



ADAM MICKIEWICZ UNIVERSITY IN POZNAŃ

Faculty of English

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PYTHON PROGRAMMING

CLASS 02



Run „Teams”

Start your IDE

Start Moodle

AGENDA:

- Create a file „*class_pp_02.py*”
 - GIT
 - Complex list sorting
 - Lambda function
 - Push to GitHub, alternatively Copy/Paste to Teams
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LIST SORTING

1, sort ascending, mutates

```
L1 = [5, 3, 6, 2, 7, 8]
```

```
L1.sort()
```

```
print(L1)
```

2 sort ascending

```
L1 = [5, 3, 6, 2, 7, 8]
```

```
L2 = sorted(L1)
```

```
print(L1)
```

```
print(L2)
```



LIST SORTING

3, sort descending, mutates

```
L1 = [5, 3, 6, 2, 7, 8]
```

```
L1.sort(reverse=True)
```

```
print(L1)
```

4 sort descending

```
L1 = [5, 3, 6, 2, 7, 8]
```

```
L2 = sorted(L1, reverse=True)
```

```
print(L1)
```

```
print(L2)
```



LIST SORTING (complex objects)

```
L1 = [  
    ('Bread', 10),  
    ('Butter', 20),  
    ('Chocolate dark', 15),  
    ('Chocolate white', 17),  
    ('Cakes', 19)  
]  
print(L1)  
L1.sort(reverse=True)  
print(L1)
```

>>help(list.sort)



LIST SORTING (complex objects)

```
L1 = [  
    ('Bread', 10),  
    ('Butter', 20),  
    ('Chocolate dark', 15),  
    ('Chocolate white', 17),  
    ('Cakes', 19)  
]  
  
def sort_product(item):  
    return item[1]  
  
L1.sort(key=sort_product)  
print(L1)
```



LAMBDA FUNCTION (EXPRESSION)

- ANONYMOUS ONE LINE FUNCTION → without a name
- We use it when function is called once e.g., as a parameter in another function
- Syntax: defining lambda function (expression)

lambda parameters:expression



LAMBDA FUNCTION (EXPRESSION)

```
L1 = [  
    ('Bread', 10),  
    ('Butter', 20),  
    ('Chocolate dark', 15),  
    ('Chocolate white', 17),  
    ('Cakes', 19)  
]
```

```
L1.sort(key=lambda item: item[1])  
print(L1)
```