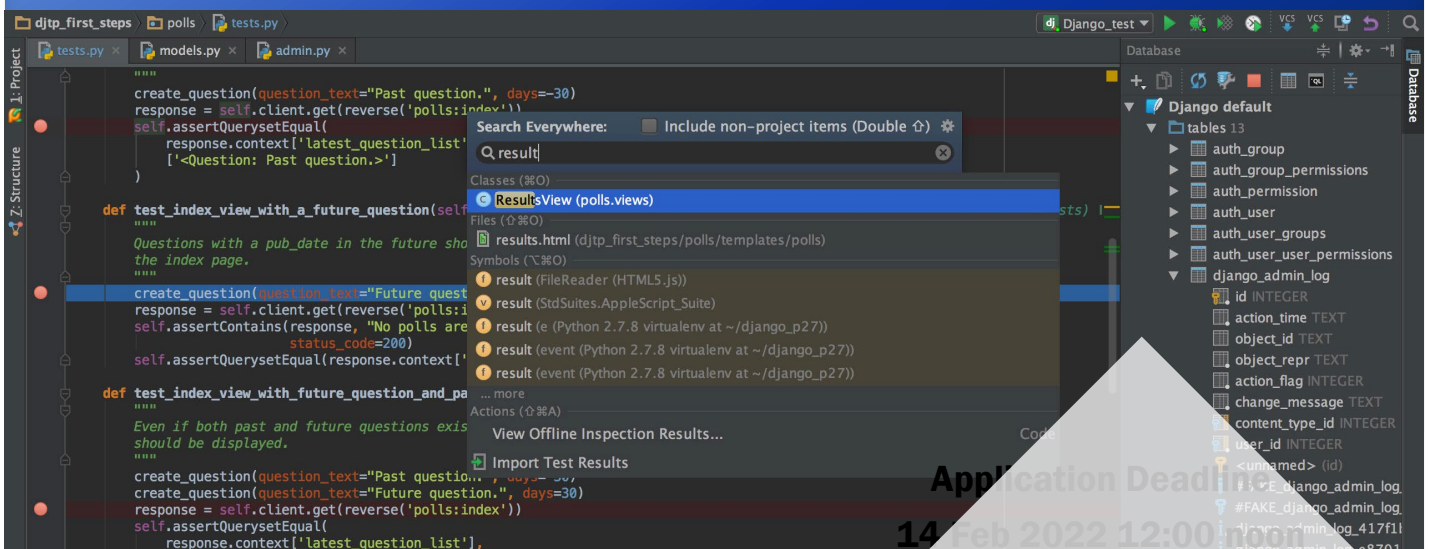




# Coding Course (Level III): Python Programming for Gaming and AI Applications

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**Application Deadline**

**4 Jul 2022**

**12:00 noon**

## **Intended Learning Outcomes**

Upon completion of the programme, participants should be able to:

1. explain the basics of object-oriented programming;
2. create a game program with a graphical user interface using Python;
3. apply the technique of reinforcement learning to create an intelligent computer player;
4. apply logistical thinking and creativity in game design.



## ◆ Introduction

Python is the top programming language in TIOBE and PYPL Index. It is widely used in data science and machine learning applications. In this course, we aim at teaching the essentials of Python programming language and applying the language in basic gaming applications. We will also cover how to develop intelligent agents which act as computer players based on the concept of reinforcement learning. This course will start from the fundamentals and is suitable for students who do not have any programming background.

This programme is under the collaboration with Department of Computer Science and Engineering, The Chinese University of Hong Kong.

## ◆ Schedule

| Session | Date   | Time                   | Venue   |
|---------|--------|------------------------|---|
| 1       | 16 Jul | 9:30 a.m. – 12:30 p.m. | Room 123, 1/F, Ho Sin Hang Engineering Building, The Chinese University of Hong Kong<br>( <a href="#">MAP</a> ) |
| 2       | 23 Jul |                        |   |
| 3       | 30 Jul |                        |   |
| 4       | 6 Aug  |                        |   |
| 5       | 16 Aug | 2:30 p.m. – 5:30 p.m.  |   |
| 6       | 18 Aug |                        |   |

## ◆ Target Participants

- S3 – S6 HKAGE student members only in 2021/22 school year
- Class size: 38
- \* First-come, first-served

## ◆ Pre-requisite

- No special prerequisites are needed

## ◆ Medium of Instruction

English with English Handouts

## ◆ Certificate

E-Certificate will be awarded to participants who have:

- attended at least 5 sessions; and
- completed all the assignments with satisfactory performance