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# 파이썬 설치

1주차\_02

한 동 대 학 교  
김경미 교수

# Python.org

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- <http://www.python.org>

The screenshot shows the Python.org website homepage. At the top, there is a navigation bar with links for Python, PSF, Docs, PyPI, Jobs, and Community. Below this is the Python logo and a search bar with a 'GO' button, alongside 'Socialize' and 'Sign In' links. A secondary navigation bar contains links for About, Downloads, Documentation, Community, Success Stories, News, and Events. The main content area features a code snippet on the left, a yellow terminal icon, and an article titled 'All the Flow You'd Expect' on the right. The article text discusses Python's control flow statements and includes a link to 'More control flow tools in Python 3'. At the bottom of the article are five numbered buttons (1-5). Below the article is a footer with the text: 'Python is a programming language that lets you work quickly and integrate systems more effectively. >>> [Learn More](#)'.

```
# For loop on a list
>>> numbers = [2, 4, 6, 8]
>>> product = 1
>>> for number in numbers:
...     product = product * number
...
>>> print('The product is:', product)
The product is: 384
```

### All the Flow You'd Expect

Python knows the usual control flow statements that other languages speak — `if`, `for`, `while` and `range` — with some of its own twists, of course. [More control flow tools in Python 3](#)

1 2 3 4 5

Python is a programming language that lets you work quickly and integrate systems more effectively. >>> [Learn More](#)

# Python.org 제공 자료

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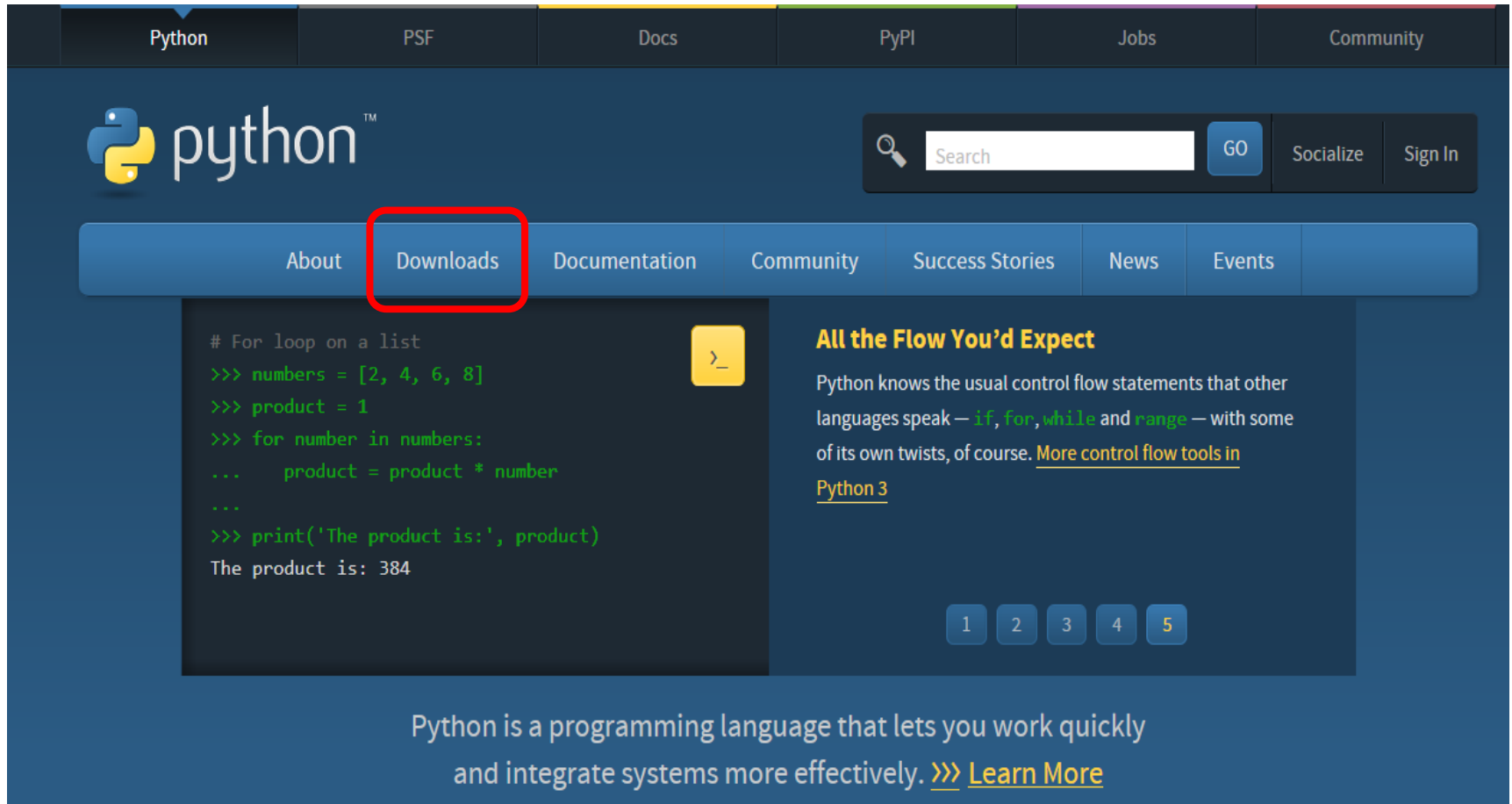
- Downloads, 설치 파일
- Documentation, 튜토리얼과 reference

The screenshot displays a grid of resource categories on the Python.org website. The categories are arranged in two rows. The first row includes 'Beginner', 'Moderate', 'Advanced', and 'General'. The second row includes 'Python 3.x Resources' and 'Python 2.x Resources'. Each category has a list of sub-resources.

<b>Beginner</b> <ul style="list-style-type: none"><li>▪ Beginner's Guide</li><li>▪ Python 2 or 3?</li><li>▪ Python FAQs</li></ul>	<b>Moderate</b> <ul style="list-style-type: none"><li>▪ Python Periodicals</li><li>▪ Python Books</li></ul>	<b>Advanced</b> <ul style="list-style-type: none"><li>▪ Python Packaging User Guide</li><li>▪ In-development Docs</li><li>▪ Guido's Essays</li></ul>	<b>General</b> <ul style="list-style-type: none"><li>▪ PEP Index</li><li>▪ Python Videos</li><li>▪ Developer's Guide</li></ul>
<b>Python 3.x Resources</b> <ul style="list-style-type: none"><li>▪ Browse Python 3.6.1 Documentation - (Module Index)<ul style="list-style-type: none"><li>▪ What's new in Python 3.6</li></ul></li></ul>		<b>Python 2.x Resources</b> <ul style="list-style-type: none"><li>▪ Browse Python 2.7.13 Documentation - (Module Index)<ul style="list-style-type: none"><li>▪ What's new in Python 2.7</li></ul></li></ul>	

- **Community**
  - FAQ, attend conference, email newsletter(weekly)
- **Events, 파이썬 관련 오프라인 모임 정보**

# Windows, 설치 과정(1/7)



The image shows the Python.org website interface. At the top, there is a navigation bar with links for Python, PSF, Docs, PyPI, Jobs, and Community. Below this is the Python logo and a search bar with a 'GO' button. A secondary navigation bar contains links for About, Downloads, Documentation, Community, Success Stories, News, and Events. The 'Downloads' link is highlighted with a red rectangular box. Below the navigation bar, there is a code snippet on the left and an article preview on the right. The code snippet shows a Python program that calculates the product of numbers in a list. The article preview is titled 'All the Flow You'd Expect' and discusses control flow statements in Python. At the bottom of the page, there is a footer with the text: 'Python is a programming language that lets you work quickly and integrate systems more effectively. >>> [Learn More](#)'.

