Exercise 1

- Define a class ‘Adventurer’ that consists of two attributes:
  - Hit points: a whole number value.
  - Name
- As instances of the class are created these attributes will be set to these initial values:
  - Hit points are negative one.
  - The name is “Nameless”
- Define and call a starting function.
  - An instance of an adventurer will be created.
  - The attributes will be displayed onscreen.

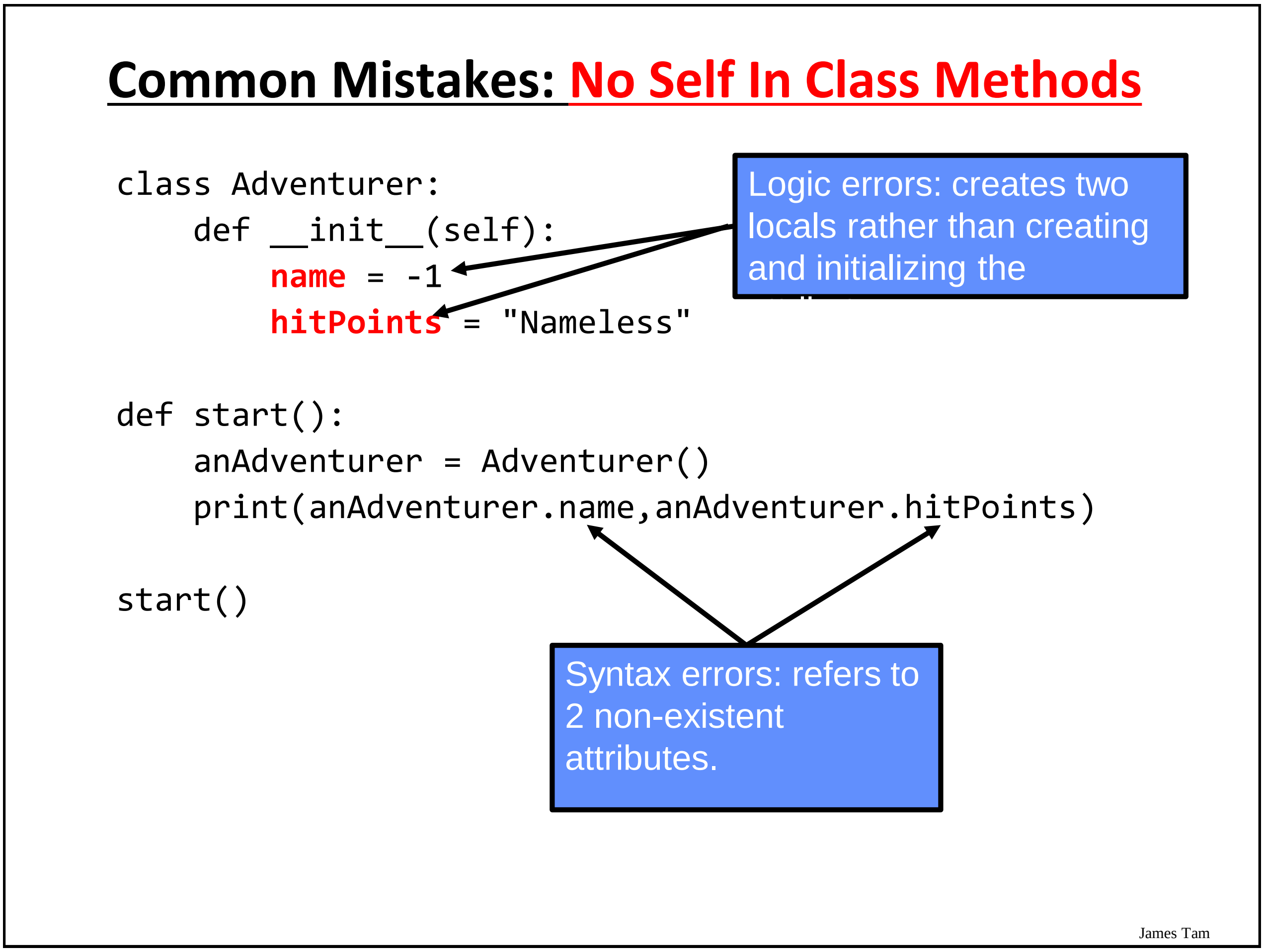
James Tam

Solution

```
class Adventurer:
    def __init__(self):
        self.name = -1
        self.hitPoints = "Nameless"

def start():
    anAdventurer = Adventurer()
    print(anAdventurer.name,anAdventurer.hitPoints)

start()
```



Common Mistakes: No Self In Class Methods

```
class Adventurer:
    def __init__(self):
        name = -1
        hitPoints = "Nameless"

def start():
    anAdventurer = Adventurer()
    print(anAdventurer.name,anAdventurer.hitPoints)

start()
```

Logic errors: creates two locals rather than creating and initializing the

Syntax errors: refers to 2 non-existent attributes.

