#### RL module & structure

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### Outline



**Require Softwares and modules** 



**RLcard module flow** 



**Customized Agent** 



**Customized Game** 



**Customized Env** 

# Require Softwares and modules



**Softwares** 

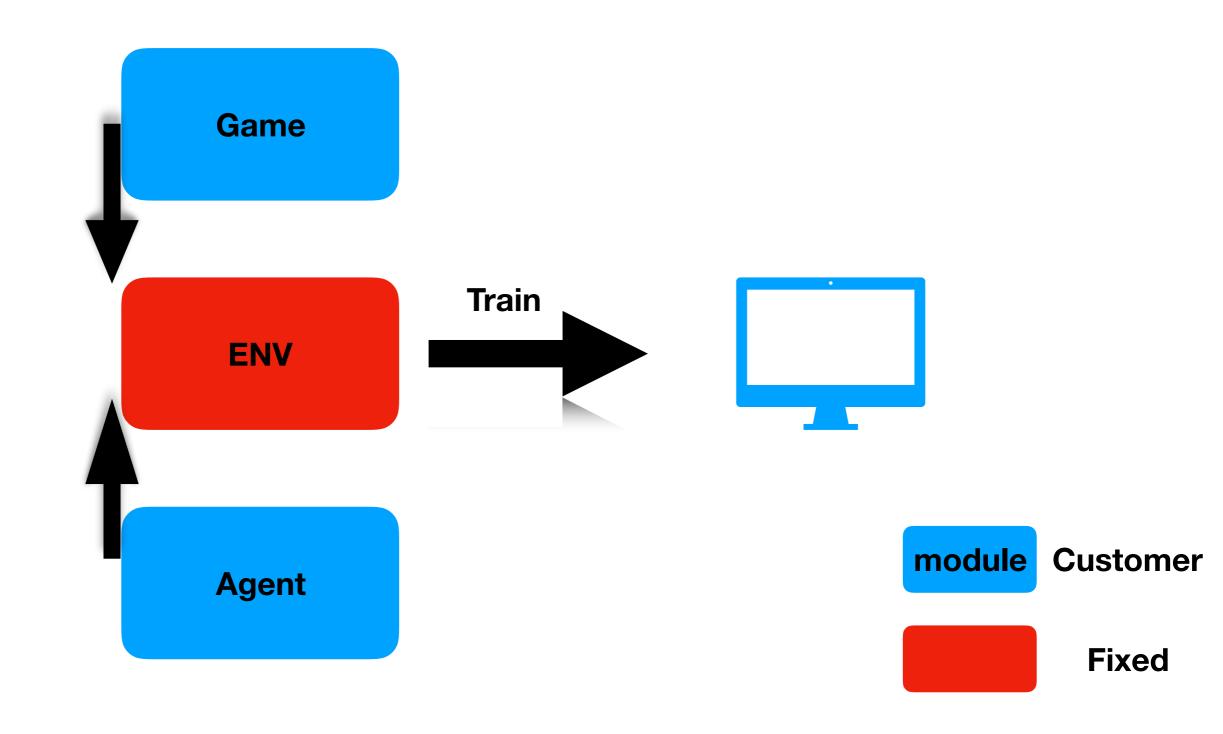




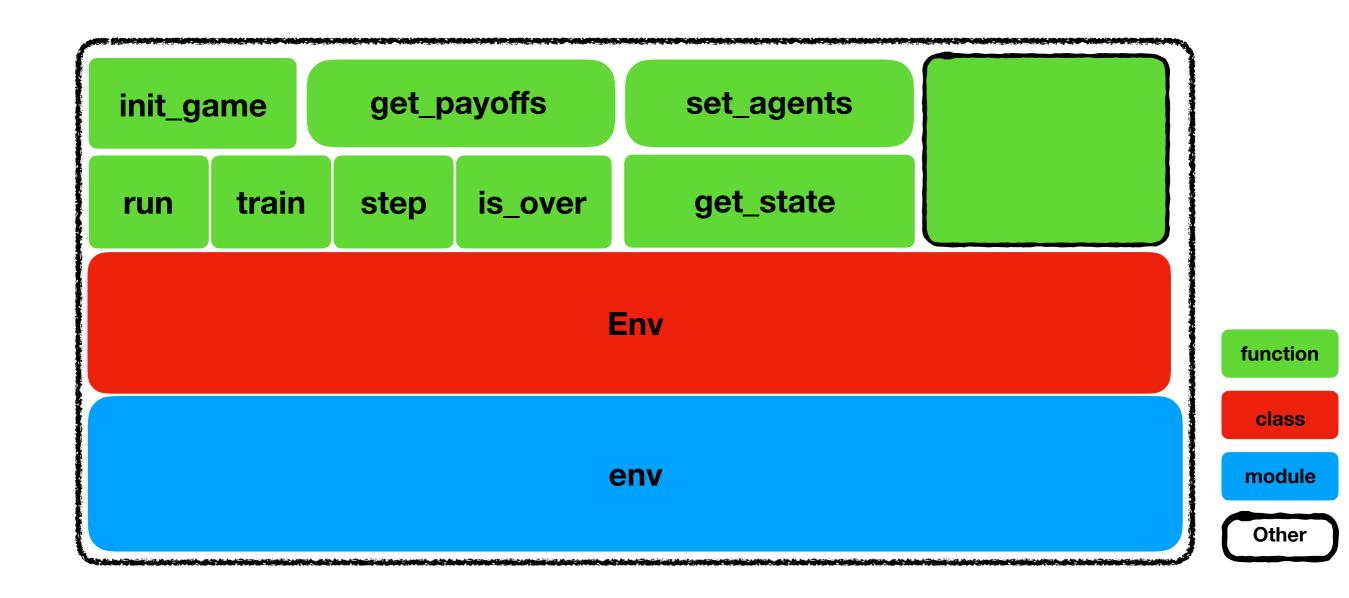
**Modules** 

- Tensorflow:1.14.0
- Numpy:1.16.4
- Scikit-learn:0.21.3
- Keras:2.2.5
- Pandas:1.0.3