Python

PSF

Docs

PyPI

Jobs

Community

python™

Search

GO

Socialize

Sign In

About

Downloads

Documentation

Community

Success Stories

News

Events

```
# For loop on a list
>>> numbers = [2, 4, 6, 8]
>>> product = 1
>>> for number in numbers:
...     product = product * number
...
>>> print('The product is:', product)
The product is: 384
```

**All the Flow You'd Expect**

Python knows the usual control flow statements that other languages speak — `if`, `for`, `while` and `range` — with some of its own twists, of course. [More control flow tools in Python 3](#)

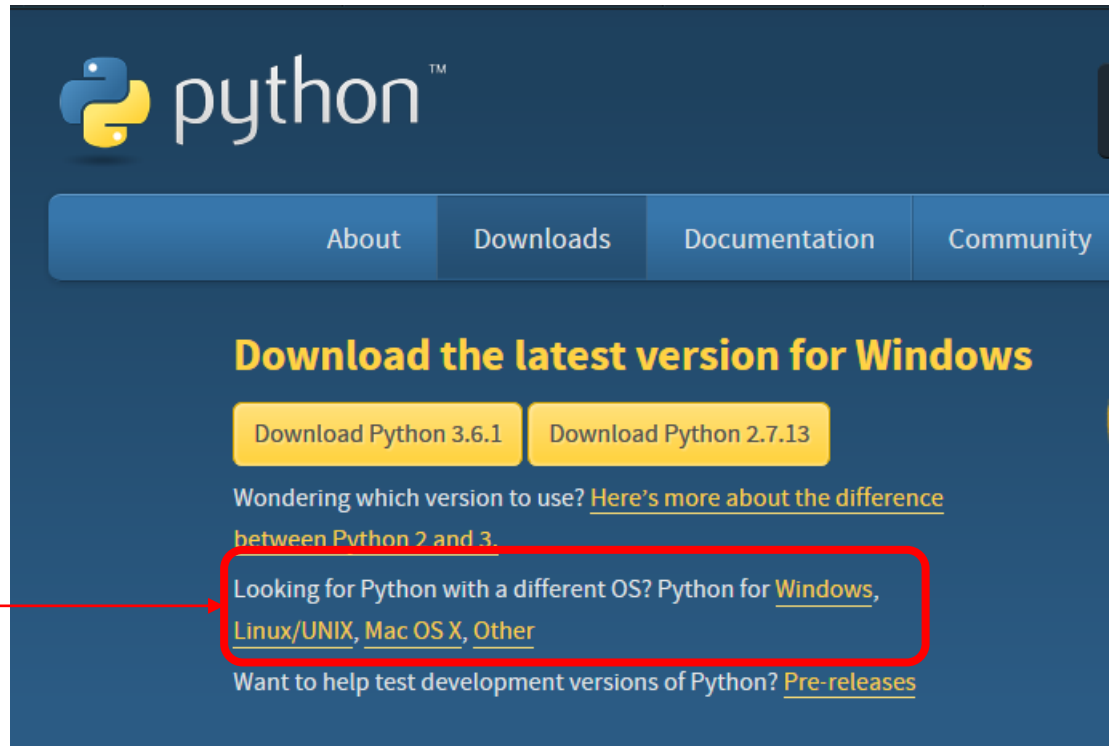
1 2 3 4 5

Python is a programming language that lets you work quickly and integrate systems more effectively. >>> [Learn More](#)

# Windows, 설치 과정 (2/7)

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Windows  
64bit 용이나  
다른 OS용  
설치  
원하는 OS를  
선택



The screenshot shows the Python website's download page for Windows. The page features the Python logo at the top left, followed by navigation links for 'About', 'Downloads', 'Documentation', and 'Community'. The main heading is 'Download the latest version for Windows'. Below this, there are two yellow buttons: 'Download Python 3.6.1' and 'Download Python 2.7.13'. A red box highlights the text 'Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [Mac OS X](#), [Other](#)'. A red line points from the Korean text on the left to this highlighted area.

python™

About Downloads Documentation Community

**Download the latest version for Windows**

Download Python 3.6.1 Download Python 2.7.13

Wondering which version to use? [Here's more about the difference between Python 2 and 3.](#)

Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [Mac OS X](#), [Other](#)

Want to help test development versions of Python? [Pre-releases](#)

# Windows, 설치 과정 (3/7)

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- Windows 64비트용

- [Python 3.4.2 - 2014-10-13](#)
  - Download [Windows x86 MSI installer](#)
  - [Download Windows x86-64 MSI installer](#)
  - Download [Windows help file](#)
  - Download [Windows debug information files for 64-bit binaries](#)
  - Download [Windows debug information files](#)

# Windows, 설치 과정 (4/7)

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## Python Releases for Windows

- [Latest Python 2 Release - Python 2.7.13](#)
- [Latest Python 3 Release - Python 3.6.1](#)
- [Python 3.6.1 - 2017-03-21](#)
  - Download [Windows x86 web-based installer](#)
  - Download [Windows x86 executable installer](#)
  - Download [Windows x86 embeddable zip file](#)
  - Download [Windows x86-64 web-based installer](#)
  - Download [Windows x86-64 executable installer](#)
  - Download [Windows x86-64 embeddable zip file](#)
  - Download [Windows help file](#)

python.org의 python-3.6.1-amd64-webinstall.exe(1.25MB)을(를) 실행하거나 저장하시겠습니까?

실행(R)

저장(S) ▼

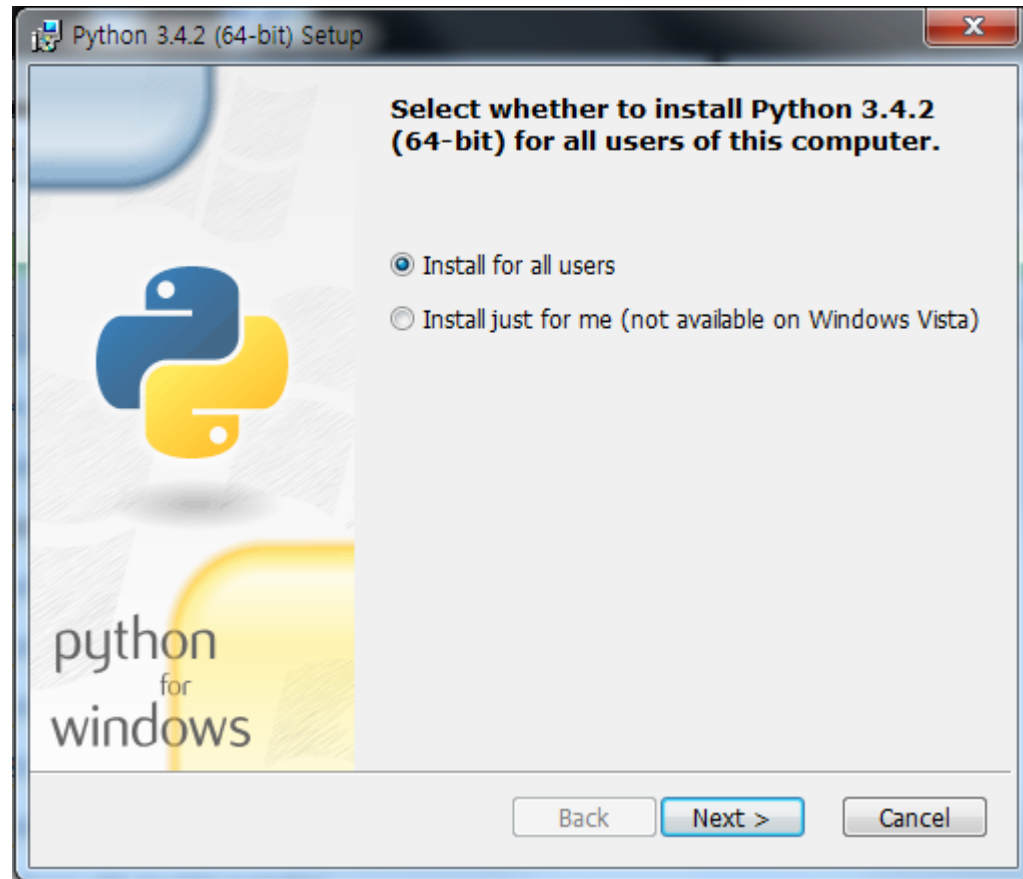
취소(C)