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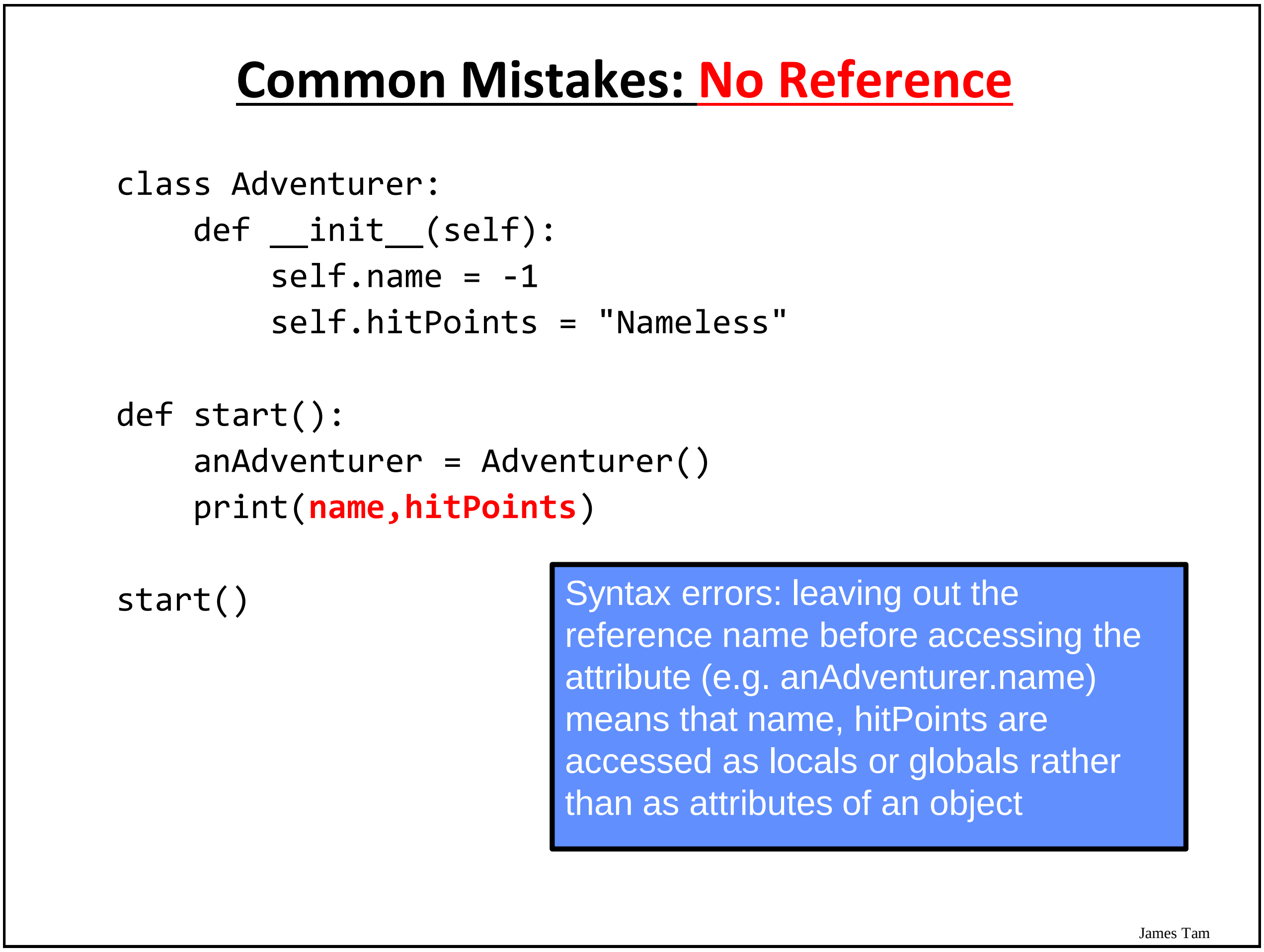

Common Mistakes: No Reference

```
class Adventurer:
    def __init__(self):
        self.name = -1
        self.hitPoints = "Nameless"

def start():
    anAdventurer = Adventurer()
    print(name,hitPoints)

start()
```

