

将 week05 clone 至本地

```
(base) 31776@localhost MINGW64 ~  
$ cd repo  
  
(base) 31776@localhost MINGW64 ~/repo  
$ ls -l  
total 12  
drwxr-xr-x 1 31776 197609 0  3月 29 02:53 myproject/  
drwxr-xr-x 1 31776 197609 0  3月 23 20:03 mywork/  
drwxr-xr-x 1 31776 197609 0  3月 29 00:31 prj1/  
drwxr-xr-x 1 31776 197609 0  3月 24 02:10 week02_8278/  
drwxr-xr-x 1 31776 197609 0  3月 30 07:11 week04/  
  
(base) 31776@localhost MINGW64 ~/repo  
$ git clone git@gitcode.com:KJM04/week05.git  
Cloning into 'week05'...  
remote: Enumerating objects: 5, done.  
remote: Counting objects: 100% (5/5), done.  
remote: Compressing objects: 100% (5/5), done.  
remote: Total 5 (delta 0), reused 5 (delta 0), pack-reused 0 (from 0)  
Receiving objects: 100% (5/5), 8.44 KiB | 2.81 MiB/s, done.
```

在 week05 中创建环境

```
(base) 31776@localhost MINGW64 ~/repo  
$ cat week04/environment.yml  
name: week04  
channels:  
  - conda-forge  
dependencies:  
  - python=3.12  
  - wat-inspector  
(base) 31776@localhost MINGW64 ~/repo  
$ cp week04/environment.yml week05/  
  
(base) 31776@localhost MINGW64 ~/repo  
$ ls -l week05  
total 25  
-rw-r--r-- 1 31776 197609  91  4月  6 19:51 environment.yml  
-rw-r--r-- 1 31776 197609 18805 4月  6 19:48 LICENSE  
-rw-r--r-- 1 31776 197609  2239 4月  6 19:48 README.md  
-----  
(base) 31776@localhost MINGW64 ~/repo  
$ cp week04/environment.yml week05/  
  
(base) 31776@localhost MINGW64 ~/repo  
done  
#  
# To activate this environment, use  
#  
#     $ conda activate week05  
#  
# To deactivate an active environment, use  
#  
#     $ conda deactivate
```

str 字符串，各類用法檢驗

```
(base) 31776@msys64 MINGW64 ~/repo/week05 (main)
$ conda activate week05
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
hello
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2807820868784
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2299445599408
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2610774367408
2610774367408
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2328533735680
2328533733696
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2729318553856
2729318551872
[9, 5]
[2, 5]
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2552969828608
2552969826624
[9, 5]
[2, 5]
2552969828608
2552969826624
(week05)
31776@msys64 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
1942798342400
1942798340416
[9, 5]
[2, 5]
1942798342400
1942798340416
<class 'list'>
```

```

(week05)
31776@0000[00 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
1856604346624
1856604344640
[9, 5]
[2, 5]
1856604346624
1856604344640
<class 'list'>
isinstance(a, str): False
(week05)
31776@0000[00 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2105263134976
2105263132992
[9, 5]
[2, 5]
2105263134976
2105263132992
<class 'list'>
isinstance(a, str): False
dir(a) ['__add__', '__class__', '__class_getitem__', '__contains__', '__delattr__', '__delitem__', '__dir__', '__doc__',
'__eq__', '__format__', '__ge__', '__getattr__', '__getitem__', '__getstate__', '__gt__', '__hash__', '__iadd__',
'__imul__', '__init__', '__init_subclass__', '__iter__', '__le__', '__len__', '__lt__', '__mul__', '__ne__', '__new__',
'__reduce__', '__reduce_ex__', '__repr__', '__reversed__', '__rmul__', '__setattr__', '__setitem__', '__sizeof__', '__st
r__', '__subclasshook__', 'append', 'clear', 'copy', 'count', 'extend', 'index', 'insert', 'pop', 'remove', 'reverse', '
sort']
(week05)
31776@0000[00 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2403690486016
2403690484032
[9, 5]
[2, 5]
2403690486016
2403690484032
<class 'list'>
isinstance(a, str): False
isinstance(a, list): True
True
dir(a) ['__add__', '__class__', '__class_getitem__', '__contains__', '__delattr__', '__delitem__', '__dir__', '__doc__',
'__eq__', '__format__', '__ge__', '__getattr__', '__getitem__', '__getstate__', '__gt__', '__hash__', '__iadd__',
'__imul__', '__init__', '__init_subclass__', '__iter__', '__le__', '__len__', '__lt__', '__mul__', '__ne__', '__new__',
'__reduce__', '__reduce_ex__', '__repr__', '__reversed__', '__rmul__', '__setattr__', '__setitem__', '__sizeof__', '__st
r__', '__subclasshook__', 'append', 'clear', 'copy', 'count', 'extend', 'index', 'insert', 'pop', 'remove', 'reverse', '
sort']
(week05)
31776@0000[00 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
1702576462080
1702576460096
[9, 5]
[2, 5]
1702576462080
1702576460096
<class 'list'>
isinstance(a, str): False
isinstance(a, list): True
False
dir(a) ['__add__', '__class__', '__class_getitem__', '__contains__', '__delattr__', '__delitem__', '__dir__', '__doc__',
'__eq__', '__format__', '__ge__', '__getattr__', '__getitem__', '__getstate__', '__gt__', '__hash__', '__iadd__',
'__imul__', '__init__', '__init_subclass__', '__iter__', '__le__', '__len__', '__lt__', '__mul__', '__ne__', '__new__',
'__reduce__', '__reduce_ex__', '__repr__', '__reversed__', '__rmul__', '__setattr__', '__setitem__', '__sizeof__', '__st
r__', '__subclasshook__', 'append', 'clear', 'copy', 'count', 'extend', 'index', 'insert', 'pop', 'remove', 'reverse', '
sort']
(week05)
31776@0000[00 MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2204374276352
2204374274368
[9, 5]
[2, 5]
2204374276352
2204374274368
<class 'list'>
isinstance(a, str): False
isinstance(a, list): True
False
Traceback (most recent call last):
  File "C:\Users\31776\repo\week05\use_of_str.py", line 16, in <module>
    assert isinstance(a, str)
           ^^^^^^^^^^^^^^^^^
AssertionError

