

Screenshots for Checkpoints 1-6

```
shu/Coding Projects/School/CIS 343/Lab9_Class/main/noggin.py"
>>>> PNoggin Interactive Shell <<<<<
> class ExampleClass { example_method() { return "Im a class"; }} print(ExampleClass);
<class ExampleClass>
> class Bagel {} def bagel = Bagel(); print(bagel);
<instance Bagel>
> class ExampleClass {}
> def example_instance = ExampleClass();
> example_instance.f1 = ExampleClass();
> print(example_instance.f1);
<instance ExampleClass>
> example_instance.f1.f2 = ExampleClass();
> print(example_instance.f1.f2);
<instance ExampleClass>
<instance Bagel>
> class ExampleClass {}
> def example_instance = ExampleClass();
> example_instance.f1 = ExampleClass();
> print(example_instance.f1);
<instance ExampleClass>
> example_instance.f1.f2 = ExampleClass();
> print(example_instance.f1.f2);
<instance ExampleClass>
> example_instance.f1 = ExampleClass();
> print(example_instance.f1);
<instance ExampleClass>
> example_instance.f1.f2 = ExampleClass();
> print(example_instance.f1.f2);
<instance ExampleClass>
> print(example_instance.f1.f2);
<instance ExampleClass>
<instance ExampleClass>
> example_instance.f1.f2 = ExampleClass();
> print(example_instance.f1.f2);
<instance ExampleClass>
> print(example_instance.f1.f2);
<instance ExampleClass>
<instance ExampleClass>
> example_instance.f1.f2 = 123;
> example_instance.f1.f2 = 123;
> print(example_instance.f1.f2);
> print(example_instance.f1.f2);
123.0
```

```
shu/Coding Projects/School/CIS 343/Lab9_Class/main/noggin.py"
>>>> PNoggin Interactive Shell <<<<<
> class Cake { taste() { def adjective = "delicious"; print("The " + this.flavor + " cake is " + adjective + "!"); }} def cake = Cake(); cake
.flavor = "German chocolate"; cake.taste();
The German chocolate cake is delicious!
> class Foo { init() { return; }} print(Foo());
<instance Foo>
> class Foo { init() { return "something else"; }}
[line 0] Error at 'return': Cannot return a value from an initializer function
> class Foo { init(init_value) { this.f1 = init_value; }} print(Foo(42).f1);
42.0
> █
```

Class Declaration and Creating Instances

Noggin behaves as expected when running the test code for Checkpoints 1 and 2. We can now declare classes, and create instances in connection with the class. The print functionality also works and properly describes what we are printing.

Methods and Fields

Noggin behaves as expected when running the test code for Checkpoints 3 and 4. We can now make methods and we can pass arguments.

Edge Cases

```
shu/Coding Projects/School/CIS 343/Lab9_Class/main/noggin.py"
>>>> PNoggin Interactive Shell <<<<<
> print(42.f1);
Error: Only instances have properties
[line 0]
> class A { init() { this.x = 10; }} def a = A(); print(a.y);
Error: Undefined property y
[line 0]
> 42.f1 = "hello";
[line 0] Error at '=': Invalid assignment target
> █
```

All three edge cases properly raise their respective errors and prevent you from doing weird things.

This and Initializer

Noggin behaves as expected when running the test code for Checkpoints 5 and 6. We can now use the keyword this and use initializer functions.

Edge Cases

```
shu/Coding Projects/School/CIS 343/Lab9_Class/main/noggin.py"
>>>> PNoggin Interactive Shell <<<<<
> this.hello = "15";
[line 0] Error at 'this': Cannot use this outside a class
> █
```

Prevents you from using this outside of classes.