



INTRODUCTION TO PYTHON & ENVIRONMENT SET UP

Agenda

- What is python
- Characteristics of python
- Features
- Who uses python
- Releases
- Installation and path set up
- Comments in python
- Python IDLE

What is Python

- Python is a powerful high-level, object-oriented programming language created by Guido van Rossum, released in 1991.
- It has simple easy-to-use syntax, making it the perfect language for someone trying to learn computer programming for the first time.

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- Multi-purpose (Web, GUI, Scripting, etc.)
- Object Oriented
- Interpreted
- Strongly typed and Dynamically typed
- Focus on readability and productivity

Features

- A simple language which is easier to learn
- Free and open-source
- Portability
- Extensible and Embeddable
- A high-level, interpreted language
- Large standard libraries to solve common

Who Uses Python

- Google
- PBS(Public Broadcast Service)
- NASA(For Scientific Applications)
- the ONION(America's Finest News Source)

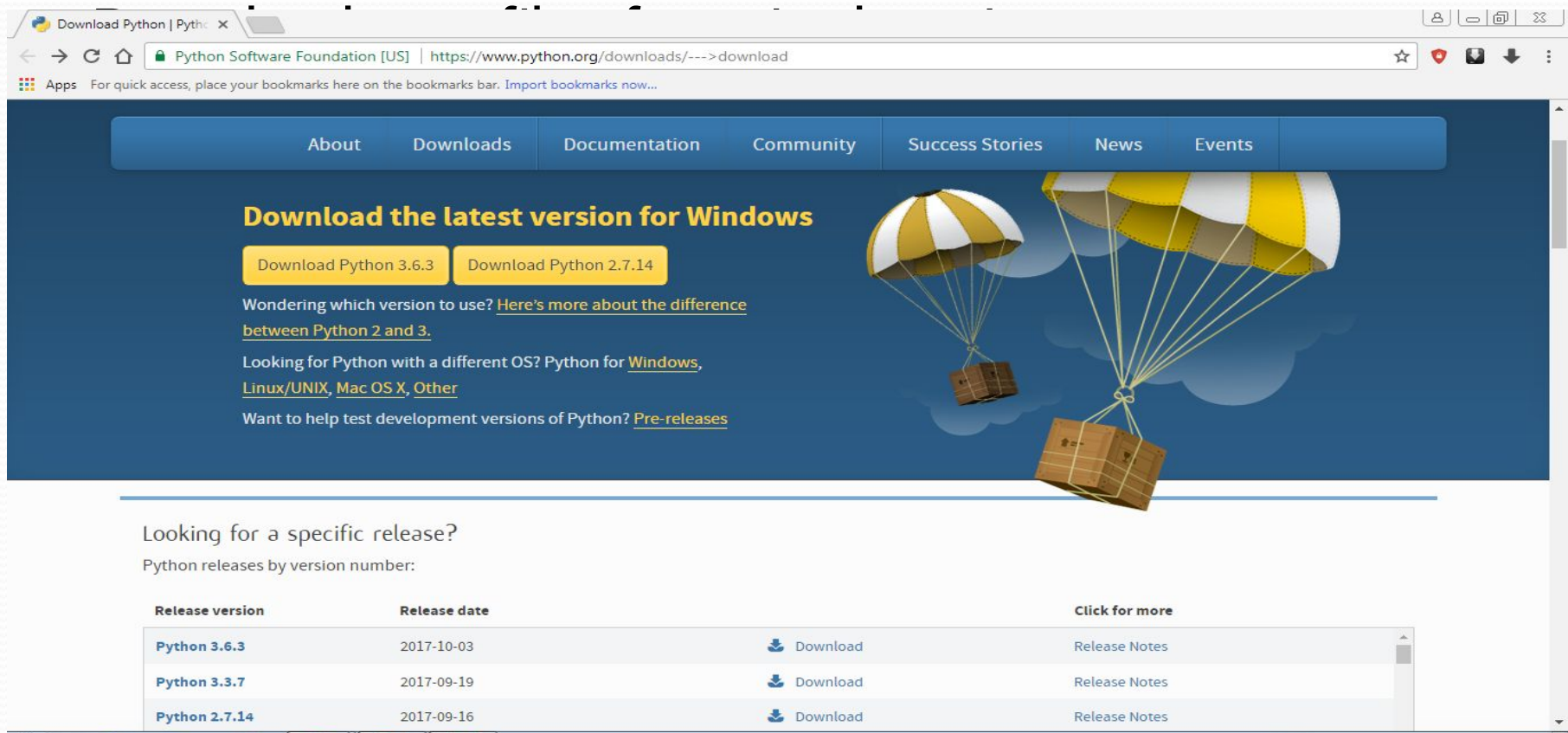
Releases

- Created in 1989 by Guido Van Rossum
- Python 1.0 released in 1994
- Python 2.0 released in 2000
- Python 3.0 released in 2008 etc