×

# Windows, 설치 과정 (5/7)

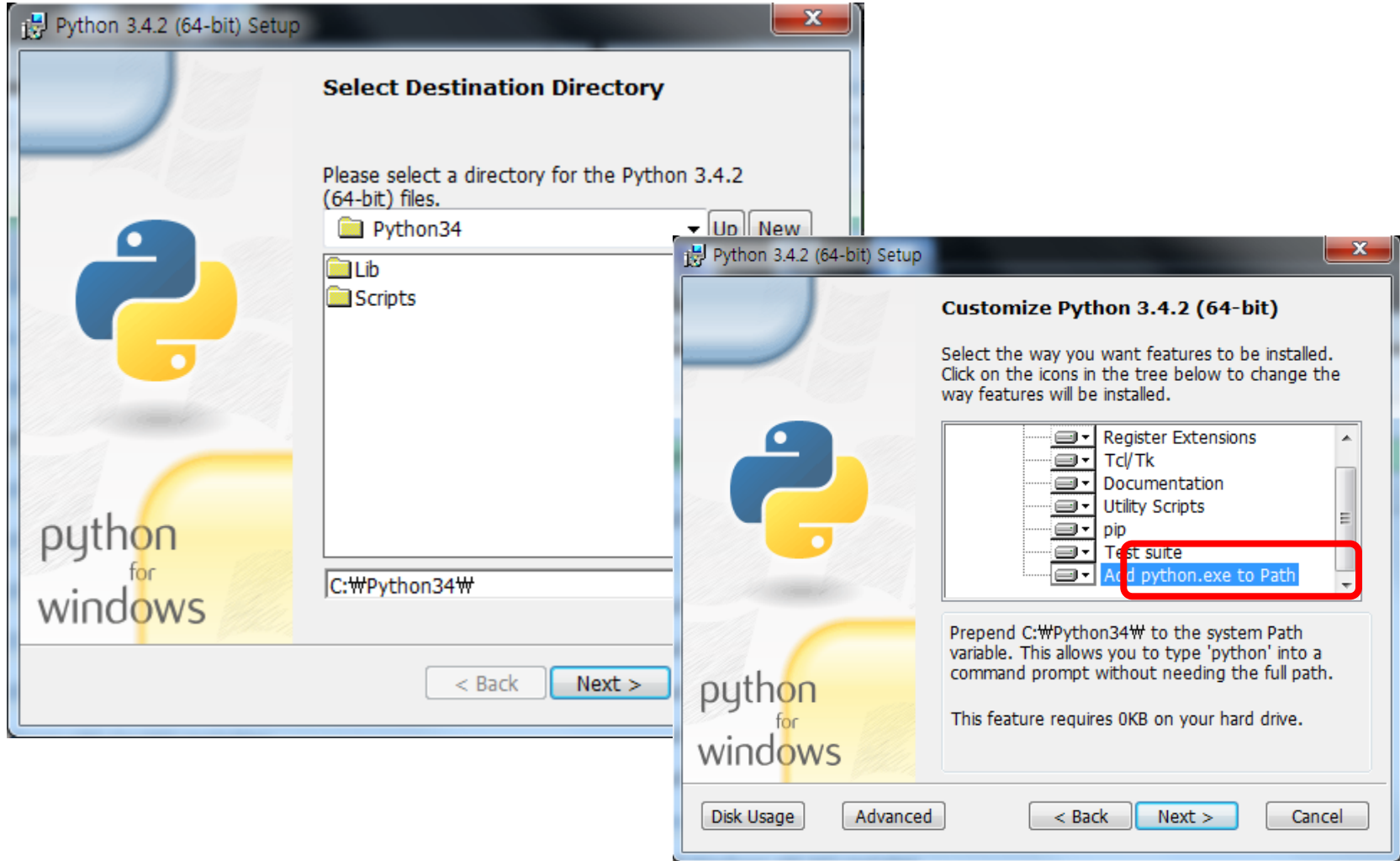
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## 1. Install for all users 클릭하면 설치 시작

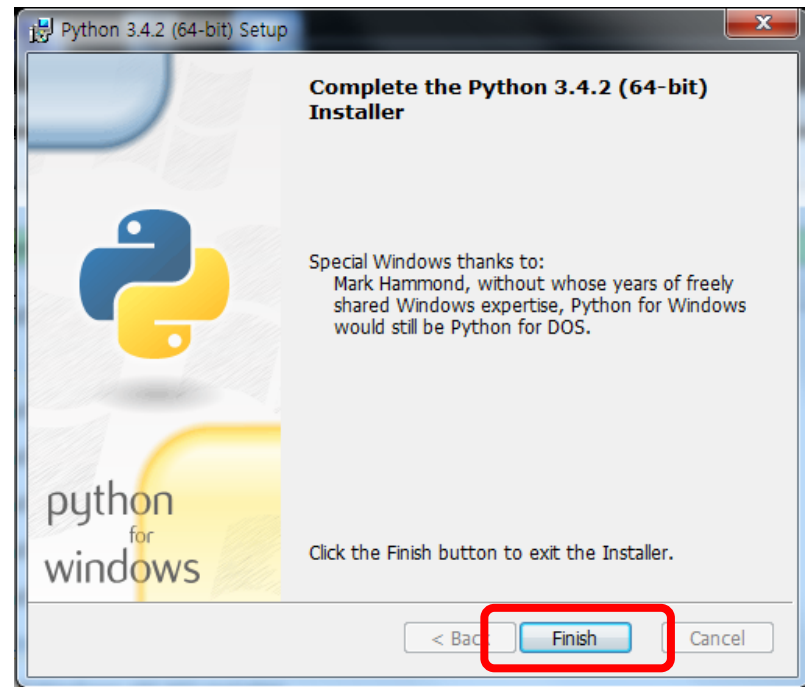
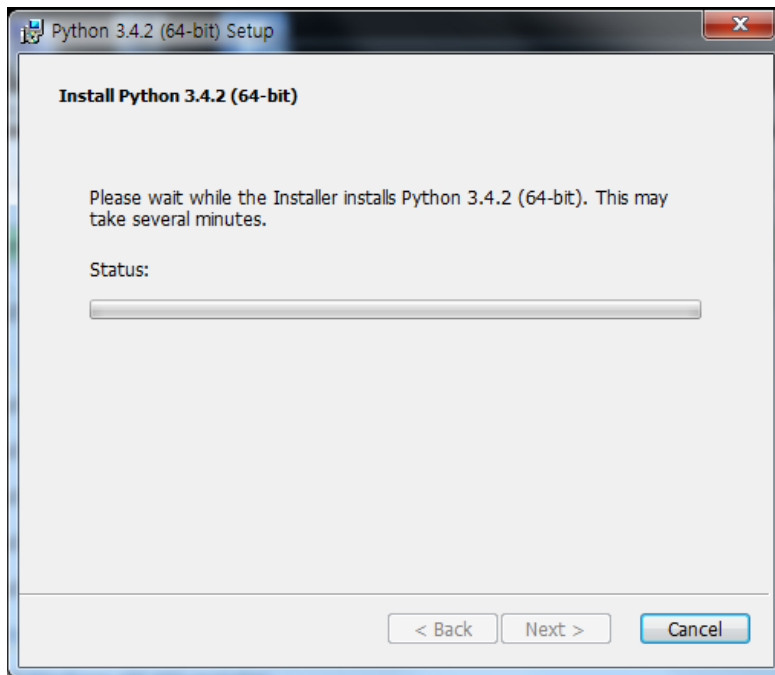




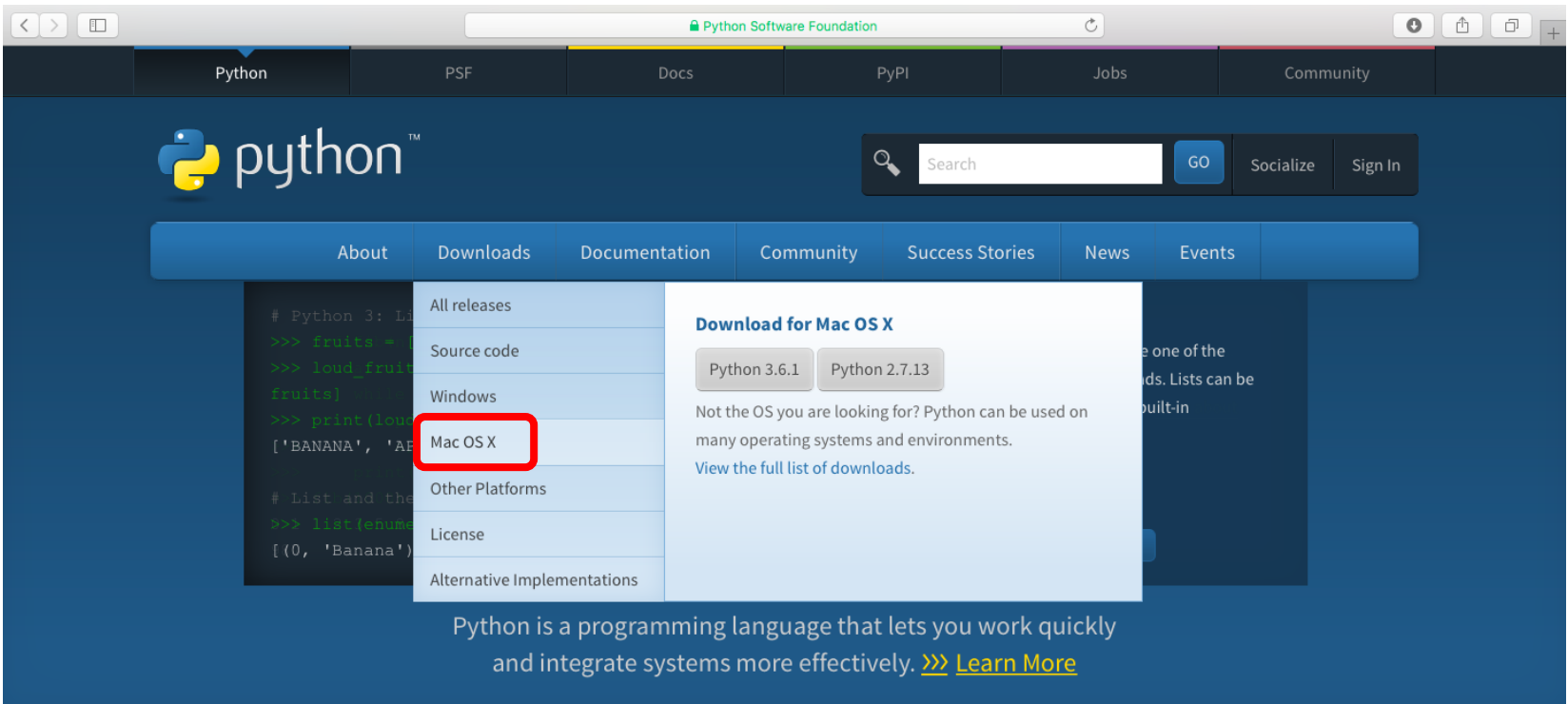
# Windows, 설치 과정 (6/7)



