

## Assignment 1 – Portfolio web resource

**You should present your work on 9<sup>th</sup> week on your classes. Late presentations will not be accepted.**

Before you start this assignment remember that cheating is not acceptable in any form.

### *Requirements:*

- 1. Read the tasks carefully, try to follow a description of tasks.*
- 2. Do not forget to comment your code and make a user friendly program. 😊*
- 3. Use .py extension to upload your file(s) to moodle.astanait.edu.kz, **please upload up to 4 files only.***

**Tasks (static for all the coming labs, outputs must be readable and beautiful)**

Please, create sensible class and variable names and follow the naming conventions. For any output use a string formatting. e.g. `f"... ", "... ".format(...)`, `"...% " % (...)`.

Use try-except to deal with errors and avoid program crush.

### **Requirements**

- Create a web application using Flask web framework
  - Your flask application must have at least 5 functions (views) and 5 corresponding urls
  - As it is said above, you should bind at least 5 web pages to those views (render pages).
  - Use Jinja template language. Design of a web app is up to your preference.
- Use SQLAlchemy ORM to interact with database.
  - Database should consist at least 2 models. User and his works (portfolio data)
  - As portfolio data you can use:
    - Your CV, your previous projects (literally anything)
  - DBMS can be any of these 3: SQLite, PostgreSQL or MySQL.
    - Choose the most suitable for you.
- Use FastAPI rest framework to create a RESTful API to make CRUD operations and simply to pull data from database.
  - You need to restrict your API depending on whether user is authorized or not.
  - If user is not authorized, then your API should provide only safe HTTP methods.