```

```

(week05)
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2422866516224
2422866514240
[9, 5]
[2, 5]
2422866516224
2422866514240
<class 'list'>
isinstance(a, str): False
isinstance(a, list): True
False
goodbye

(base) 31776@MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2469331212544
2469331210560
[9, 5]
[2, 5]
2469331212544
2469331210560
<class 'list'>
isinstance(a, str): False
isinstance(a, list): True
False
type error
goodbye

(base) 31776@MINGW64 ~/repo/week05 (main)
$ python use_of_str.py
2254361139456
2254361137472
[9, 5]
[2, 5]
2254361139456
2254361137472
<class 'list'>
isinstance(a, str): False
isinstance(a, list): True
False
> c:\users\31776\repo\week05\use_of_str.py(20)<module>()
-> print("type error")
(Pdb)

```

vs code 所示代碼

use\_of\_str.py > ...

```
1  a = [2, 5]
2  b = [2, 5]
3  x = id(a)
4  print(x)
5  y = id(b)
6  print(y)
7  a[0] = 9
8  print(a)
9  print(b)
10 print(id(a))
11 print(id(b))
12 print(type(a))
13 print("isinstance(a, str): ", isinstance(a, str))
14 print("isinstance(a, list):", isinstance(a, list))
15 print(isinstance(a, (str, float)))
16 try:
17     | assert isinstance(a, str)
18 except AssertionError:
19     | breakpoint()
20     | print("type error")
21 print("goodbye")
22
```

(base) 31776@ubuntu MINGW64 ~/repo/week05 (main)

\$ python str2.py

字面值

university

True

f\_string

name:Tom

TAB cue b

(base) 31776@ubuntu MINGW64 ~/repo/week05 (main)

\$ python str2.py

字面值

university

True

f\_string

name:Tom

TAB cue b

New Line cue

b



```
(base) 31776@localhost MINGW64 ~/repo/week05 (main)
```

```
$ python str2.py
```

```
字面值
```

```
university
```

```
True
```

```
f_string
```

```
name:Tom
```

```
TAB cue b
```

```
New Line cue
```

```
b
```

```
ccc
```

```
uuu
```

```
eee
```

```
bbb
```

```
(base) 31776@localhost MINGW64 ~/repo/week05 (main)
```

```
$ python str2.py
```

```
字面值
```

```
university
```

```
True
```

```
f_string
```

```
name:Tom
```

```
TAB cue b
```

```
New Line cue
```

```
b
```

```
ccc
```

```
uuu
```

```
eee
```

```
bbb
```

```
初始化
```

```
[5, 8, 2]
```

```
=====
```



```

(week05)
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_bytes.py
b'hello'
104
93184
110
--Return--
> c:\users\31776\repo\week05\use_of_bytes.py(15)<module>()->None
-> breakpoint()
(Pdb)

```

## encode decode

```

(week05)
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_bytes.py
b'hello'
104
93184
110
--Return--
> c:\users\31776\repo\week05\use_of_bytes.py(24)<module>()->None
-> breakpoint()
(Pdb) p b
b'\xe4\xbd\xa0\xe5\xa5\xbd'
(Pdb) p s
'你好'
(Pdb)

