

# Assignment 10, In-Class

CS161

*For the following exercises, create a file named `mytools.py`. You will write the functions necessary to solve each exercise in that file. You will then import it into each `problem_x.py` file to demonstrate it in action.*

1. In the `mytools` module, write a function, `create_random_tuple()`, that will create a tuple with between 10 and 20 (the size of the tuple is selected randomly when it is created) random integers in the range one to one hundred, inclusive and returns it to the caller. Write code in a file named `program_1.py` that tests `create_random_tuple`.

15 minutes.

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2. In the `mytools` module, write a function, `choose_random()`, that takes a tuple as an argument and returns a random element from it. Write code in a file named `program_2.py` that tests `choose_random`.

15 minutes.

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3. In the `mytools` module, write a function, `has_common_element()`, that takes two lists as arguments and returns `True` if the lists have at least one element in common. Import *only that function* into your code in a file named `program_3.py` that tests `has_common_element`.

15 minutes, save your program in a file named `program_3.py`

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4. In the `mytools` module, write a function, `filter_even()`, that takes a list as an argument and returns a new list containing the elements remaining from the first list after the even numbers have been removed. Import *only that function into your code and give it an alias* in a file named `program_4.py` that tests `filter_even` using a list with random numbers and words as elements.

15 minutes, save your program in a file named `program_3.py`

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