



Jaseci AI Kit

Coursework Series : Week 5

Coursework Outline & Outcomes

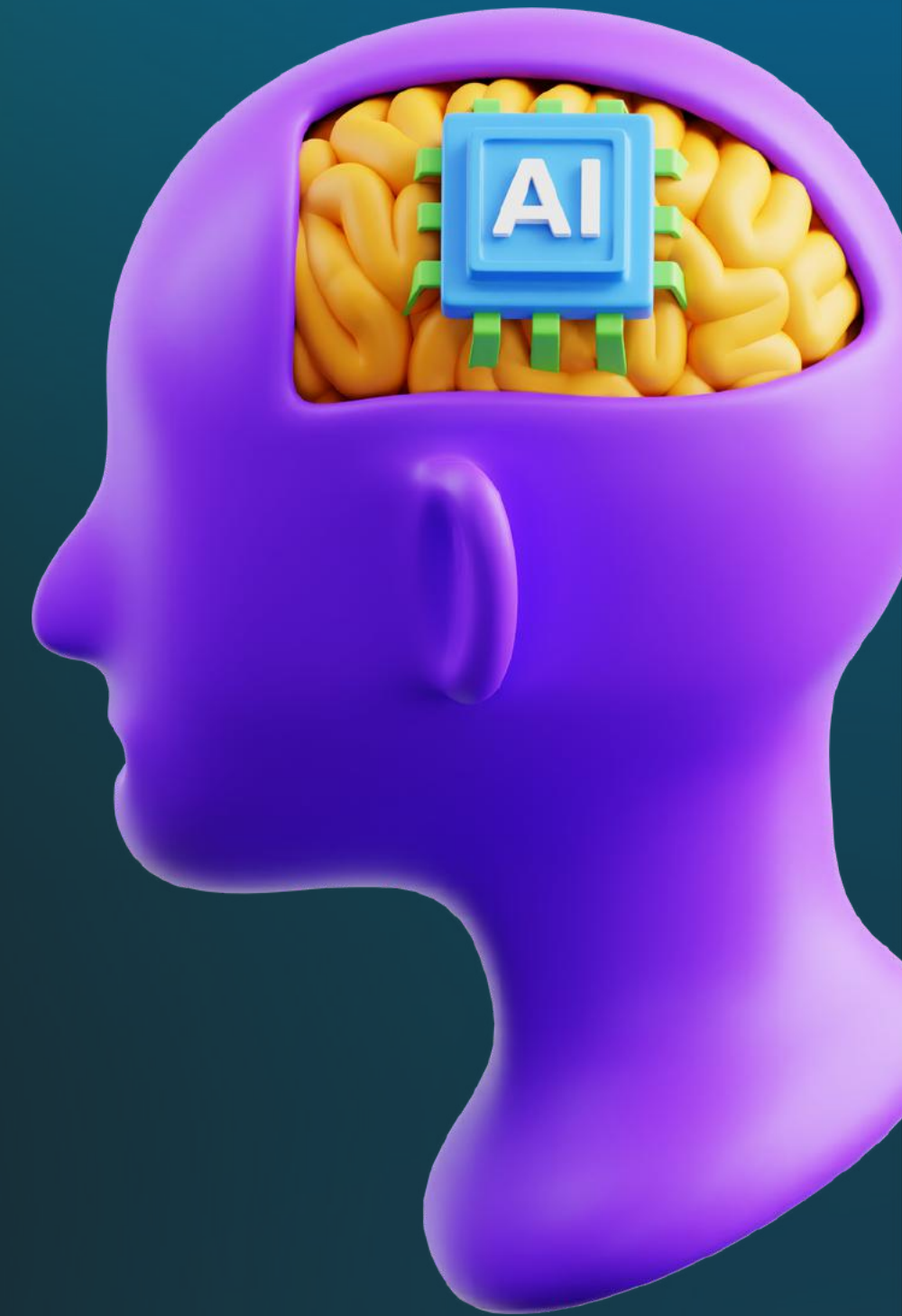
What are the AI Models
provided in Jaseci AI Kit?

