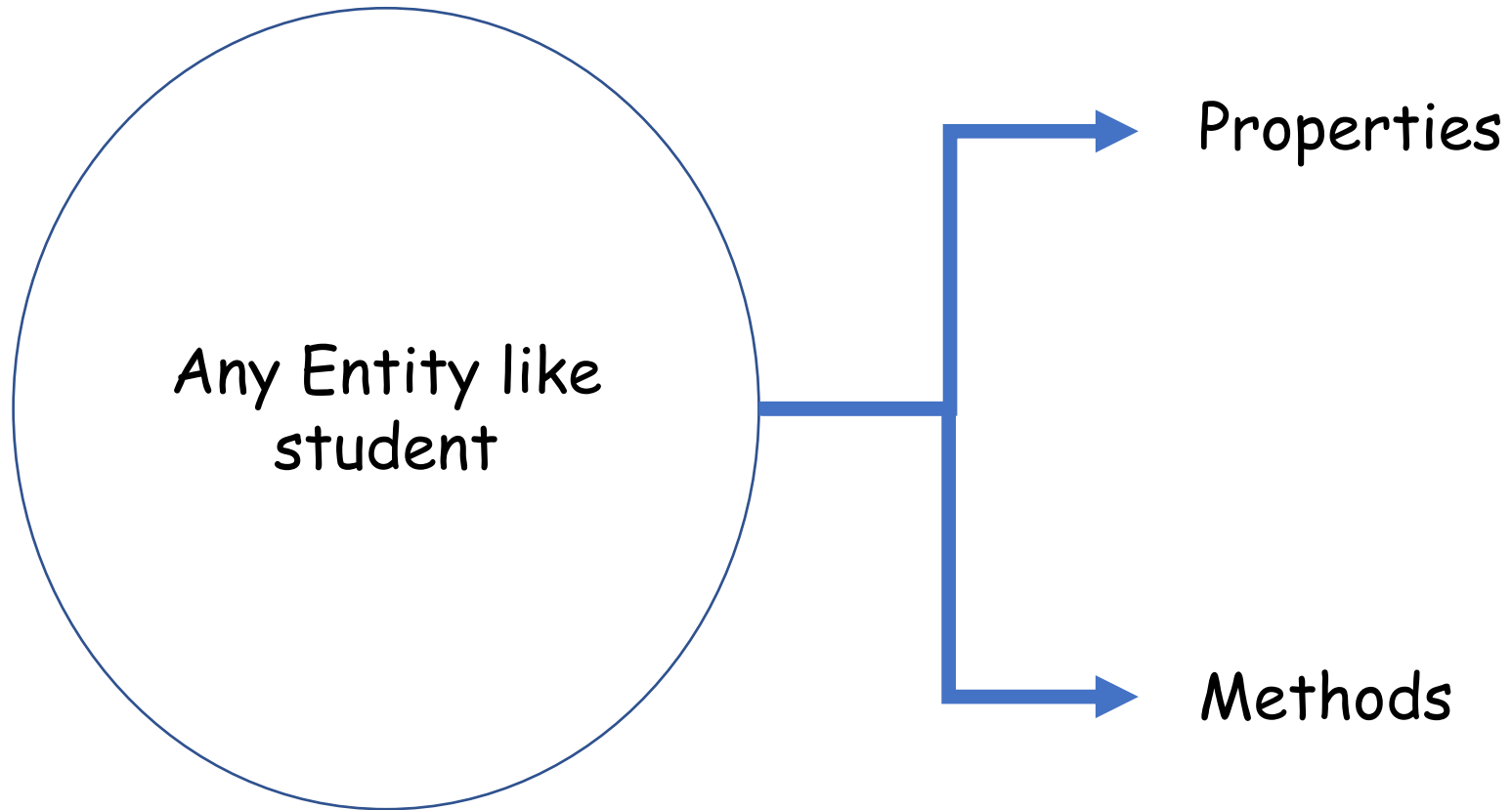


Object Oriented Paradigm

Partha Das Chowdhury



Modelling a system



We model such entities using a Class

```
class Students
```

```
    name
```

```
    course
```

```
    marks
```




