Syllabus: Basic Python Programming (version 3)

Team Name: ITinerary
Organization: University of Ghana

Contact
Eunseong Park: dmstjd517@unist.ac.kr
Jongmin Choi: jm990621@unist.ac.kr
Dohun Kim: dohun1607@unist.ac.kr

Course Objectives & Description

Today, programming is used in many fields and becomes a fundamental tool for those who live in the information society with 4th IR. In this short time, you will get the motivation and learn about several basic skills for programming. Our basic programming course will introduce students to the followings:

- Fundamental concepts and overall procedure of programming
- Logical flow and theoretical background of given functions, modules, and programs
- Useful tools / libraries in Python and its application

Class

We adopted flipped learning - consists of pre-class, in-class and post-class, due to the limited period of class. Although pre-class and post-class is not mandatory, it will help the learning very much.

- Pre-class: In advance, we will provide some material for the pre-class. You can learn fundamental concepts for each topic.
- Real-time class: We meet on Zoom everyday during the course. After reviewing, we will have some interesting mini project (lab session) for programming exercise.
- Post-class: We will post the recordings of the class and some additional course materials, for reviewing.

The material is / will be posted to our GitHub Page (https://eunseong-park.github.io/itinerary)

Support

For beginners, we provide the followings:

- Assistance in lab session
- Some code snippets / different version of skeleton code
- Remote support (if needed)
- Q&A session

Tentative Curriculum & Schedule

Session*	Contents
Session 1 Python Basics	+ Basic concepts of programming and Python + Setting environment and "hello, world!" + Using functions, classes, and libraries + Simple programming exercise and mini project
Session 2 Network Programming	+ Theoretical background of networking + Socket programming in Python + Mini project: Chat app
Session 3 OpenCV	+ Intro. to computer vision + Image processing + Mini project: Video conferencing / Camera app / Facial recognition
Session 4 Pygame	+ Intro. to Pygame + Case study + Mini project: Paint tool, Game making

Su	Mo	Tu	We	Th	Fr	Sa
					~11/27	11/28
					Preparation	Pre-class Session 1
11/29	11/30	12/1	12/2	12/3	12/4	12/5
	Pre-class Session 2		Pre-class Session 3	Pre-class Session 4		
12/6	12/7	12/8	12/9	12/10	12/11	12/12
	-	Real-time Session 1	Real-time Session 2	Real-time Session 3	Real-time Session 4	