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DTU/2K16/MC/13

NLP Assignment - 2 (Class)

Stack	INPUT	Action
$	i want to read a book $	shift
$ i	I want to read a book $	reduce pronoun
$		NP → Pronoun
$ Pronoun	Want to read a book $	reduce
$ NP	want to read a book $	shift
$ NP want	to read a book $	reduce verb → want
$ NP verb	to read a book $	shift
$ NP verb to	read a book $	reduce preposition → to
$ NP verb preposition	read a book $	shift
$ NP verb preposition read	a book $	reduce verb → read
$ NP verb preposition verb	a book $	shift
$ NP verb preposition verb a	book $	reduce Noun → book
" " " " " Det	book $	shift
$ NP verb preposition verb Det book	$	reduce noun → book
" " " verb NP	$	reduce NP → det Noun
$ NP verb preposition VP	$	reduce PP → preposition VP
$ NP verb PP	$	reduce VP → verb NP
$ NP VP	$	reduce S → NP VP
$ S	$	Matched, hence accepted

```
                          E
                         / \
                        /   VP
                       /   / \
                      /   /   PP
                     /   /   /  \
                    /   /   /    VP
                   /   /   /    /  \
                  /   /   /    /    NP
                 /   /   /    /    /  \
          pronoun  verb  preposition  verb  Det   Noun
             |      |       |          |     |      |
             i     want     to        read   a     book
```

E
VP
PP
VP
NP
pronoun — i
verb — want
preposition — to
verb — read
Det — a
Noun — book