Properties

```
    calculategrades
```



Methods

```
    students
```

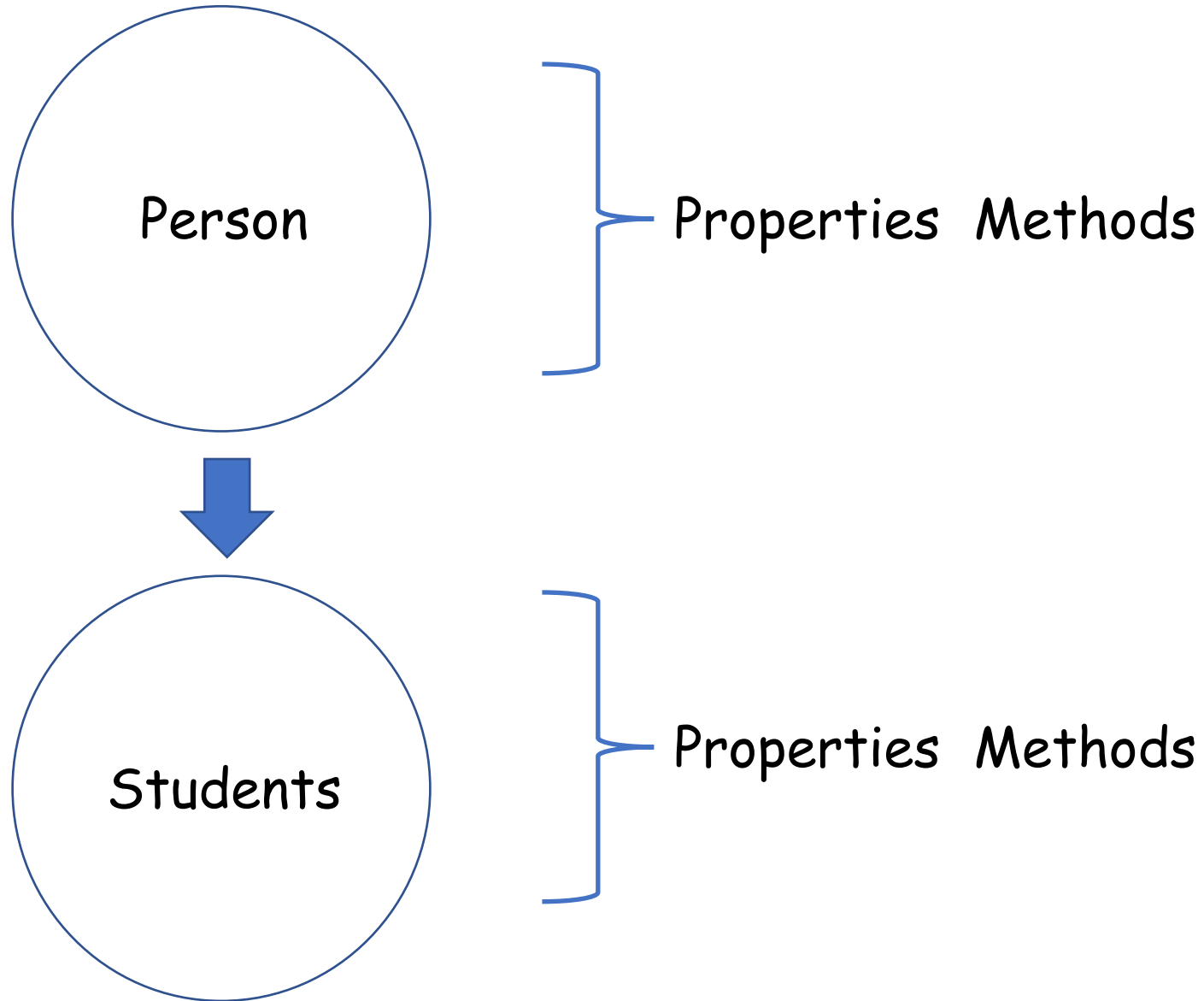


Constructor

- Classes do not exist in the memory
- Instances of class known as objects do
- Classes have a specific method known as Constructors
- The constructors initialize values into objects

joe - new students (Joe Gardiner, Software Tools, 100)

Inheritance



Users > ja21121 > Documents > Teaching 2023 > JS class.js

```
1  class Students {
2      name;
3      constructor(name){
4          this.name = name;
5
6      }
7      myname(){
8          console.log(this.name);
9      }
10 }
11 const joe = new Students("Joe Gardiner");
12 joe.myname();
```

PROBLEMS

OUTPUT

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- JavaScript objects are lightweights
- Objects can be created without using a class using literals
- Objects can be created using functions with a constructor

Literals

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```
1  ✓ const Students = {  
2      name: "Joe Gardiner",  
3      course: "Software Tools",  
4  }  
5  
6  
7  console.log(Students.name);  
8  console.log(Students.course);
```

PROBLEMS

OUTPUT

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Joe Gardiner

Software Tools

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Users > ja21121 > Documents > Teaching 2023 > JS olite

```
1  ✓ function Students(name){  
2    |     this.name = name;  
3    | }
```

4

```
5 var joe = new Students("Joe Gardiner");  
6 console.log(joe.name);
```

7

Functions

PROBLEMS

OUTPUT

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Joe Gardiner

Inheritance

```
7   Students.prototype.city="Bristol";
8   console.log(joe.city);
9   var marvin = new Students("Marvin Kopo");
10  console.log(marvin.name);
11  console.log(marvin.city);
12
```

PROBLEMS

OUTPUT

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```
ja21121@C02DWCVPML7H Teaching 2023 % node olitera
Joe Gardiner
Bristol
Marvin Kopo
Bristol
```

Thank You