# Windows, 설치 과정 (7/7)



# Mac OS, 설치 과정 (1/7)



The screenshot shows the Python Software Foundation website. The navigation bar includes links for Python, PSF, Docs, PyPI, Jobs, and Community. The main content area features the Python logo, a search bar, and a menu with options like About, Downloads, Documentation, Community, Success Stories, News, and Events. The 'Downloads' menu is open, and 'Mac OS X' is highlighted with a red box. A modal window titled 'Download for Mac OS X' is displayed, showing buttons for 'Python 3.6.1' and 'Python 2.7.13'. Below the buttons, text states: 'Not the OS you are looking for? Python can be used on many operating systems and environments. View the full list of downloads.'

```
# Python 3: List and the items in the list
>>> fruits = ['apple', 'banana', 'orange', 'peach']
>>> loud_fruits = [fruit.upper() for fruit in fruits]
>>> print(loud_fruits)
['BANANA', 'APPLE', 'ORANGE', 'PEACH']

# List and the items in the list
>>> list(enumerate(loud_fruits))
[(0, 'Banana'), (1, 'Apple'), (2, 'Orange'), (3, 'Peach')]
```

Python is a programming language that lets you work quickly and integrate systems more effectively. >>> [Learn More](#)

## Get Started

Whether you're new to programming or an experienced developer, it's easy to learn and use Python.

[Start with our Beginner's Guide](#)

## Download

Python source code and installers are available for download for all versions! Not sure which version to use? [Check here](#).

Latest: Python 3.6.1 - Python 2.7.13

## Docs

Documentation for Python's standard library, along with tutorials and guides, are available online.

[docs.python.org](https://docs.python.org)

## Jobs

Looking for work or have a Python related position that you're trying to hire for? Our **relaunched community-run job board** is the place to go.

[jobs.python.org](https://jobs.python.org)

# Mac OS, 설치 과정 (2/7)

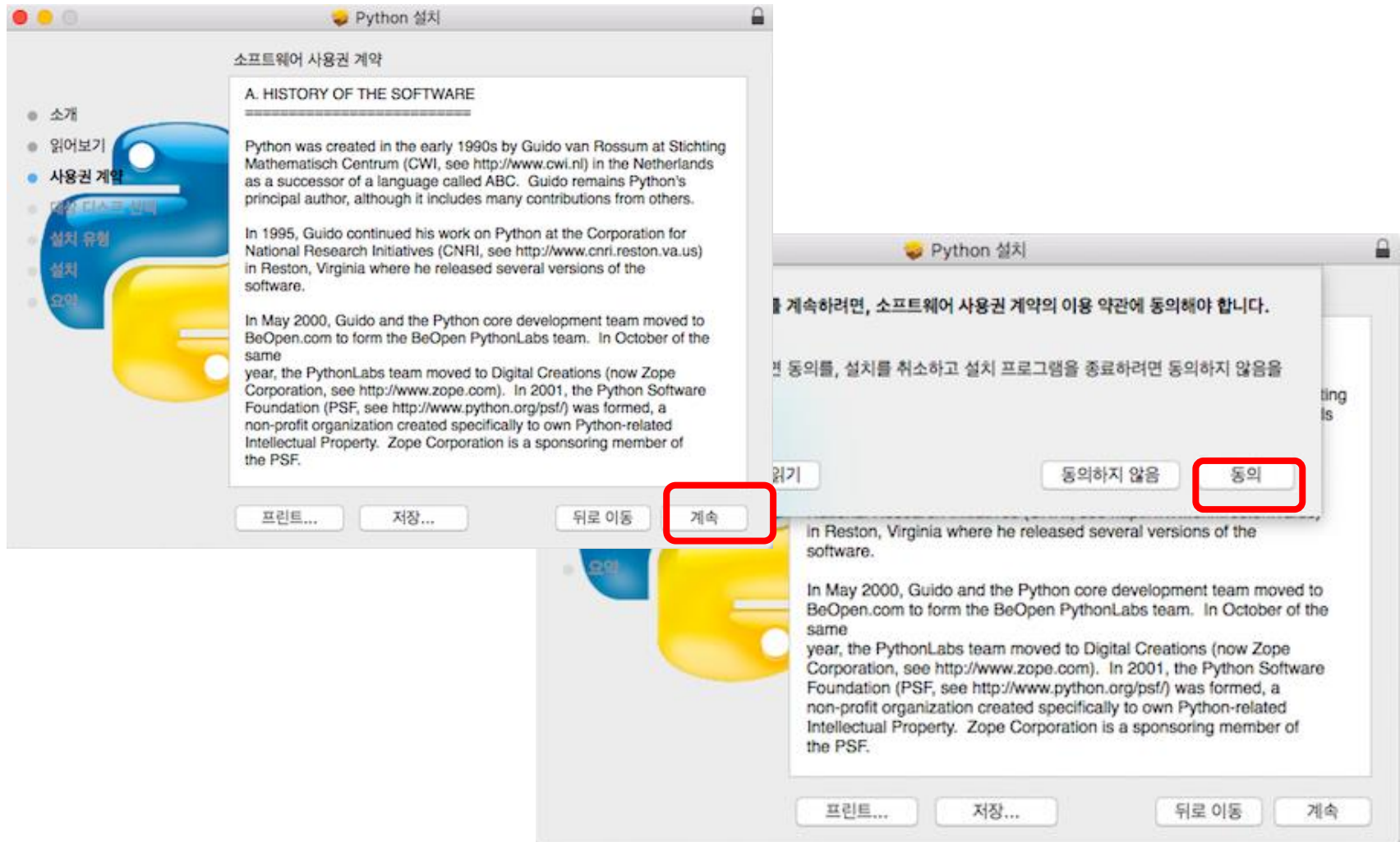


- 원하는 버전을 찾아 설치 가능
- Python 3.4.2
- Download Mac Os X 64-bit/32-bit installer 클릭
- 저장 후 실행

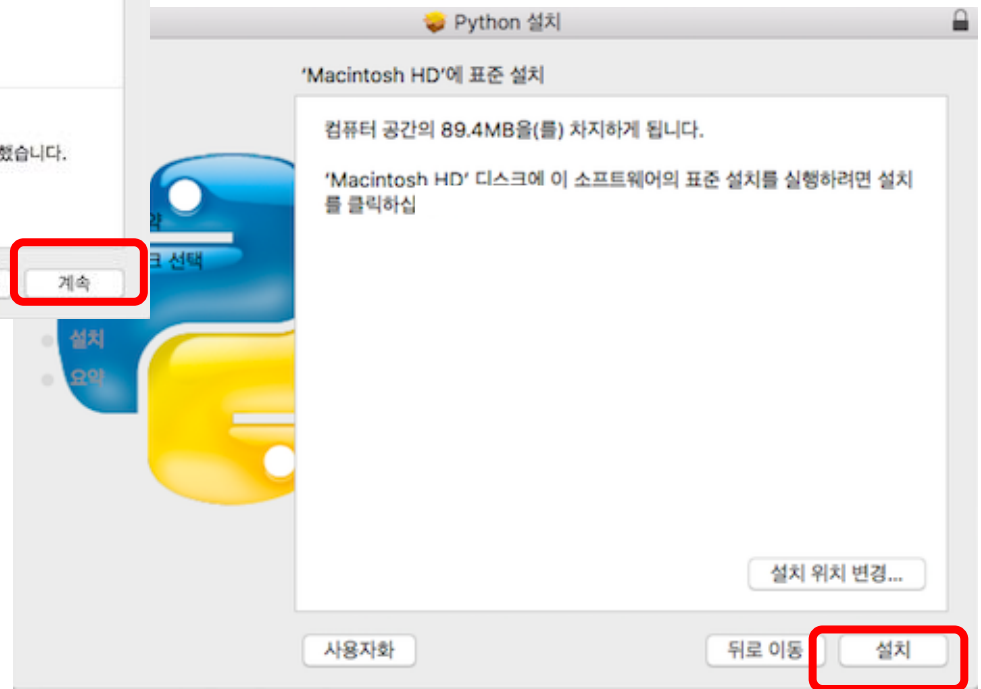
# Mac OS, 설치 과정 (3/7)



