

# Class activities Week 3 Part 1.

#1. Covert a string to a list of dictionaries (20 min)

# Activity #1 Part A (5 min)

- With a partner
- Assume that there is a string:

```
user_hobbies="""user1*Jack*Swimming
user2*John*Watching movies
user3*Jane*Painting
user4*Jake*Having nice dinner
user5*John*Watching movies"""
```

- Write a function that takes `user_hobbies` as a parameter, breaks it into 5 pieces (each starting with 'user') and prints each piece, one per line of output.

# Sample Code – Part A

```
user_hobbies="""user1*Jack*Swimming
user2*John*Watching movies
user3*Jane*Painting
user4*Jake*Having nice dinner
user5*John*Watching movies"""

def print_user_hobbies_list(user_hobbies):
    # break up the multi-line string to a list, one line per list element
    user_hobbies_lines = user_hobbies.split('\n')
    # for each item in the list, print it, with a line number
    i = 1
    for line in user_hobbies_lines:
        # print each line
        print "%d:"%(i),line
        i = i+1

print_user_hobbies_list(user_hobbies)
```

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# Explanation

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# Activity #1 – Part B (10 min)

- Modify your function from Activity #1 part a.
  - Instead of printing each line, convert each line to a dictionary and print the dictionary.
  - Each line has an 'id', 'name', and 'hobby' separated by the '\*' character
  - Convert each line of `val1*val2*val3` to a dictionary like:
    - `{ 'id': 'val1', 'name': 'val2', 'hobby': 'val3' }`

# Sample Code – Part B

```
user_hobbies="""user1*Jack*Swimming
user2*John*Watching movies
user3*Jane*Painting
user4*Jake*Having nice dinner
user5*John*Watching movies"""

def user_hobbies_dict(user_hobbies):
    # break up the multi-line string to a list, one line per list element
    user_hobbies_lines = user_hobbies.split('\n')
    # for each item in the list, print it, with a line number
    i = 1
    for line in user_hobbies_lines:
        # break each line into a list of individual field values
        fields = line.split('*')
        # allocate a new, empty dictionary
        hobby_dict = dict()
        # now assign each field value to a key in the dictionary
        hobby_dict['id'] = fields[0]
        hobby_dict['name'] = fields[1]
        hobby_dict['hobby'] = fields[2]
        # now print each dictionary
        print "%d:"%(i), hobby_dict
        i = i+1

user_hobbies_dict(user_hobbies)
```

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# Explanation

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Stop

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