

COMP90048: Workshop 6

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Logic Programming

Intro

- Logic programming allows us to solve problems by specifying **what must be true** of the answer.
- It is related to declarative programming: strong type systems use the same form of logic.

Setting the stage

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?- staffMember(eleanor) .
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```

Setting the stage

- **Atom:** similar to a value, written in lowercase: `eleanor`
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- **Clause:** conjunction of predicates

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?-staffMember(eleanor), gradStudent(eleanor).  
  
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"and"

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?- staffMember(Person), gradStudent(Person).
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Person = eleanor;
```


```
Person = mak.
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- Prolog uses **resolution** to try to assign values to variables.

```
?- staffMember(Person), gradStudent(Person).
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Person = eleanor;
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```

Resolution: `staffMember(Person), gradStudent(Person).`

```
staffMember(eleanor).  
staffMember(mak).  
staffMember(peter).
```

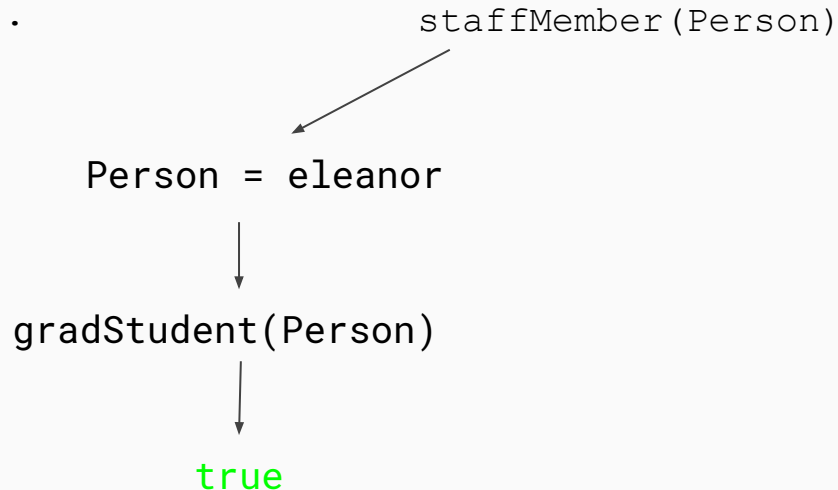
```
staffMember(Person)
```



