

base64

Base64编码是一种“防君子不防小人”的编码方式。广泛应用于MIME协议，作为电子邮件的传输编码，生成的编码可逆，后一两位可能有“=”，生成的编码都是ascii字符。

优点：速度快，ascii字符，肉眼不可理解

缺点：编码比较长，非常容易被破解，仅适用于加密非关键信息的场合

--base64.b64encode(s[,altchars])

altchars&s是bytes-like

altchars是长度为2的字符串用来替换/和+

FE:

```
>>> a = base64.b64encode(bytes(s, encoding='utf8'), altchars='*/'.encode('utf-8'))
```

```
>>> a = base64.b64encode(bytes(s, encoding='utf8'), altchars='*8/'.encode('utf-8'))
```

Traceback (most recent call last):

File "<pyshell#23>", line 1, in <module>

a = base64.b64encode(bytes(s, encoding='utf8'), altchars='*8/'.encode('utf-8'))

File "D:\编程\lib\base64.py", line 61, in b64encode

assert len(altchars) == 2, repr(altchars)

AssertionError: b'*8/'

--base64.b64decode(s[,altchars])

解码

FE:

```
>>> a = base64.b64encode(bytes(s, encoding='utf8'))
```

```
>>> a
```

```
b'5oiR5piv5LiA5Liq5a2X56ym5Liy'
```

```
>>> a.decode('utf8')
```

```
'5oiR5piv5LiA5Liq5a2X56ym5Liy'
```

```
>>> base64.b64decode(a)
```

```
b'\xe6\xe8\x91\xe6\x98\xaf\xe4\xb8\x80\xe4\xb8\xaa\xe5\xad\x97\xe7\xac\xa6\xe4\xb8\xb2'
```

```
>>> base64.b64decode(a).decode('utf8')
```

```
'我是一个字符串'
```

--base64.urlsafe_b64encode(s)

s是bytes-like

此方法中用-代替了+，用_代替了/，这样可以保证编码后的字符串放在url里可以正常访问

--base64.urlsafe_b64decode(s)

--base64.b32encode(s)

base32编码接口

--base64.b32decode(s, casefold=False, map01=None)

--base64.b16encode(s)

base16接口

--base64.b16decode(s, casefold=False)