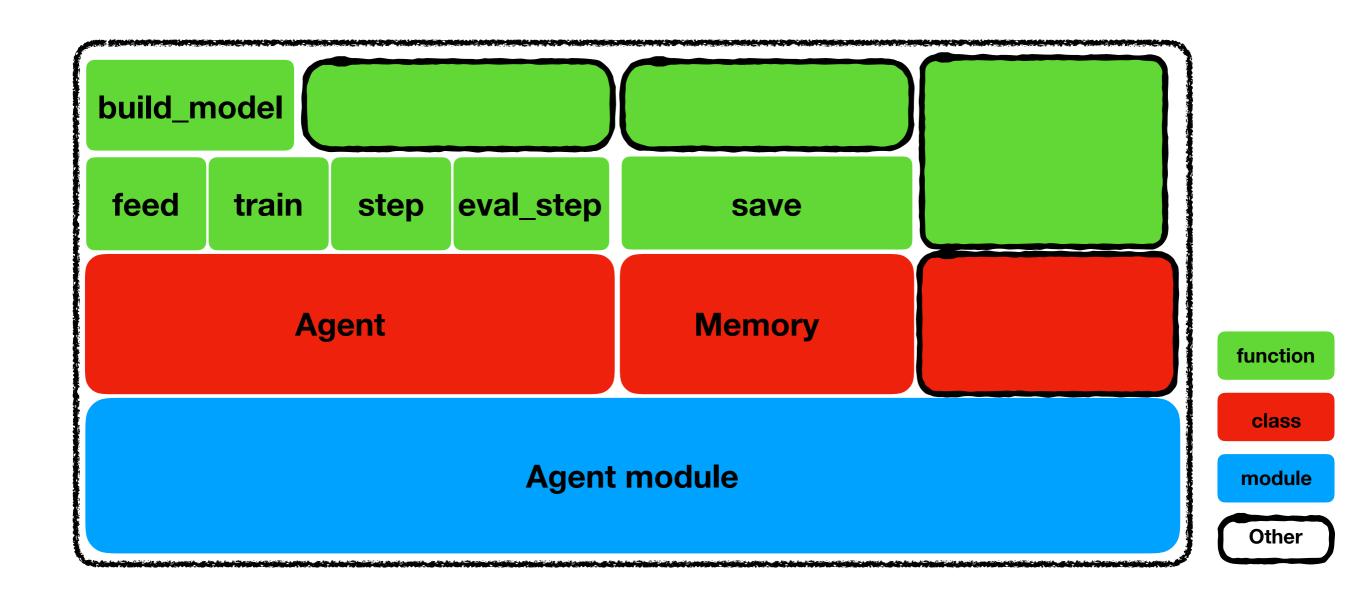
#### rlcard flow



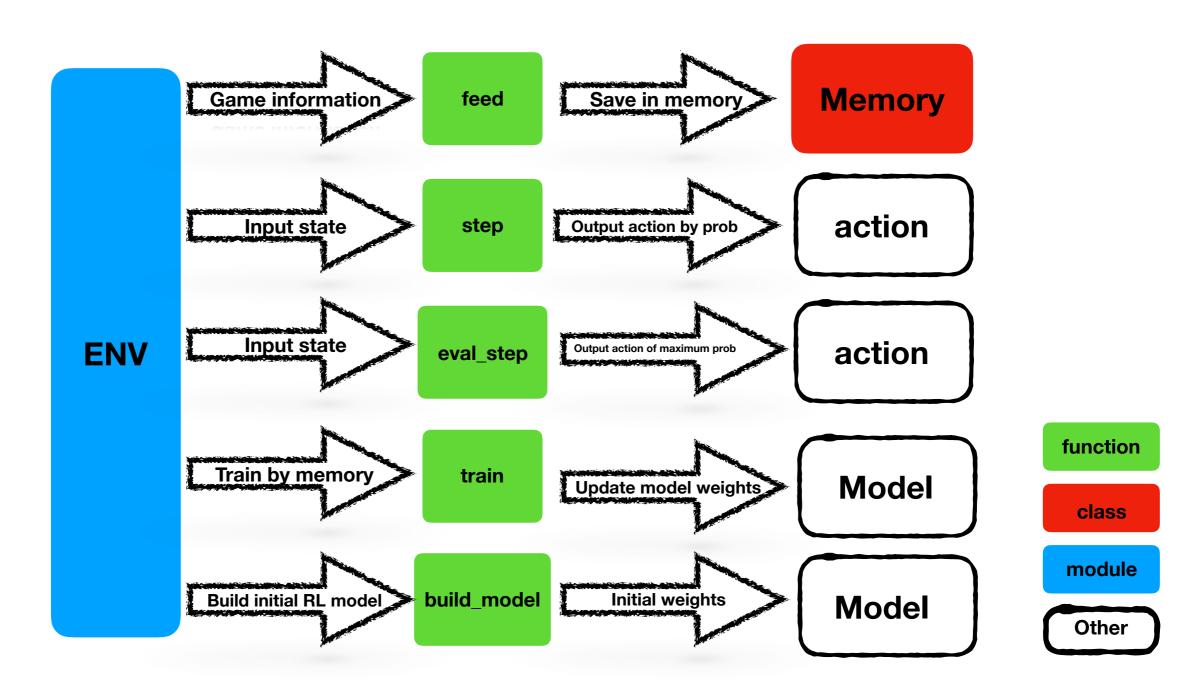
## Env



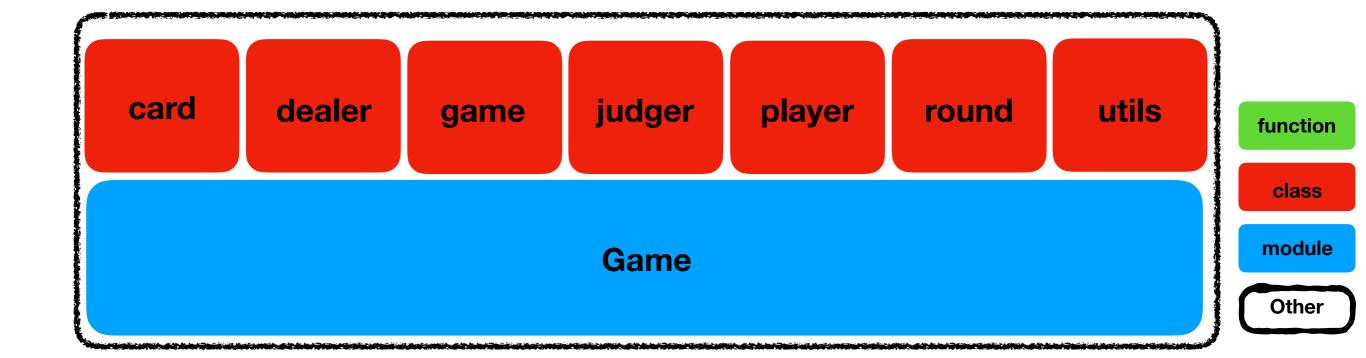
# Customized Agent



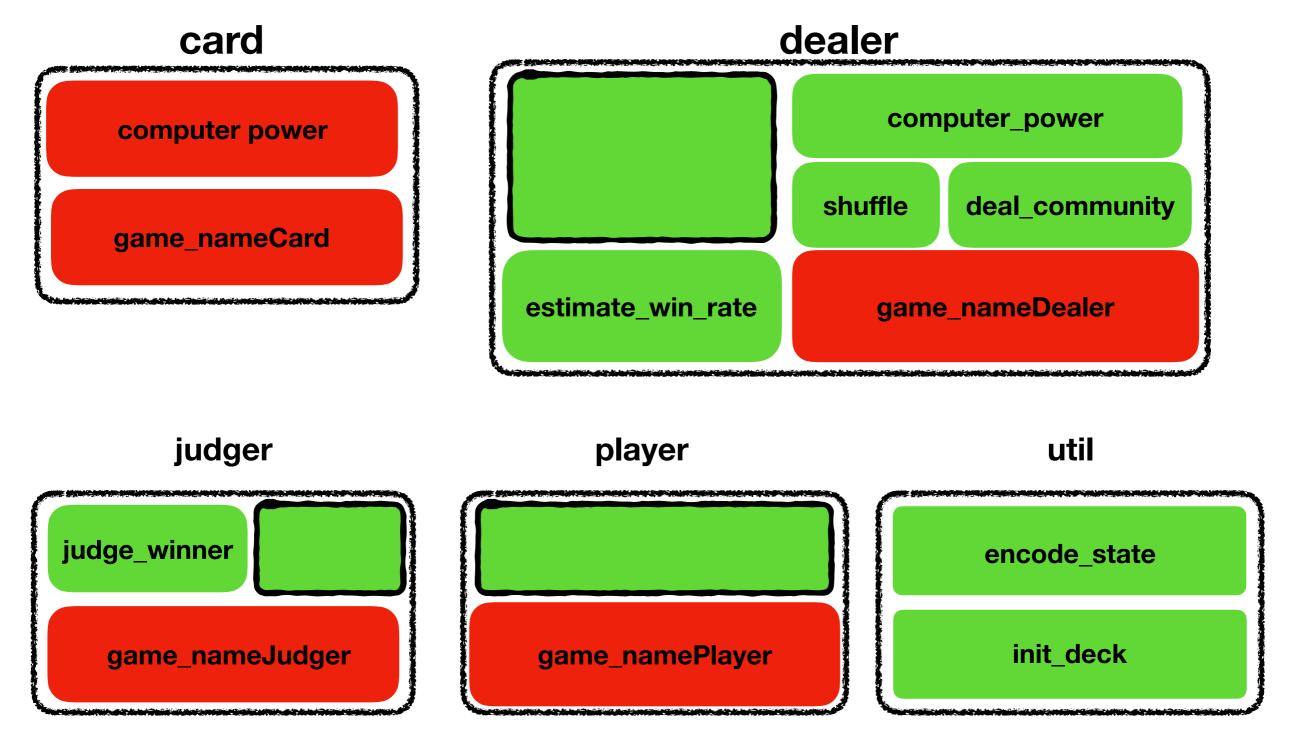
# Customized Agent



## Customized Game



## Customized Game



## **Customized Game**

game round

get\_player\_numget\_action\_numget\_player\_idget\_payoffsget\_legal\_actionsis\_overinit\_gamestepget\_state
game\_nameGame

get\_legal\_actions judge

proceed\_round

game\_nameRound

## **Customized Env**

get\_legal\_actions get\_payoffs

extract\_state decode\_action

game\_nameEnv