Syntax errors: leaving out the reference name before accessing the attribute (e.g. anAdventurer.name) means that name, hitPoints are accessed as locals or globals rather than as attributes of an object

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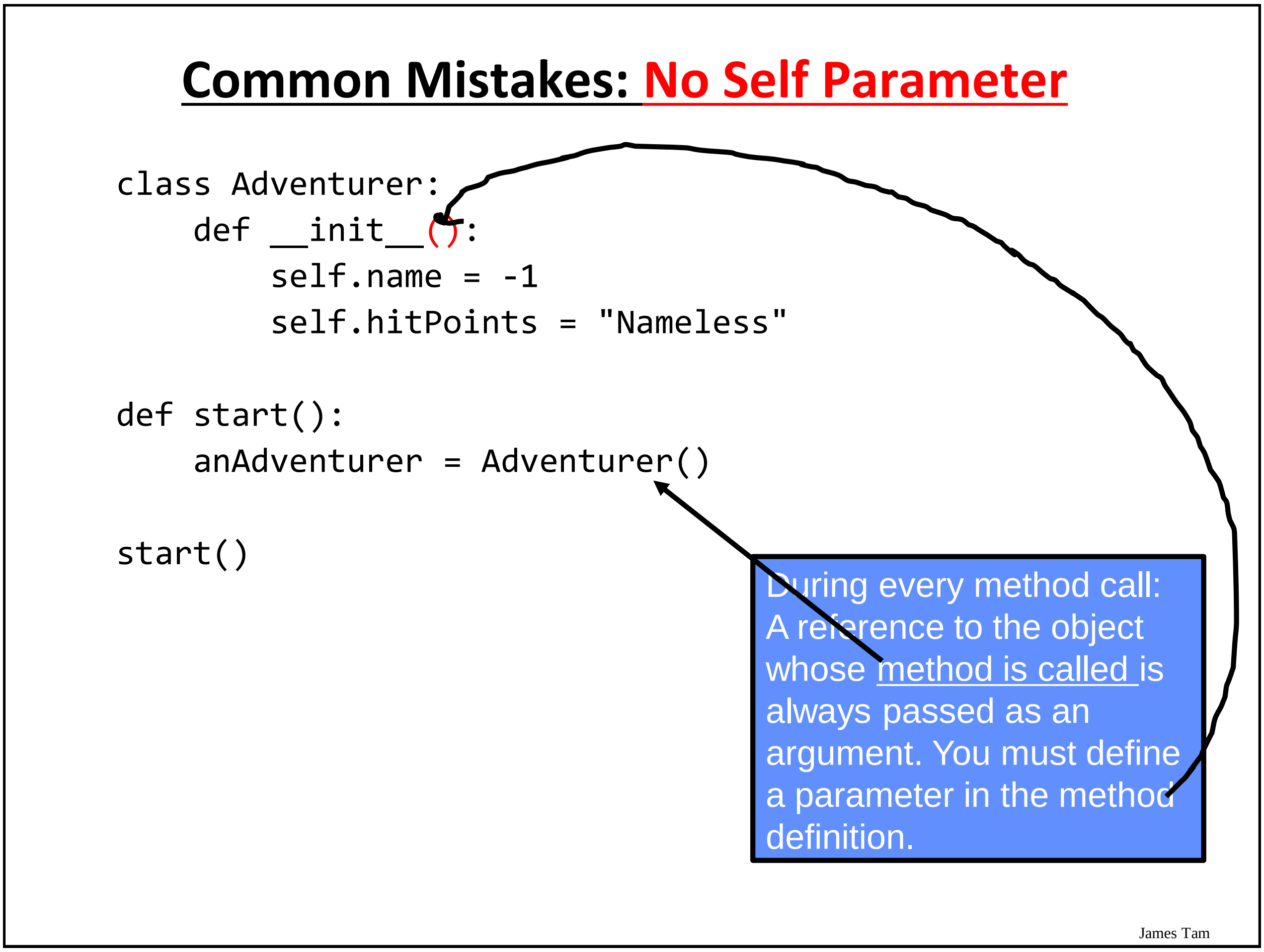

Common Mistakes: No Self Parameter

```
class Adventurer:
    def __init__():
        self.name = -1
        self.hitPoints = "Nameless"

def start():
    anAdventurer = Adventurer()

start()
```

During every method call: A reference to the object whose method is called is always passed as an argument. You must define a parameter in the method definition.

James Tam