urlopen 함수 기초 사용법

[1]:

```python
import urllib.request as req
from urllib.error import URLError, HTTPError
```

[2]:

```python
# 다운로드 경로 및 파일명
path_list = ["c:\\MyExam\\test1.jpg", "c:\\MyExam\\index.html"]
```

[3]:

```python
# 다운로드 리소스 URL
target_url = ["http://post.phinf.naver.net/20160621_169/1466482468081
              "http://google.com"]
```

[4]:

```python
for i, url in enumerate(target_url):
    # 예외 처리
    try:
        # 웹 수신 정보 읽기
        response = req.urlopen(url)

        # 수신 내용
        contents = response.read()

        print('-----------------------------------------------')

        # 상태 정보 중간 출력
        print('Header Info-{} : {}'.format(i, response.info()))
        print('HTTP Status Code : {}'.format(response.getcode()))
        print()
        print('-----------------------------------------------')

        # 파일 쓰기
        with open(path_list[i], 'wb') as c:
            c.write(contents)

    # HTTP 에러 발생 시
    except HTTPError as e:
        print("Download failed.")
        print('HTTPError Code : ', e.code)

    # URL 에러 발생 시
    except URLError as e:
        print("Download failed.")
        print('URL Error Reason : ', e.reason)

    # 성공
    else:
        print()
        print("Download Succeed.")
```

```
————————————————————————————————————————————
Header Info-0 : Date: Fri, 13 Jan 2023 09:48:29 GMT
Accept-Ranges: bytes
Cache-Control: max-age=15552000
Content-Length: 797094
Content-Type: image/jpeg
Last-Modified: Fri, 13 Jan 2023 09:48:29 GMT
p3p: CP="ALL CURa ADMa DEVa TAIa OUR BUS IND PHY ONL UNI PUR FIN
COM NAV INT DEM CNT STA POL HEA PRE LOC OTC"
Age: 0
Expires: Wed, 12 Jul 2023 09:48:29 GMT
Connection: close


HTTP Status Code : 200


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Download Succeed.
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Header Info-1 : Date: Fri, 13 Jan 2023 09:48:30 GMT
Expires: -1
Cache-Control: private, max-age=0
Content-Type: text/html; charset=ISO-8859-1
Cross-Origin-Opener-Policy-Report-Only: same-origin-allow-popup
s; report-to="gws"
Report-To: {"group":"gws","max_age":2592000,"endpoints":[{"ur
l":"https://csp.withgoogle.com/csp/report-to/gws/other"}]}
P3P: CP="This is not a P3P policy! See g.co/p3phelp for more inf
o."
Server: gws
X-XSS-Protection: 0
X-Frame-Options: SAMEORIGIN
Set-Cookie: 1P_JAR=2023-01-13-09; expires=Sun, 12-Feb-2023 09:4
8:30 GMT; path=/; domain=.google.com; Secure
Set-Cookie: AEC=ARSKqsJzfJc_Go4r1DLiHGwx3fnJRDWXwQpXLpUfnosvbt2U
nZA5WhsKmw; expires=Wed, 12-Jul-2023 09:48:30 GMT; path=/; domai
n=.google.com; Secure; HttpOnly; SameSite=lax
Set-Cookie: NID=511=Qp7g1FP5Vrsx9zTvgjchgV2j1vlHmuBxPPTL2DH2qmpZ
-40qiMYxesp1BKVOjYFUBc86kYiMxSmFe_zdj-cAAWZtld4JSv80X2wPDnnqlcYb
D4UDaV2JKTmiPrX12ntFjVFNtmSQMXuWlwGenOEOr2TZ1T1lXFeOb2gCuUYlgKU;
expires=Sat, 15-Jul-2023 09:48:30 GMT; path=/; domain=.google.co
m; HttpOnly
Accept-Ranges: none
Vary: Accept-Encoding
Connection: close
Transfer-Encoding: chunked


HTTP Status Code : 200


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```

Download Succeed.

[ ]:

```
1
```