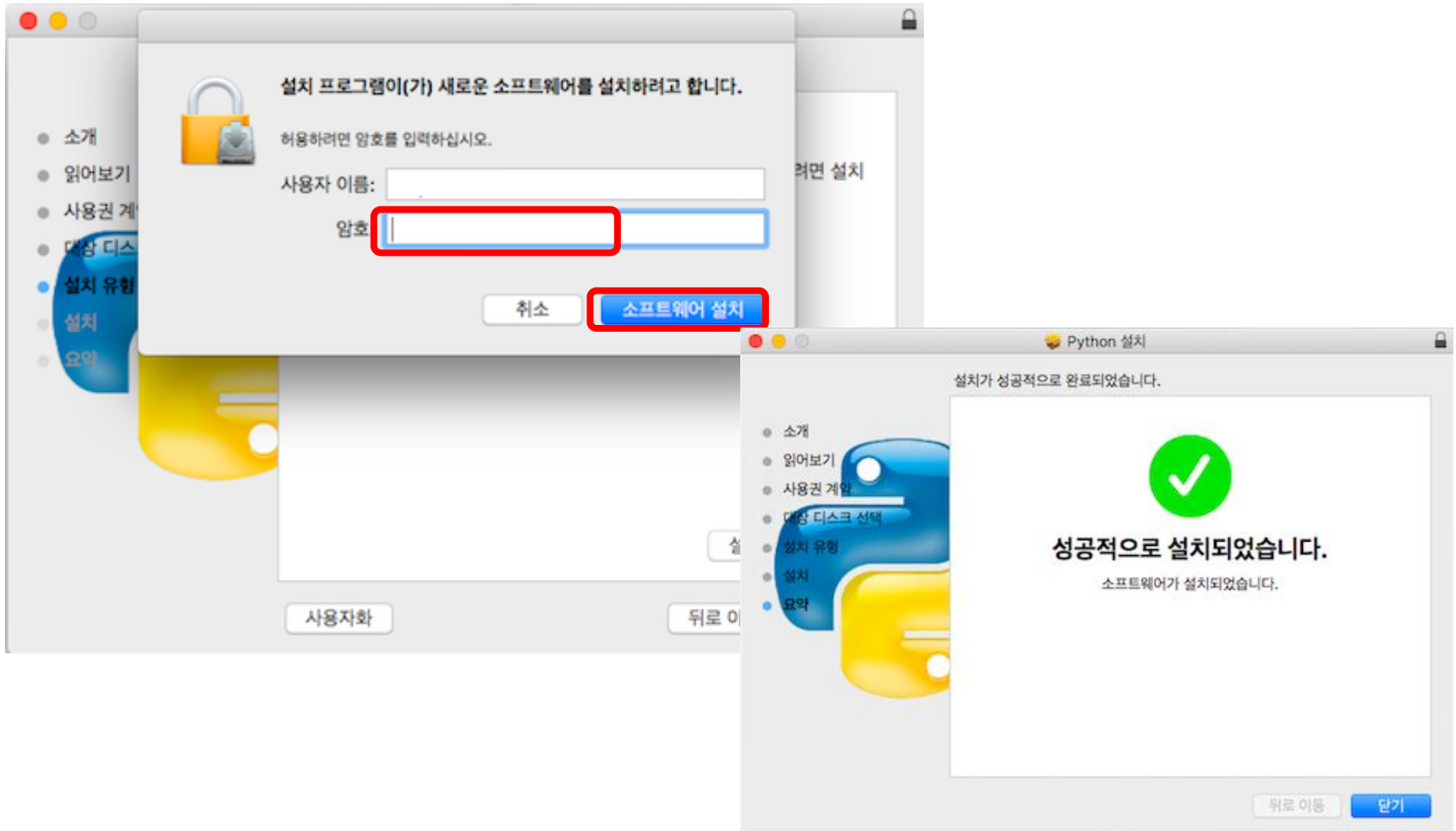
# Mac OS, 설치 과정 (4/7)



# Mac OS, 설치 과정 (5/7)



# Mac OS, 설치 과정 (6/7)

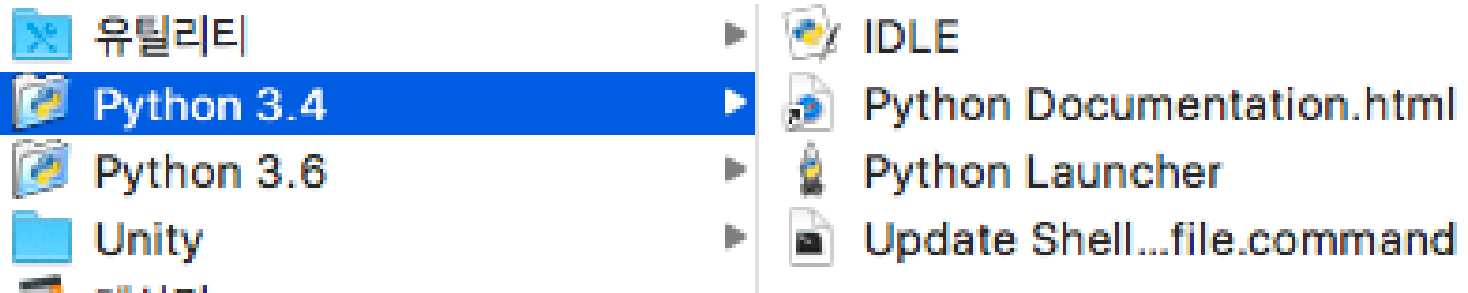




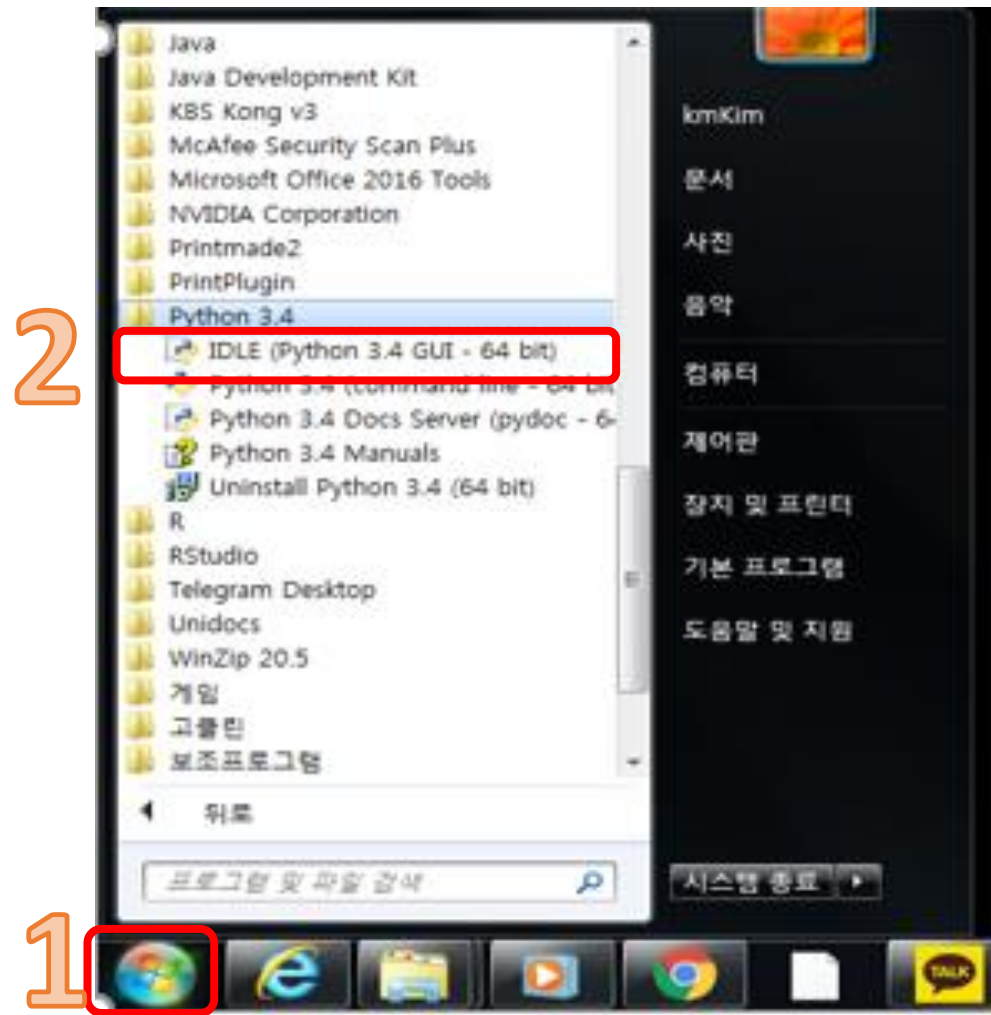
# Mac OS, 설치 과정 (7/7)

