

# Classes and Objects II

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# Process scorecard

- input: file, delimiter separated values
- comp name; start time; finish time

```
comp name 1; 12:00; 13:45  
comp name 2; 12:01; 13:27  
comp name 3; 12:02; 13:49
```

# top-level functionality

```
import competitors # import the main module  
  
clist = competitors.CompetitorsList() # create an empty list  
clist.read_scorecard("scorecard.dsv") # fill it from the source  
clist.sort_by('elapsed') # sort according to the elapsed time  
print(clist) # just print it somehow
```

# assert

`assert Expression[, Arguments]`

if Expression fails, Arguments used as arguments for  
AssertionError

```
assert h<=24 and h>=0, "hours: 0<=h<=24 but is: {}".format(h)
```

**reveal** what is expected

create an error message  
tell what happened

`raise AssertionError` # done by Python

# try, except, finally

```
1 try:  
2     # something that may fail  
3 except:  
4     # what to do if it really does  
5 else:  
6     # if try part does not fail  
7 finally:  
8     # always executed, cleaning ...
```

there can be multiple except-s

# sort competitors

scorecard.dsv

```
Master Yoda; 12:00; 13:45  
Han Solo; 12:01; 13:27  
Luke Skywalker; 12:02; 13:49
```

**Format**

**Sorting**

standard output (stdout)

```
[55] python3 process_scorecard.py  
name          start          finish  
Han Solo      12:01          13:27  
Master Yoda   12:00          13:45  
Luke Skywalker 12:02          13:49
```

```
elapsed  
01:26  
01:45  
01:47
```