- Python 3.6.3, released in 03 October 2017.

Python Installation

- Go Through website

<https://www.python.org/downloads/>



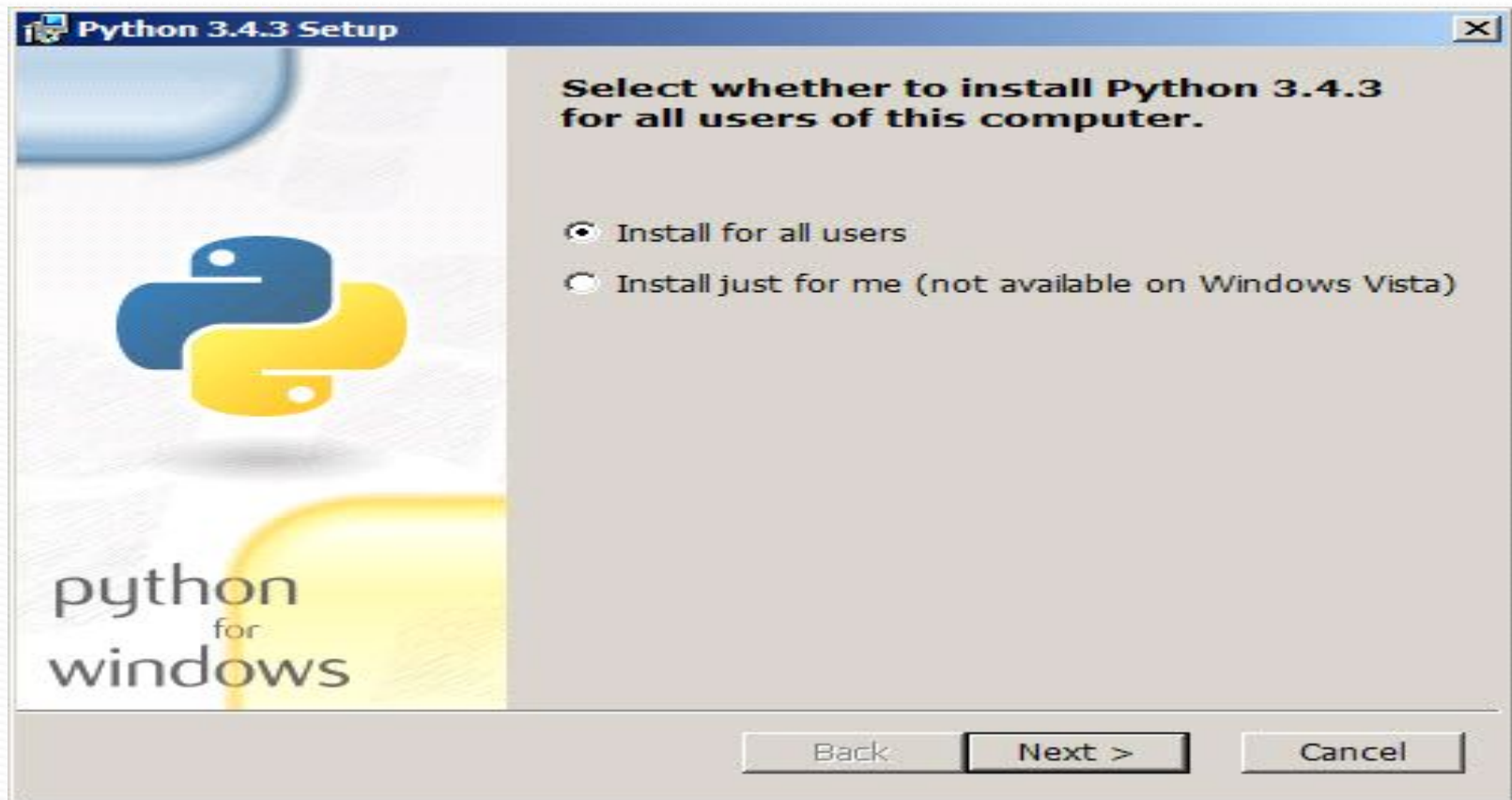
The screenshot shows the Python.org website's download page. The browser's address bar displays the URL <https://www.python.org/downloads/>. The website's navigation bar includes links for About, Downloads, Documentation, Community, Success Stories, News, and Events. The main content area features a large blue banner with the heading "Download the latest version for Windows". Below this heading are two yellow buttons: "Download Python 3.6.3" and "Download Python 2.7.14". To the right of these buttons is an illustration of two parachutes carrying boxes. Below the buttons, there is a paragraph of text: "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](#)". Below the banner, there is a section titled "Looking for a specific release?" with the text "Python releases by version number:". This section contains a table with three columns: "Release version", "Release date", and "Click for more". The table lists three releases: Python 3.6.3 (2017-10-03), Python 3.3.7 (2017-09-19), and Python 2.7.14 (2017-09-16). Each row has a "Download" link and a "Release Notes" link.