```
Person = eleanor
```

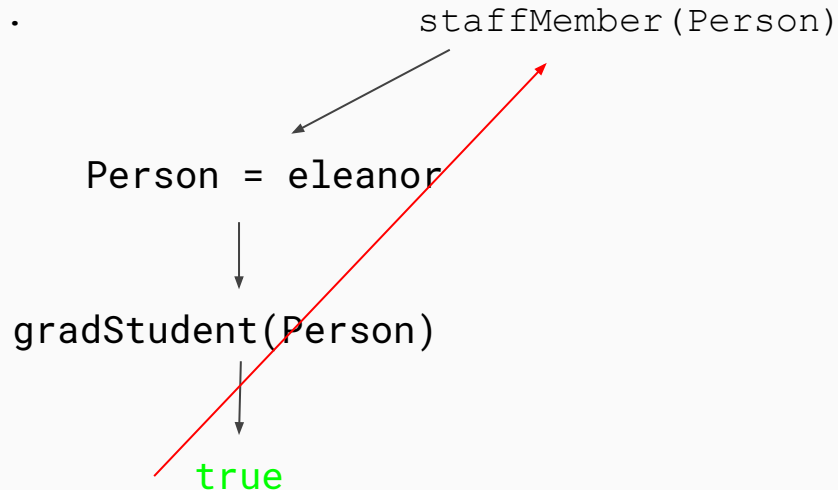
Resolution: `staffMember(Person), gradStudent(Person).`

`staffMember(eleanor).`
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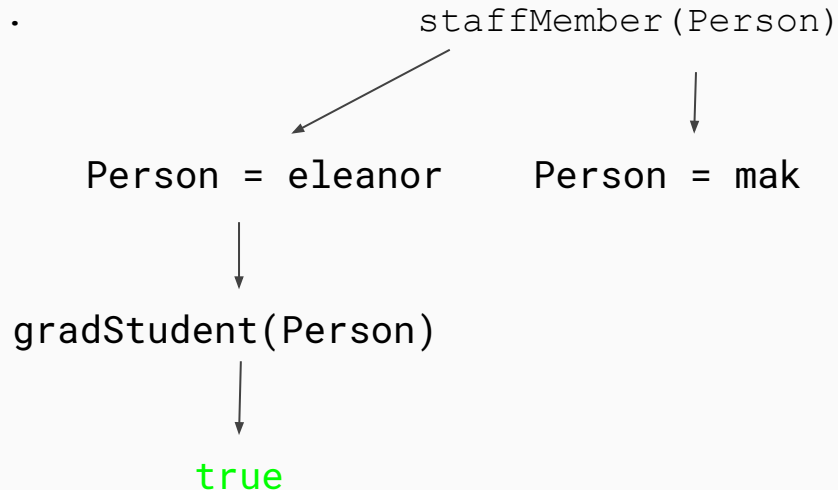
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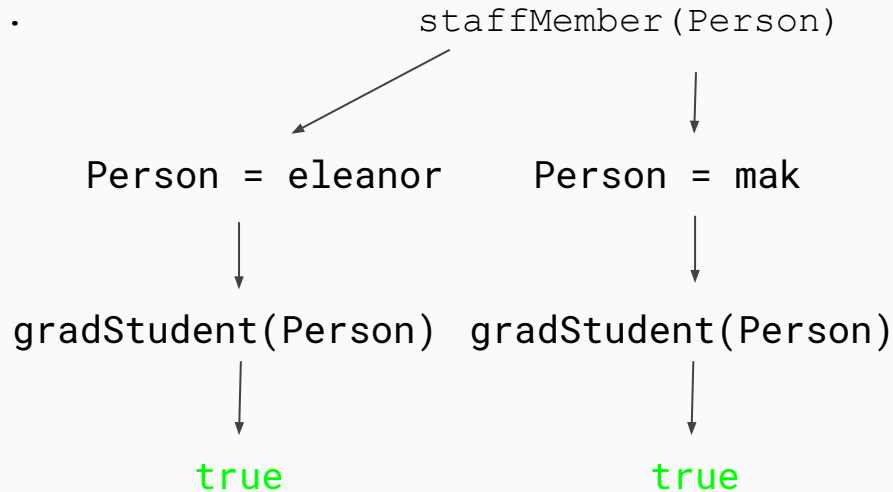
