Snake AI reference

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Introduce

This is a snake game

A snake can go either up, down, left, right. When it's head touch a food, it eat the food and get the score of the food. When it's head crashes into any snake's body(including it self) or a block, it die and it's body become food. As a specific case, if two snakes' head crash together, both die.

To be a participent

The only things you should care are the *Field* and*Snake* and *FieldObj*.

Let's demonstrate it by examples!

First, suppose field is a instance of Field,

```
field = Field((20, 10))
```

Then you can use the method field.getContentAt(pos) to get the content at pos, it will return a FieldObj. This class(and it's derived classes) has the members which is useful to you,

- FieldObj.type

- FieldObj.pos

- Food.score

- Body.owner

Here is more examples,

```
content = field.getContentAt((10, 2))
if content == None:
    # it's an empty place
elif content.type == Field.FOOD:
    print content.score
elif content.type == Field.BODY:
    print content.owner
```

All this kind of constants are:

- Field.FOOD

- Field.BODY

- Field.BLOCK

- Field.LEFT

- Field.DOWN

- Field.RIGHT

- Field.UP

What you actually should do is to derive the base snake class Snake. Your class should implement the methods:

response() This will be called in each game loop, it should return a direction it choose to go in this loop.

And the these members may be useful to you:

body It's a list, each of it's element is a Body class, a derive class of FieldObj.

direction It's one of Field.UP, Field.DOWN, Field.LEFT, Field.RIGHT.

field The snake is on this field

name The snake's name, shound not conflict with others

See the example code file "stupidAI.py" for more details.