

# Web Engineering

Fall 2020

## Lab-04

Date: April 26, 2023.

**The objective of this lab is to**

1. Practice basic python programming concepts.
2. Utilize built-in python data structures like lists, tuples, and dictionaries.
3. Practice Database CRUD operations.
4. Practice DRY (don't repeat yourself) via functions.

### Instructions!

1. This is an individual lab, you are strictly NOT allowed to discuss your solutions with your fellow colleagues, even not allowed to ask how is he/she is doing, it may result to zero marks.
2. You can ONLY discuss this with TAs or Ma'am.
3. Save your work frequently. Make a habit of pressing CTRL+S after every line of code you write.
4. Follow proper coding conventions and put comments where needed.

**Write the following classes with the mentioned attributes.**

#### Medicine

- name :str
- company : Company
- formula :str
- price :float

#### Company

- name :str
- location :str
- owner :Person
- registration\_code :str

#### Person

- name :str
- contact :str
- city :str

**Also make table(s) in database so that you can store data and can perform the following operations.**

1. Add medicine data in database
2. Show the name and location of a company whose owner name is ---
3. Show name, formula and price of all medicines whose company whose name is ---
4. Show name, formula and price of a company whose price range is --- to ---
5. Delete all the medicines whose formula is ---  
(Remember, different companies make medicines of same formula)
6. Update the location of a company whose registration code is ---

**Some Important Points for making table(s)**

- contact\_no can identify a Person uniquely
- registration\_code can identify a company uniquely
- medicine name and company name compositely can identify a medicine uniquely
- Another approach to manage uniqueness in medicine is Make one extra attribute named id which will auto incremented by Database itself.
- Think yourself about where to raise exceptions. Also catch exceptions properly.
- Make proper driver to test your program.

# While (not succeed) Try();