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- 실행 경로: Finder – 응용프로그램 – Python 3.4 – IDLE

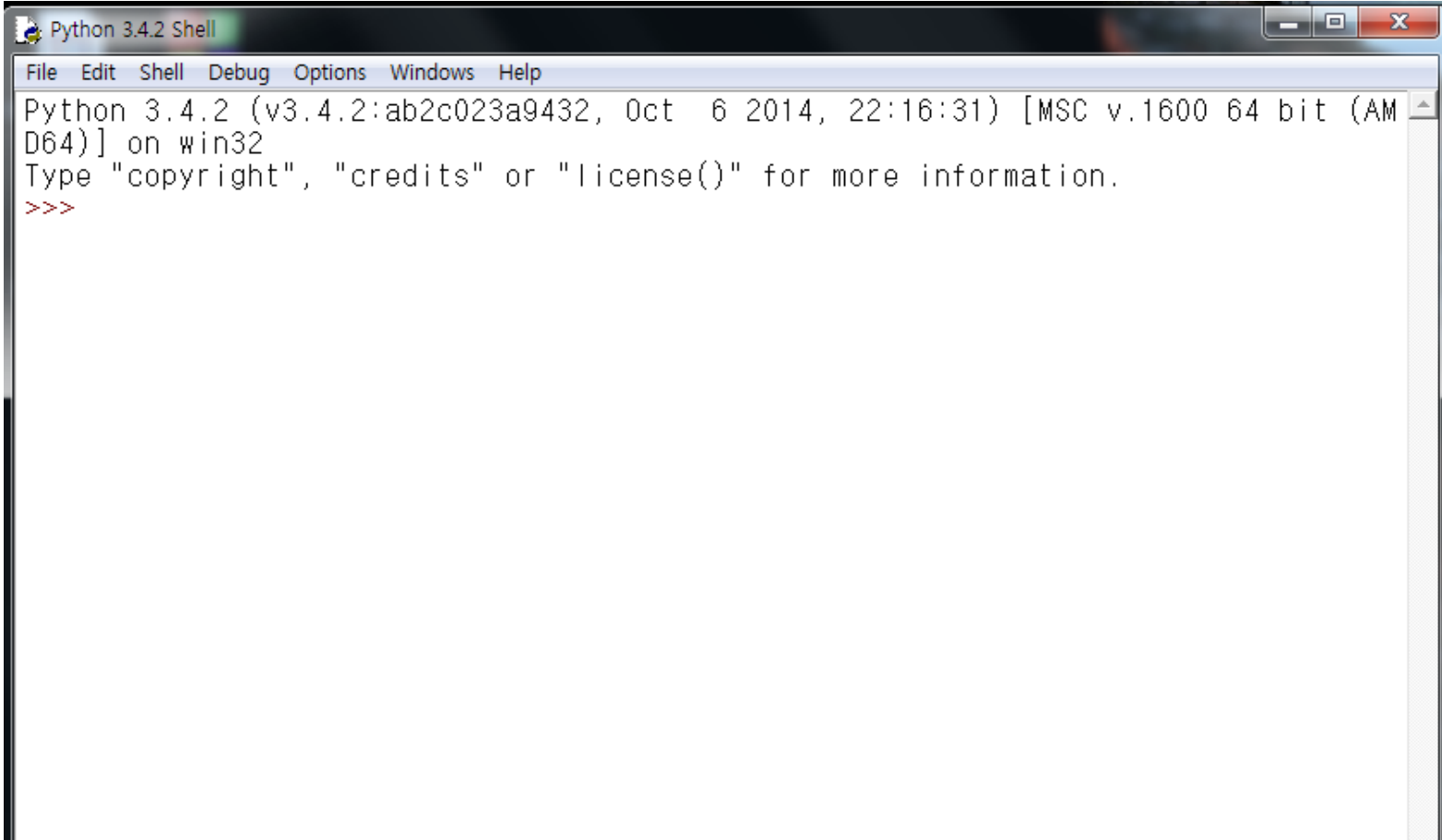


# Windows, 실행해 보기



# 실행해 보기, IDLE

---



```
Python 3.4.2 Shell
File Edit Shell Debug Options Windows Help
Python 3.4.2 (v3.4.2:ab2c023a9432, Oct 6 2014, 22:16:31) [MSC v.1600 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
```

# IDLE

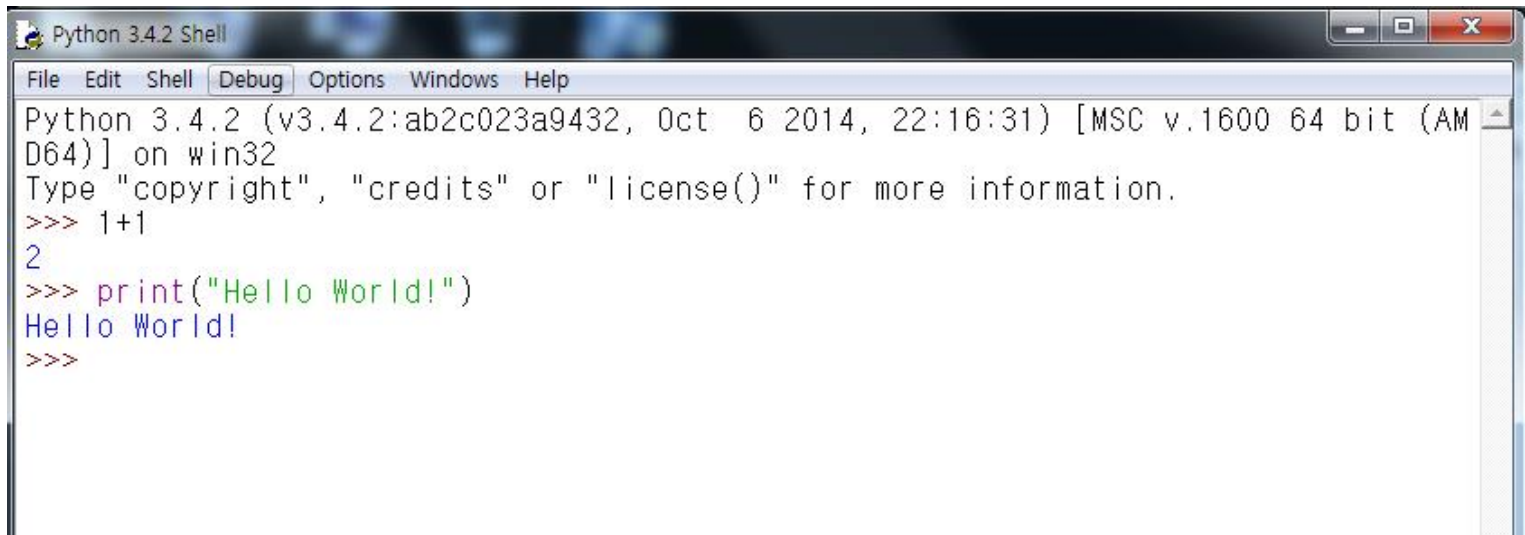
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- **Integrated DeveLopment Environment for Python**
- **the Python IDE built with the Tkinter GUI toolkit**
  - 파이썬으로 만들어졌으며, Tkinter GUI 지원
  - 윈도우와 유닉스에서 사용 가능
  - 여러 개의 작업 가능하고, 입력 취소 기능 제공
  - 간단한 디버깅 기능 제공

# IDLE실행 – 상호작용 방식

---

- 파이썬 인터프리터 사용
  - interactive mode
    - `>>> 1 + 1`
    - `2`
    - `>>> print("Hello World!")`
    - `Hello World!`