Example Usecase of a Jaseci AI
Model with Reallife example

How to Use AI Models in JAC
Language

What are Actions?

Actions share the semantics as traditional function calls with returns, however these primarily serve to enable bindings to the functionality described outside of Jac/Jaseci (ie in a python module). These are comparable to library calls in conventional programming languages. Actions are essentially bindings to external functionality takes the form of a Jaseci action library's direct connection to Python implementations.



Jaseci AI Kit

Jaseci AI Kit is a collection of state-of-the-art machine learning models from different domains (NLP, Computer Vision, Speech etc.) that are readily available to load into jaseci. Jaseci AI Kit consist of 4 Main Python Packages



JAC NLP
(Natural Language
Processing)



JAC Speech
(Speech)



JAC Vision
(Computer Vision)



JAC Misc
(Other useful
stuff)

Using Jaseci AI Kit

```
pip install jac_misc[all] # Installs all the modules present in the  
jac_misc package
```

```
pip install jac_misc[translator] # Installs the translator module  
present in the jac_misc package
```

```
pip install jac_misc[cluster,pdf_ext] # Installs the cluster and  
pdf_ext module present in the jac_misc package
```



Using Jaseci AI Kit

Load the Required Model

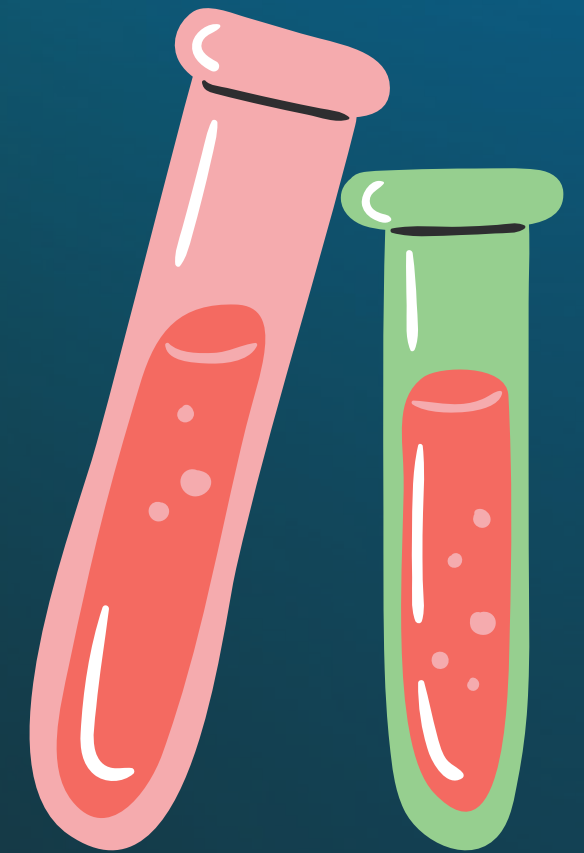
```
jaseci > actions load module jac_misc.translator
```

Check the actions provided by the module

```
jaseci > actions list
```

Test run an action

```
jaseci > actions call jac_misc.translate -ctx '{"text": "Hello, how are  
you?", "src_lang": "en_XX", "tgt_lang": "de_DE"}'
```



Using in JAC

Example JAC Code to translate text from Hindi to English:

```
walker test_translate_hindi_eng {  
    can translator.translate;  
    report translator.translate("नमस्ते, आप कैसे हैं?", "hi_IN", "en_XX"); # Returns ["Hello, how are you?"]  
}
```

Example JAC Code to translate text from English to German:

```
walker test_translate_eng_german {  
    can translator.translate;  
    report translator.translate("Hello, how are you?", "en_XX", "de_DE"); # Returns ["Hallo, wie geht es dir?"]  
}
```

Next week

Create an AI Application with an example Frontend

ASSIGNMENT 3 (Deadline 30th April)

Groups of 5, Need to build the CanonICAi from scratch following the docs and using the experience gathered build an application of any kind.