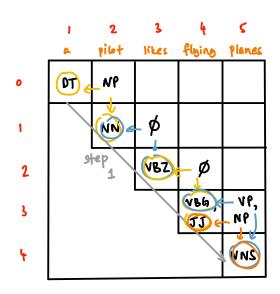
VBZ→ likes

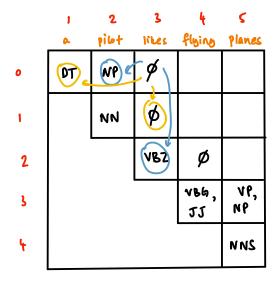
VBG → flying

JJ → flying

NNS→ planes

a pilot likes flying planes





S→NP VP

VP→VBG NNS

VP→VBZ VP

VP→VBZ NP

NP→DT NN

NP→JJ NNS

DT→a

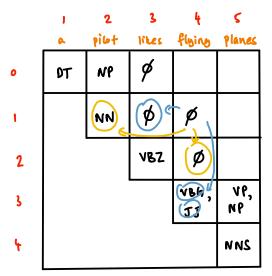
NN→pilot

VBZ→ likes

VBG → flying

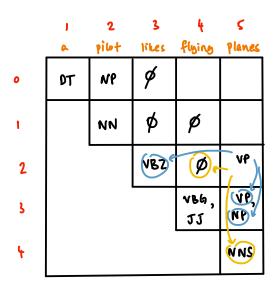
JJ → flying

NNS→ planes



 $VP \rightarrow VBG$ NNS $VP \rightarrow VBZ$ VP $VP \rightarrow VBZ$ NP $NP \rightarrow DT$ NN $NP \rightarrow JJ$ NNS $DT \rightarrow a$ $NN \rightarrow pilot$ $VBZ \rightarrow likes$ $VBG \rightarrow flying$ $JJ \rightarrow flying$ $NNS \rightarrow planes$

S→NP VP

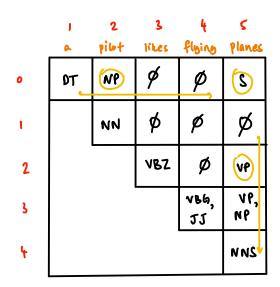


S→NP VP VP→VBG NNS VP→VBZ VP VP→VBZ NP NP→DT NN NP→JJ NNS DT→a NN→pilot VBZ→ likes VBG → flying JJ → flying NNS→ planes

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2			VBZ	ø	۷P
3				VB6, JJ	VP,
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S→NP VP VP→VBG NNS VP→VBZ VP VP→VBZ NP NP→DT NN NP→JJ NNS DT→a NN→pilot VBZ→ likes VBG → flying JJ → flying NNS→ planes



S \rightarrow NP VP VP \rightarrow VBG NNS VP \rightarrow VBZ VP VP \rightarrow VBZ NP NP \rightarrow DT NN NP \rightarrow JJ NNS DT \rightarrow a NN \rightarrow pilot VBZ \rightarrow likes VBG \rightarrow flying JJ \rightarrow flying NNS \rightarrow planes