

Sample str: CSCA08 is fun \empty CSCC24 is great

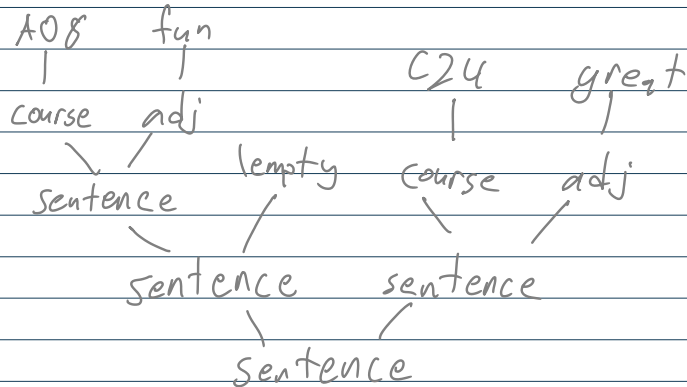
Exercise:

```

<sentence> ::= \empty |
              <course> is <adjective>. |
              <sentence> <sentence>
<course> ::= CSCA08 | CSCA48 | CSCB07 | CSCB09 | CSCC24
<adjective> ::= great | fun | awesome
  
```

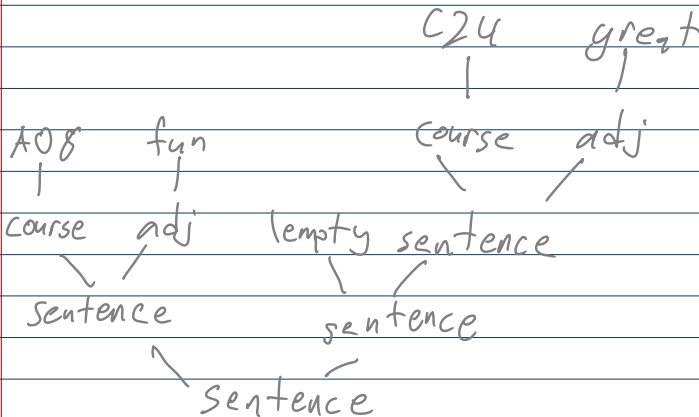
where \empty stands for the empty string.

- Demonstrate that the CFG is ambiguous.
- Provide a grammar that generates exactly the same language as above and is not ambiguous.



Two distinct parse trees

⇒ the CFG is ambiguous



The fix: change $\langle \text{sentence} \rangle \rightarrow \langle \text{phrase} \rangle | \langle \text{sentence} \rangle \langle \text{phrase} \rangle$
 $\langle \text{phrase} \rangle \rightarrow \langle \text{course} \rangle \text{ is } \langle \text{adjective} \rangle | \text{\empty}$

