

# Earley parser example

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## Grammar:

S -> V NP

NP -> DT NN

V -> book

DT -> this

NN -> flight

JJ -> nice

S -> NP

NP -> DT JJ NN

V -> run

DT -> that

NN -> book

## Sentence:

0/book 1/this 2/flight

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### Chart[0]

S -> . V NP [0,0] -- predict

S -> . NP [0,0] -- predict

V -> . run [0,0] -- nothing

V -> . book [0,0] -- scan

NP -> . DT NN [0,0] -- predict

NP -> . DT JJ NN [0,0] -- predict

DT -> . this [0,0] -- nothing

DT -> . that [0,0] -- nothing

### Chart[1]

V -> book . [0,1] -- complete

S -> V . NP [0,1] -- predict

NP -> . DT NN [1,1] -- predict

NP -> . DT JJ NN [1,1] -- predict

DT -> . this [1,1] -- scan

DT -> . that [1,1] -- nothing

### Chart[2]

DT -> this . [1,2] -- complete

NP -> DT . NN [1,2] -- predict

NP -> DT . JJ NN [1,2] -- predict

NN -> . Flight [2,2] -- scan

NN -> . book [2,2] -- nothing

JJ -> . Nice [2,2] -- nothing

### Chart[3]

NN -> . Flight [2,3] -- complete

NP -> DT NN . [1,3] -- complete

S -> V NP . [0,3]