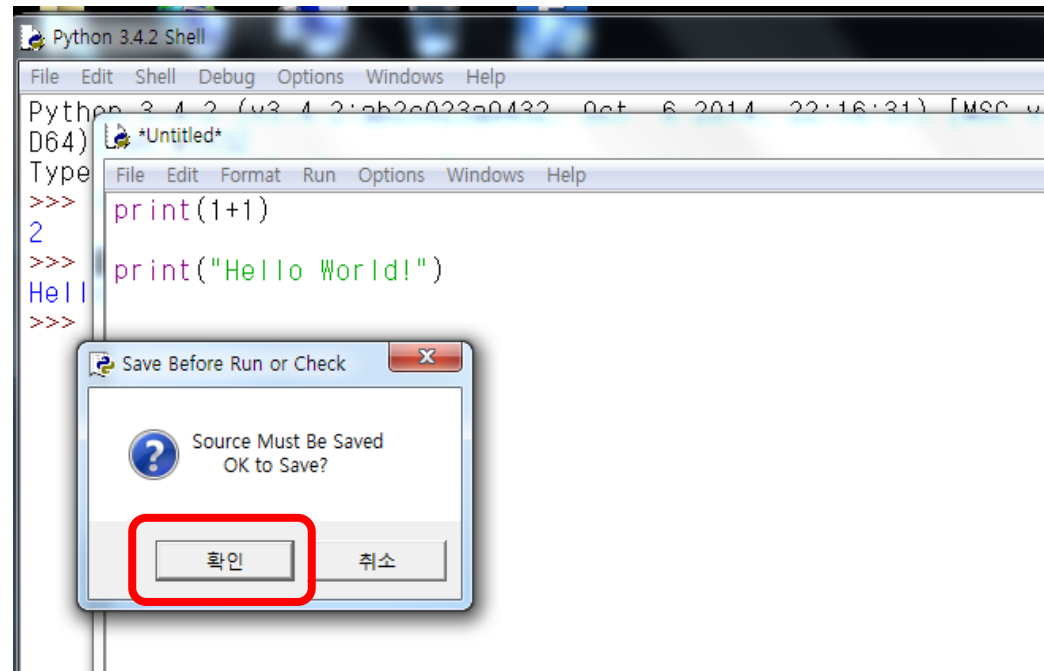


```
Python 3.4.2 Shell
File Edit Shell Debug Options Windows Help
Python 3.4.2 (v3.4.2:ab2c023a9432, Oct 6 2014, 22:16:31) [MSC v.1600 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> 1+1
2
>>> print("Hello World!")
Hello World!
>>>
```

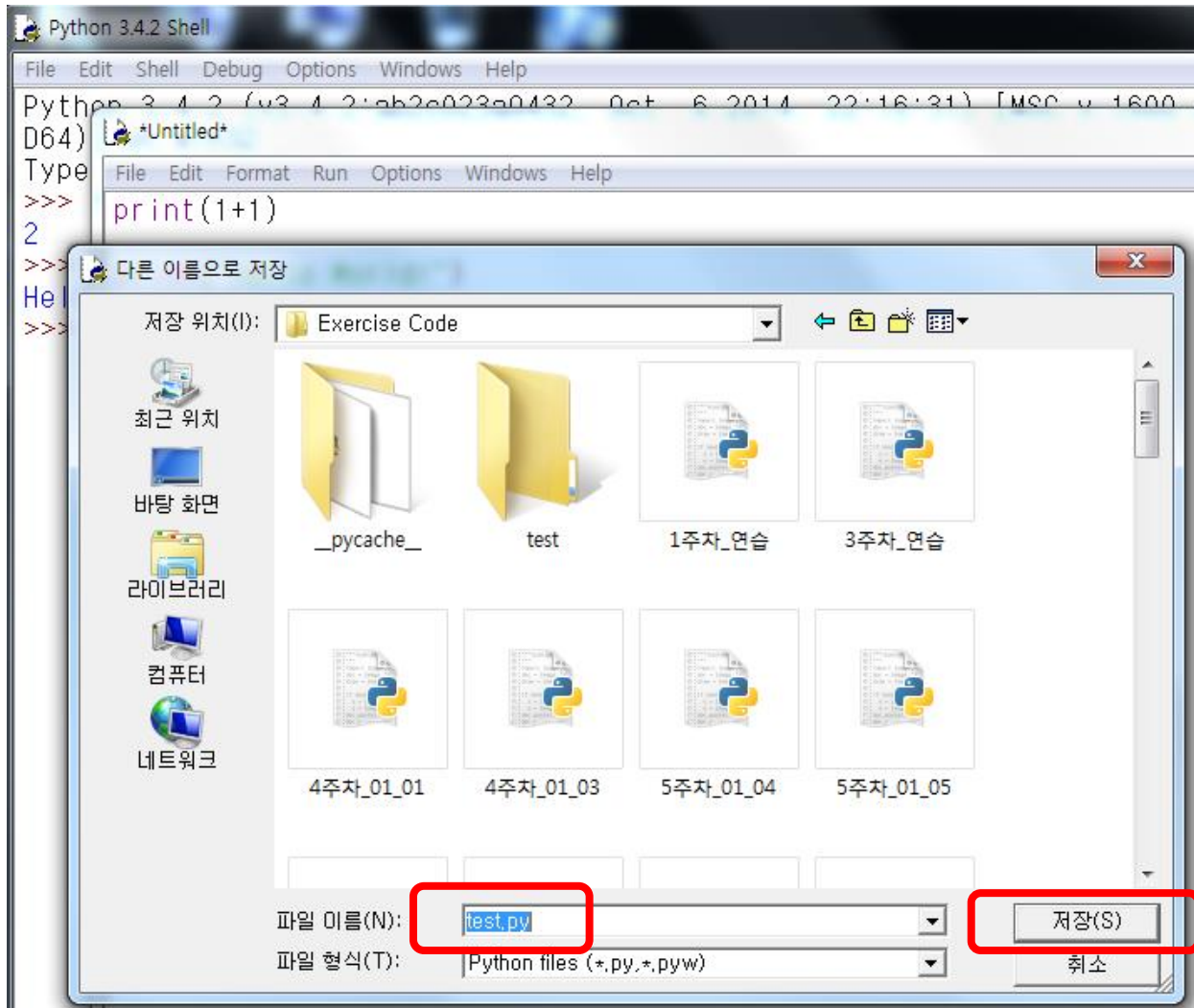
# IDLE실행 – 스크립트 방식(1/3)

---

- 파이썬 스크립트는 .py로 끝나는 파일로 저장
- “File”을 클릭 후 – “New file” 클릭
- 키보드로 입력
  - `print(1+1)`
  - `print(“Hello World!”)`
- 저장 후 실행(**F5**)

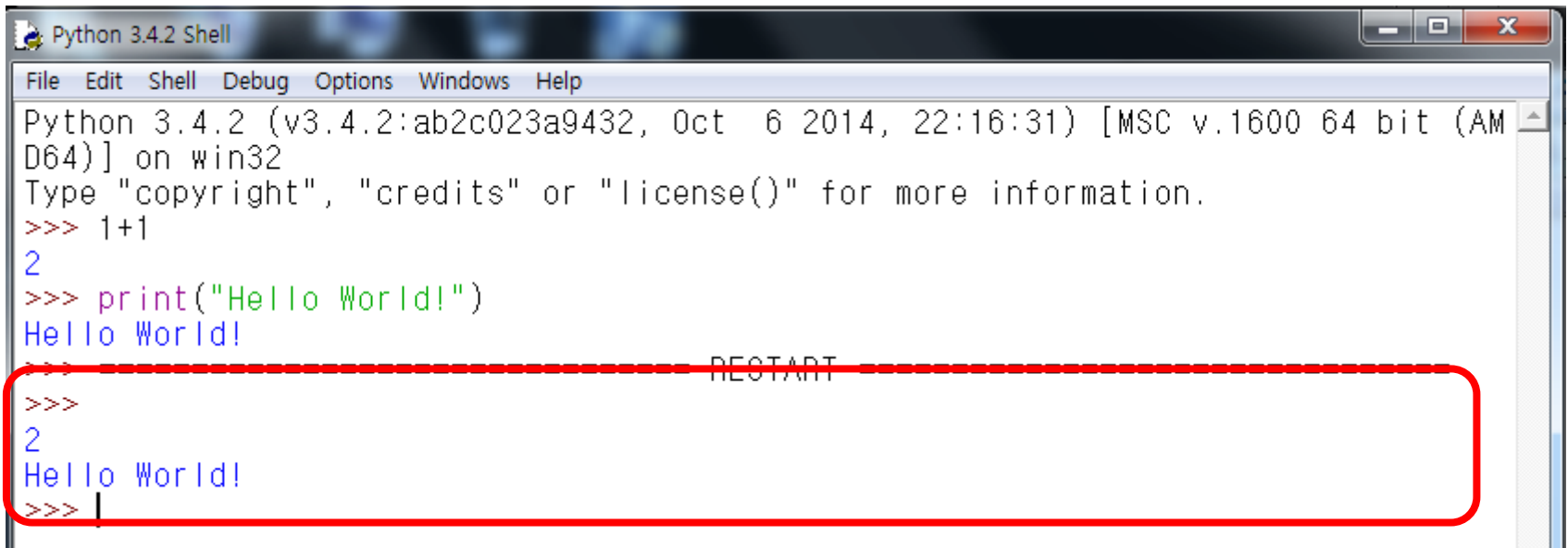


# IDLE실행 - 스크립트 방식(2/3)



# IDLE실행 - 스크립트 방식(3/3)

---



```
Python 3.4.2 Shell
File Edit Shell Debug Options Windows Help
Python 3.4.2 (v3.4.2:ab2c023a9432, Oct 6 2014, 22:16:31) [MSC v.1600 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> 1+1
2
>>> print("Hello World!")
Hello World!
>>>
>>>
2
Hello World!
>>> |
```

The screenshot shows a Python 3.4.2 Shell window. The window title is "Python 3.4.2 Shell". The menu bar includes "File", "Edit", "Shell", "Debug", "Options", "Windows", and "Help". The main text area displays the following content:

```
Python 3.4.2 (v3.4.2:ab2c023a9432, Oct 6 2014, 22:16:31) [MSC v.1600 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> 1+1
2
>>> print("Hello World!")
Hello World!
>>>
>>>
2
Hello World!
>>> |
```

A red rounded rectangle highlights the output of the previous run, which includes the prompt ">>>", the input "1+1", the output "2", the prompt ">>>", the input "print('Hello World!')", the output "Hello World!", and the prompt ">>>".