Release version	Release date	Click for more
Python 3.6.3	2017-10-03	Download Release Notes
Python 3.3.7	2017-09-19	Download Release Notes
Python 2.7.14	2017-09-16	Download Release Notes

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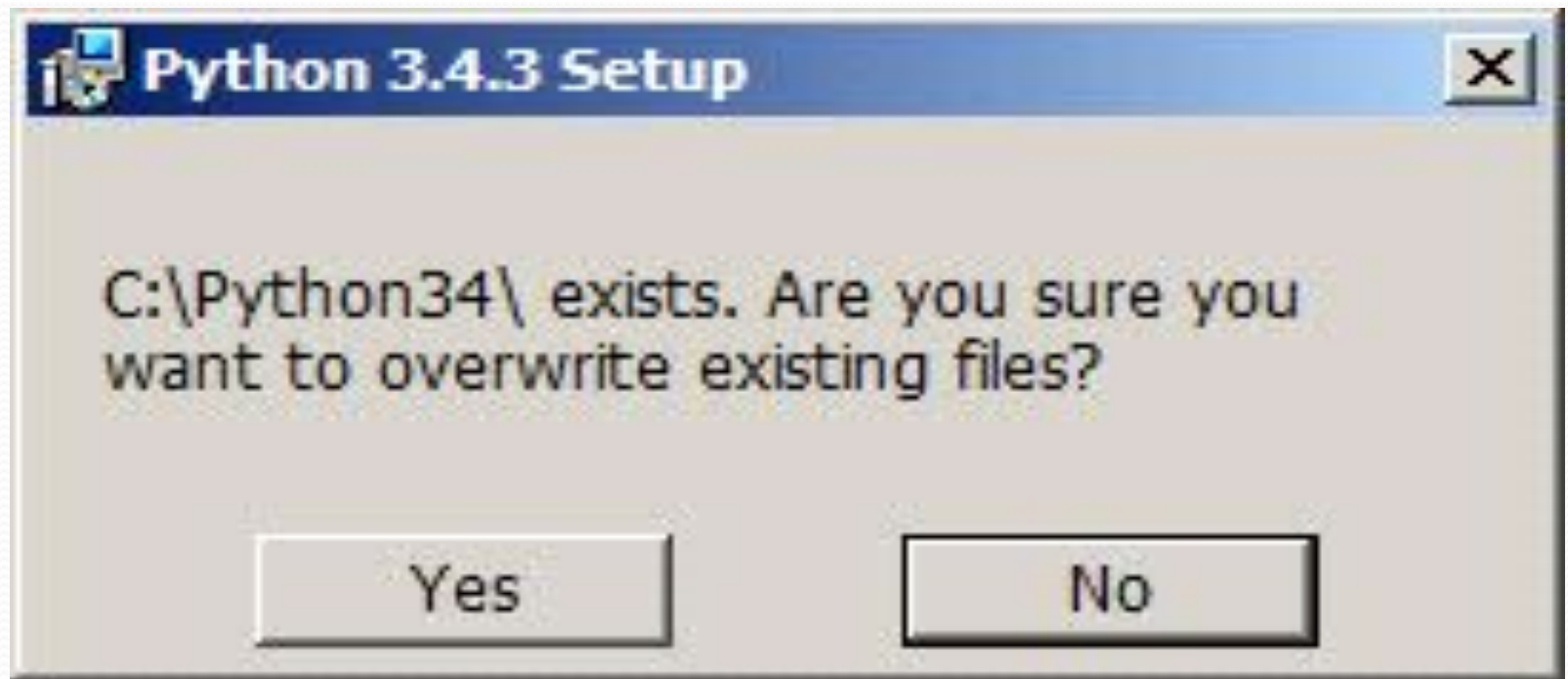
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