

# Lecture

# \_\_getitem\_\_()





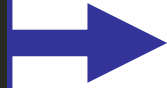
`__getitem__()`

`__getitem__()`



`__getitem__()`

`__getitem__()`



`obj[<index>]`



## `__getitem__()`

```
class Classroom:

    def __init__(self, code, max_num_students):
        self.code = code
        self.max_num_students = max_num_students
        # The list of students is initially empty
        self.students = {}

    def add_student(self, student):
        if len(self.students) < self.max_num_students:
            self.students[student.name] = student.grades

    def remove_student(self, student):
        del self.students[student.name]

    def __getitem__(self, student_name):
        return self.students[student_name]

class Student:

    def __init__(self, name, age, grades):
        self.name = name
        self.age = age
        self.grades = grades
```



## `__getitem__()`

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    def __getitem__(self, student_name):
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class Student:

    def __init__(self, name, age, grades):
        self.name = name
        self.age = age
        self.grades = grades
```



## `__getitem__()`

```
>>> classroom = Classroom("C05", 30)
>>> classroom.add_student(Student("Nora", 15, [80, 65, 100]))
>>> classroom.students
{'Nora': [80, 65, 100]}
>>> classroom["Nora"]
[80, 65, 100]
```



## `__getitem__()`

```
>>> classroom = Classroom("C05", 30)
>>> classroom.add_student(Student("Nora", 15, [80, 65, 100]))
>>> classroom.students
{'Nora': [80, 65, 100]}
>>> classroom["Nora"]
[80, 65, 100]
```

Now you can index the instance