Noter - Lesson-05-Python-Utilities-and-Modules

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Missing from last time

- file.close()
- Error handling
    - try/catch
    - with
- f.write
- sets
- Docstrings

Import

We already tried this with sys

```
1        import sys
```

You can also import your own modules.

```
1        import foo
```

You can import parts a module

```
1        from urllib.request import urlopen
```

Modules: ends on .py extension package: is a folder containing modules

2 types of import syntax

```
1        import sys
```

You import a module or a package

```
1        from urllib.request import urlopen
```

one.py

```
1    def greeting():
2    return 'Im a greeting from module one'
3
4    def main():
5        print(greeting())
6
7    if __name__ == "__main__":
8        main()
```

two.py

```
1    #import one
2
3    from one import greeting
4
5    print(greeting())
```

File System – os, os.path, shutil

- Standard library functions
- sys.exit terminates the program.
- os.mkdir, which creates directories
- os.rmdir, which removes empty directories
- os.chdir, which go to the given directory
- os.rename, which renames or moves files/directories
- os.remove, which deletes files
- os.chmod, which changes permissions on files/directories
- os.system, which submits jobs to the operating system

Exercise

- create files and folder get some input and write to file

module-subprocess

```
1    subprocess.run(["ls", "-l"])
```

Exceptions

- http://www.cbs.dtu.dk/courses/27610/lesson05.html

```
 1    while True:
 2        try:
 3            x = int(input("Please enter a number: "))
 4            break
 5        except ValueError:
 6            print("Oops!  That was no valid number.  Try again...")
 7
 8
 9    while True:
10        try:
11            filename = input('What file would you like to open?: ')
12            x = open(filename)
13            break
14        except Exception:
15            print("No such file or directory ...")
16            continue
17
18    break
```

HTTP – urllib and urlparse

urllib https://docs.python.org/3/library/urllib.html

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```
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You import a module or a package

```
 1    from urllib.request import urlopen
```

You import a resource from another package or module

How to use it

```
 1    response = urlopen('https://google.com')
 2    html = response.read().decode('utf-8')
```

```
3
4        # print(html)
```