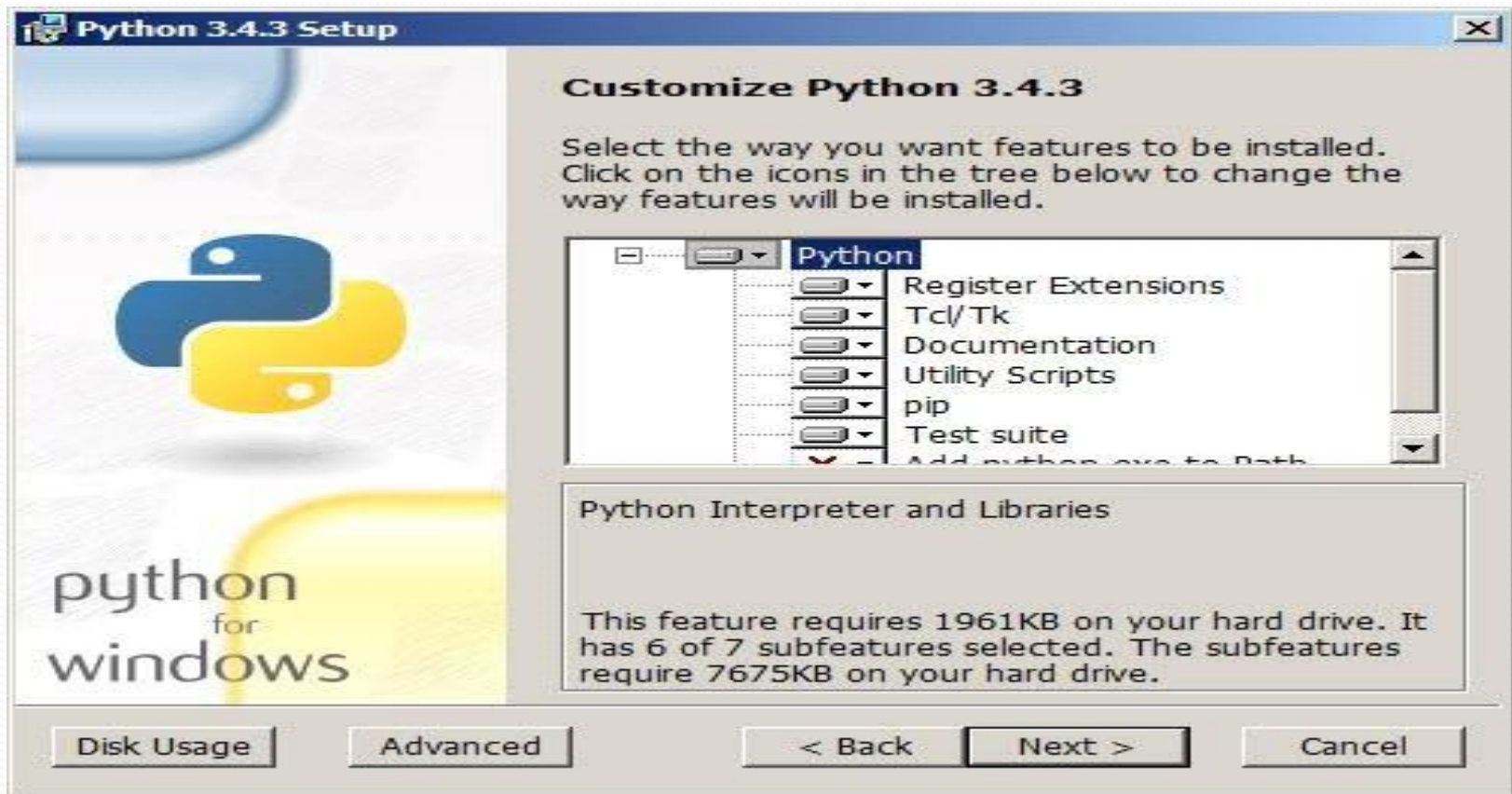
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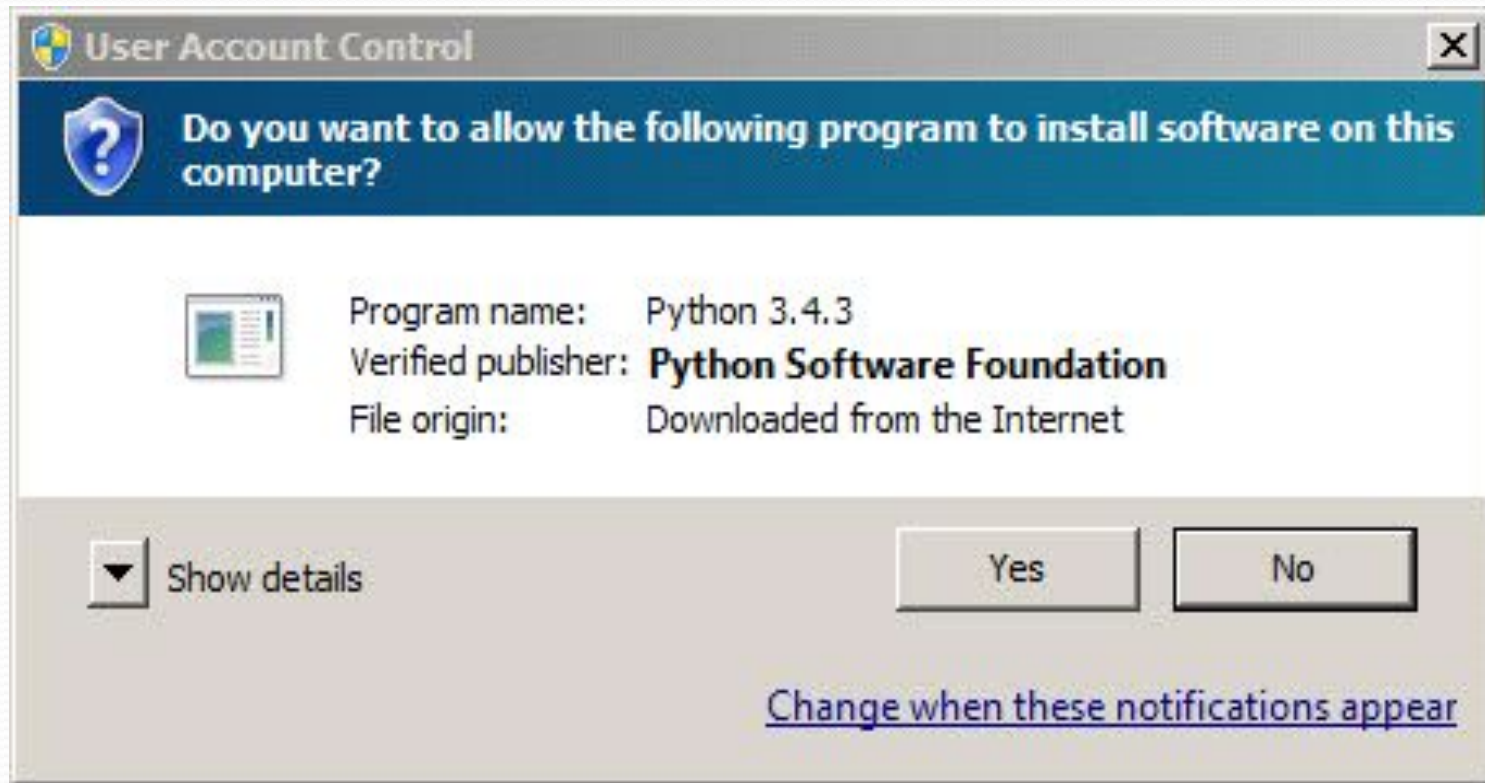