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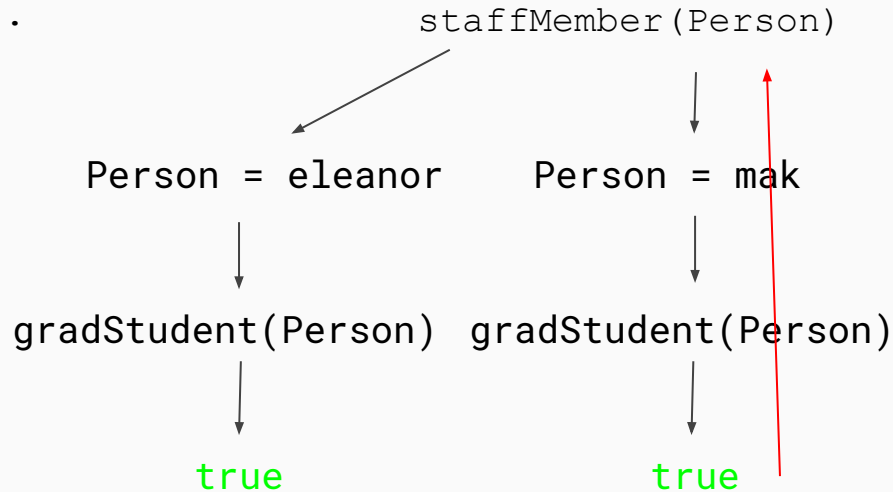
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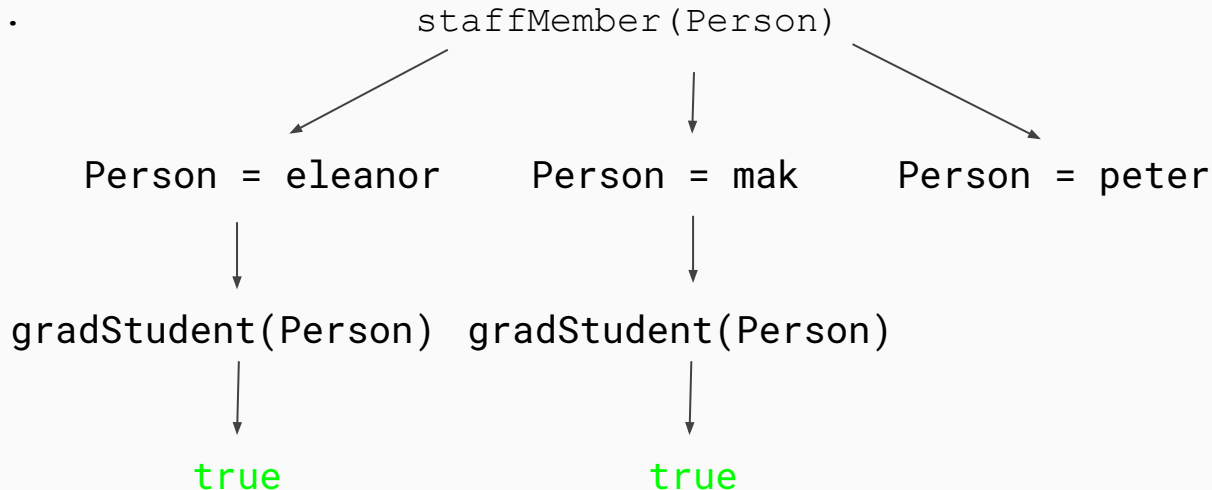
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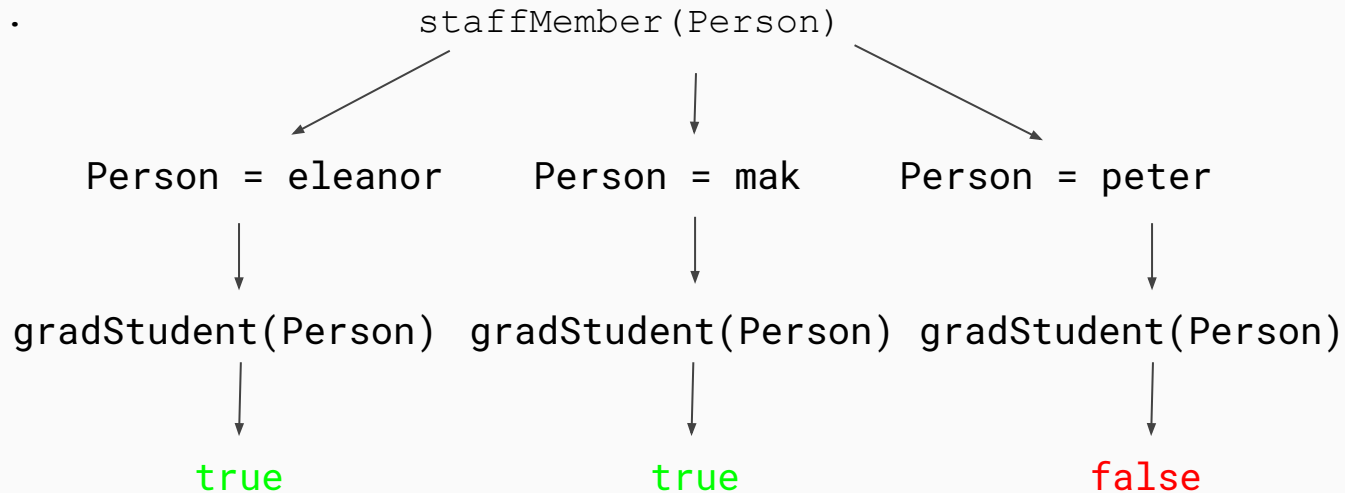
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Continue with Grok Workshop 6
(Week 7).