



UNIVERSITY OF  
TORONTO

**Computer Science**

**Assignment Project Exam Help**

**<https://powcoder.com>**

**Add WeChat powcoder**

## Assignment Project Exam Help

- Semantics vs agreement
- SubCat
- Gap and Movement
- Semantic head driven generation
- (Beta reduction and quantifier)

<https://powcoder.com>

Add WeChat powcoder

## Agreement (agr)

- Grammatical features of words.
- Examples: number, case, aspect, tense, person.
- In English, nouns have two types of number: singular and plural.
- Should be used to control what sentence can be generated and what should be rejected.

## Semantics (sem)

- The "meaning" of words.
- Both *cat* and *cats* should have the same sem: cat.
- For this assignment, count means the actual count of the things.
- Usually can't be used in controlling what sentence can (not) be generated/rejected.

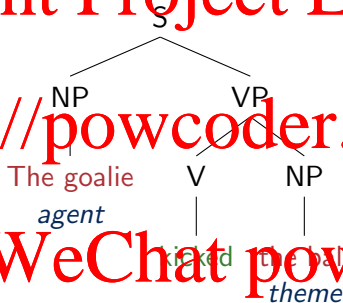
## The Active Voice

*The goalie kicked the ball.*

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder



`sem:(kick, agent:goalie, theme:ball)`

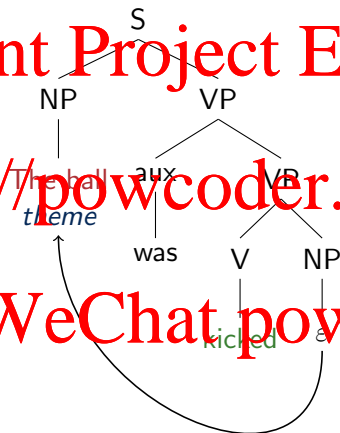
# The Passive Voice

*The ball was kicked.*

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder



`sem:(kick, agent:?, theme:ball)`

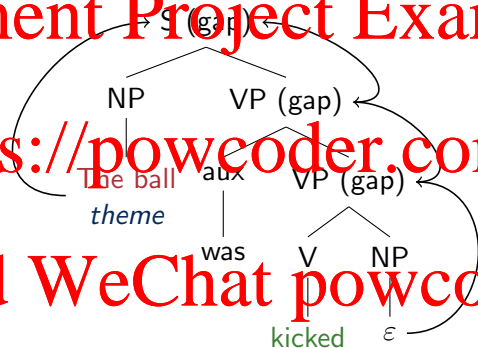
# The Passive Voice

*The ball was kicked.*

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder



sem:(kick, agent:?, theme:ball)

# Assignment Project Exam Help

TLDR: Replace `cat>` with `sem_head>` on all the semantic heads.

- An NP's semantic head is the N.
- A VP's semantic head is the V.
- A CLP semantic head is the CL.
- An S semantic head is the VP.

<https://powcoder.com>

Add WeChat powcoder

# Assignment Project Exam Help

```
gen(s, sem:(kick, agent:goalie, theme:ball)).
```

- Top-down or bottom-up generator too slow to traverse all of the possible rules.
- However, we can utilize the fact that the semantics (sem) of the **semantic head** is exactly the same as the product (left hand side).

Add WeChat powcoder