# 사용 예제 (Text)

---

```
milesDriven = input("Enter miles driven:")  
milesDriven = float(milesDriven)
```

```
gallonsUsed = input("Enter gallons used:")  
gallonsUsed = float(gallonsUsed)
```

```
mpg = milesDriven / gallonsUsed  
print("Miles per gallon:",mpg)
```

# 사용 예제 (move)

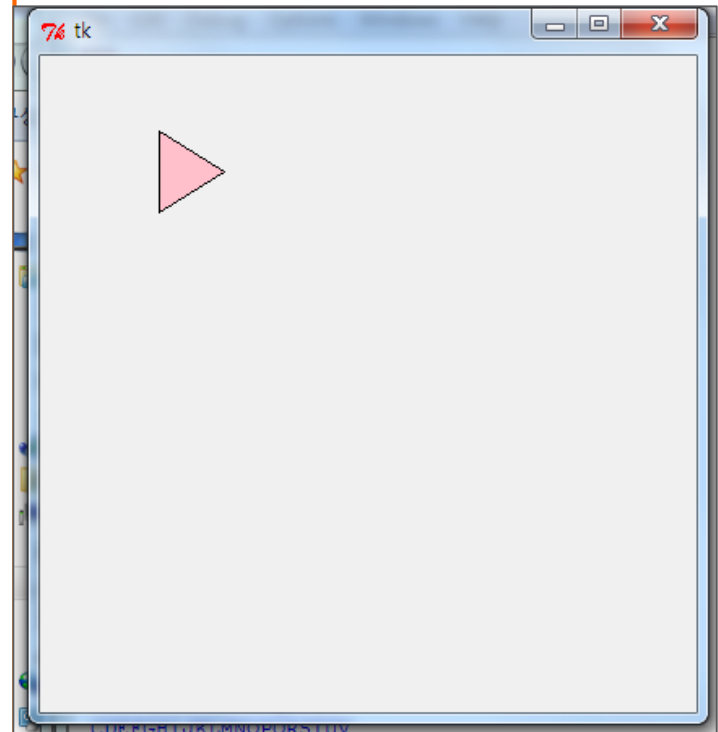
```
from tkinter import *
tk = Tk()

canvas = Canvas(tk, width=400, height=400)
canvas.pack()

my_t = canvas.create_polygon(10,10,10,60,50,35,fill='pink',
outline='black')

def movetriangle(event):
    if event.keysym=='Up':
        canvas.move(my_t,0,-3)
        canvas.itemconfig(my_t, fill='pink')
    elif event.keysym=='Down':
        canvas.move(my_t,0,3)
        canvas.itemconfig(my_t, fill='grey')
    elif event.keysym=='Left':
        canvas.move(my_t,-3, 0)
        canvas.itemconfig(my_t, fill='lightblue')
    else :
        canvas.move(my_t,3,0)
        canvas.itemconfig(my_t, fill='white')

canvas.bind_all('<KeyPress-Up>', movetriangle)
canvas.bind_all('<KeyPress-Down>', movetriangle)
canvas.bind_all('<KeyPress-Left>', movetriangle)
canvas.bind_all('<KeyPress-Right>', movetriangle)
```



# 사용 예제 (draw)

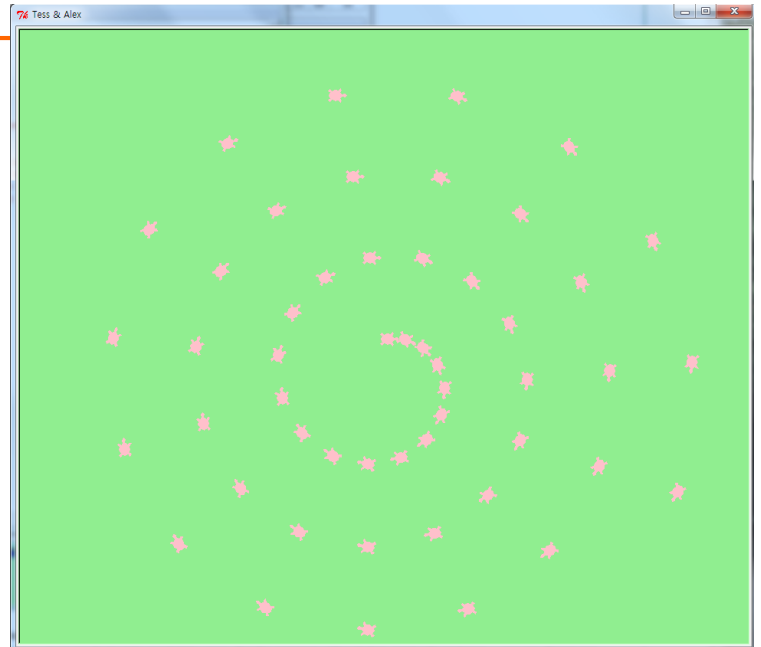
```
import turtle

wn = turtle.Screen()
wn.bgcolor("Catch Round")

t = turtle.Turtle()
t.shape("turtle")
t.color("pink")

t.penup()
size = 20 # This is new

for i in range(50):
    t.stamp() # Leave an impression on the canvas
    size = size + 3 # Increase the size on every iteration
    t.forward(size) # Move tess along
    t.right(24) # ... and turn her
```



# 사용 예제 (web)

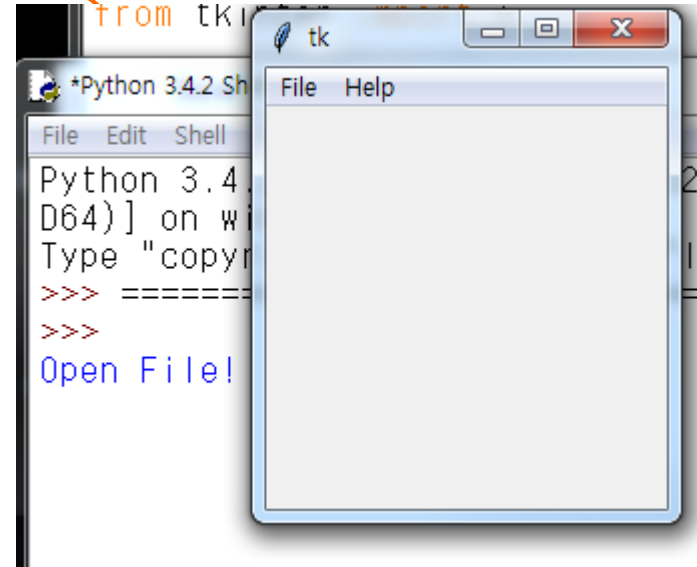
```
from tkinter import *

def NewFile() :
    print("New File!")
def OpenFile() :
    print("Open File!")
def About() :
    print("This is a simple example of a menu")

root = Tk()
menu = Menu(root)
root.config(menu=menu)
filemenu = Menu(menu)
menu.add_cascade(label="File", menu=filemenu)
filemenu.add_command(label="New", command=NewFile)
filemenu.add_command(label="Open...", command=OpenFile)
filemenu.add_separator()
filemenu.add_command(label="Exit", command=root.quit)

helpmenu = Menu(menu)
menu.add_cascade(label="Help", menu=helpmenu)
helpmenu.add_command(label="About...", command=About)

mainloop()
```



# 요약

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- 파이썬 IDLE 설치
- Python.org
- 처음으로 사용해 보기
  - 상호작용 모드
  - 스크립트 모드

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# 감사합니다

1주차\_02 파이썬 설치