```

## use of inter

```

(week05)
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_int.py
<class 'AssertionError'>
--Return--
> c:\users\31776\repo\week05\use_of_int.py(19)<module>()->None
-> breakpoint()
(Pdb) p x.to_byter(2)
*** AttributeError: 'int' object has no attribute 'to_byter'. Did you mean: 'to_bytes'?
(Pdb) p x.tobytes(2)
*** AttributeError: 'int' object has no attribute 'tobytes'. Did you mean: 'to_bytes'?
(Pdb) yes
*** NameError: name 'yes' is not defined
(Pdb) p x.to_bytes(2)
b'\xff\xfe'
(Pdb)

```

## use of float

```

(week05)
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_float.py
<class 'float'>
<class 'float'>
0.6706323283969297
nan
False
False
False
314000.0
0.0314
True
False
True
-inf

```



use of bool

```
(week05)
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_bool.py
True False
<class 'bool'>
True
```

use of list

```
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_list.py
[1, 5, 'abc']
1
5
abc
list index out of range
abc
b
[2, 5, 'a', 'c']
['a', 'c', 2, 5]
False
unsupported operand type(s) for -: 'list' and 'list'
[2, 5, 2, 5, 2, 5]
b=[2, 5, 2, 5, 2, 5]
[9, 5]
[2, 5, 2, 5, 2, 5]
b=[[2, 5], [2, 5], [2, 5]]
[9, 5]
[[9, 5], [9, 5], [9, 5]]
[4, 25, 9]
[4, 9]
b=[[2, 5], [2, 5], [2, 5]]
None
[2, 5, 4]
[[2, 5, 4], [2, 5, 4], [2, 5, 4]]
--Return--
> c:\users\31776\repo\week05\use_of_list.py(59)<module>()->None
-> breakpoint()
```

use of dict

```
(week05)
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_dict.py
{'a': 1, 'bb': 5, 'cat': 3}
<class 'dict'>
a
bb
cat
1
5
3
1
5
3
[('a', 1), ('bb', 5), ('cat', 3)]
a 1
bb 5
cat 3
Traceback (most recent call last):
  File "C:\Users\31776\repo\week05\use_of_dict.py", line 20, in <module>
    assert {}
           ^^
AssertionError
```

```

(week05)
31776@00000000 MINGW64 ~/repo/week05 (main)
$ python use_of_dict.py
{'a': 1, 'bb': 5, 'cat': 3}
<class 'dict'>
a
bb
cat
1
5
3
1
5
3
[('a', 1), ('bb', 5), ('cat', 3)]
a 1
bb 5
cat 3

```

use of tuple

```

(week05)
31776@00000000 MINGW64 ~/repo/week05 (main)
$ python use_of_tuple.py
(1, 'a', 3.14)
<class 'tuple'>
1
a
3.14
'tuple' object does not support item assignment
unhashable type: 'list'
{'abc': 5, 7: 100, (3, 1): 21}
21
(3, 4, 0, 2)
<class 'tuple'>

```

use of set

```

(week05)
31776@00000000 MINGW64 ~/repo/week05 (main)
$ python use_of_set.py
{1, 4, 7}
<class 'set'>
unhashable type: 'list'
[1, 2, 1, 2, 5, 1]
{1, 2, 5}
{1, 2, 5}
True
False
{1, 2, 3, 5}
{2}
{1, 3, 5}

```

## use of path

```
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_path.py
.
True
C:\Users\31776\repo\week05
[WindowsPath('.git'),
 WindowsPath('.gitignore'),
 WindowsPath('environment.yml'),
 WindowsPath('LICENSE'),
 WindowsPath('README.md'),
 WindowsPath('str2.py'),
 WindowsPath('use_of_bool.py'),
 WindowsPath('use_of_bytes.py'),
 WindowsPath('use_of_dict.py'),
 WindowsPath('use_of_float.py'),
 WindowsPath('use_of_int.py'),
 WindowsPath('use_of_list.py'),
 WindowsPath('use_of_path.py'),
 WindowsPath('use_of_set.py'),
 WindowsPath('use_of_str.py'),
 WindowsPath('use_of_tuple.py')]
False
True
True
README.md
C:\Users\31776\repo\week05\README.md
--Return--
> c:\users\31776\repo\week05\use_of_path.py(21)<module>()->None
-> breakpoint()
(Pdb)
```

## use of datetime

```
(week05)
31776@MINGW64 ~/repo/week05 (main)
$ python use_of_datetime.py
211 days, 0:00:00
<class 'datetime.timedelta'>
211
2024-05-23 00:00:00
2024-12-04 00:00:00
--Return--
> c:\users\31776\repo\week05\use_of_datetime.py(16)<module>()->None
-> breakpoint()
(Pdb)
```