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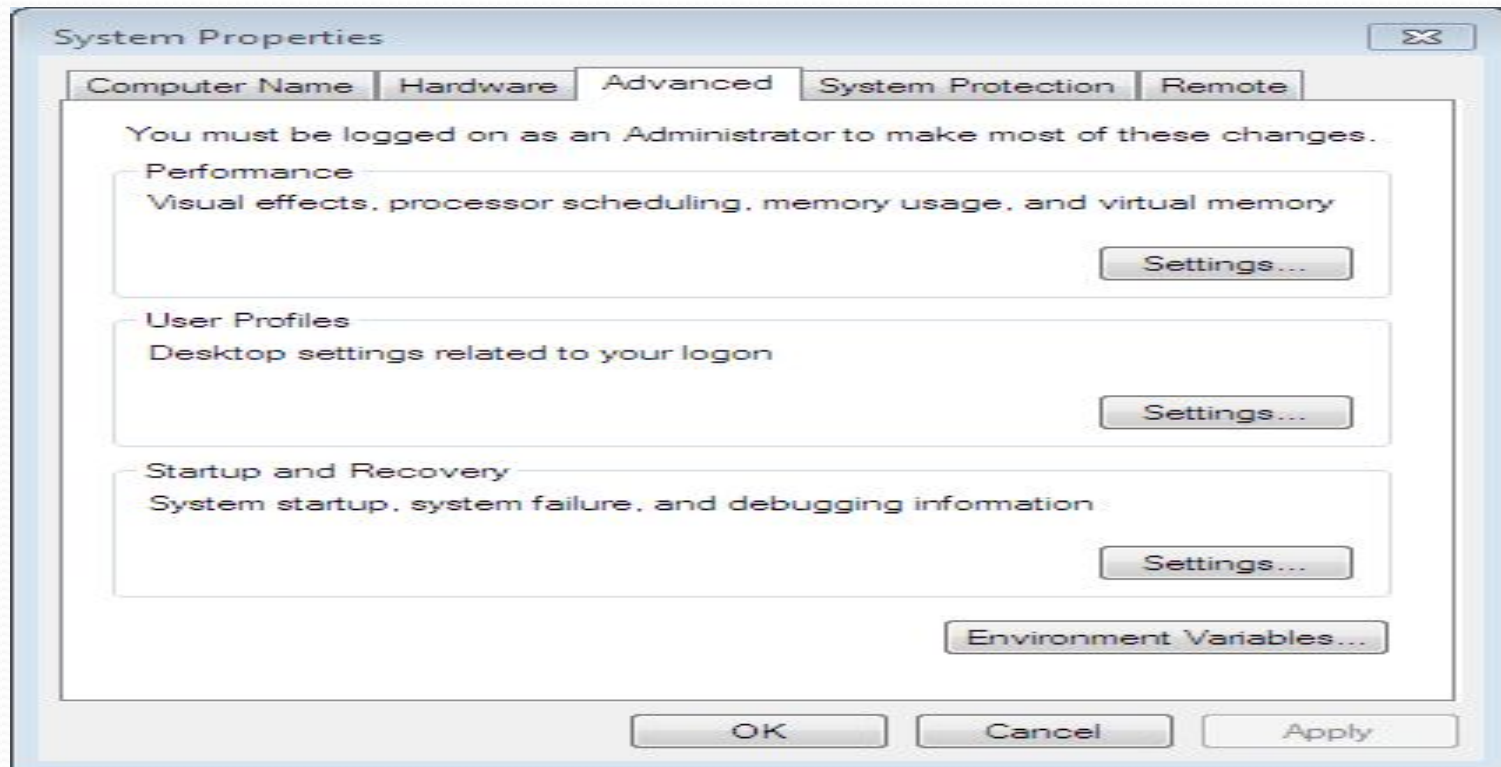


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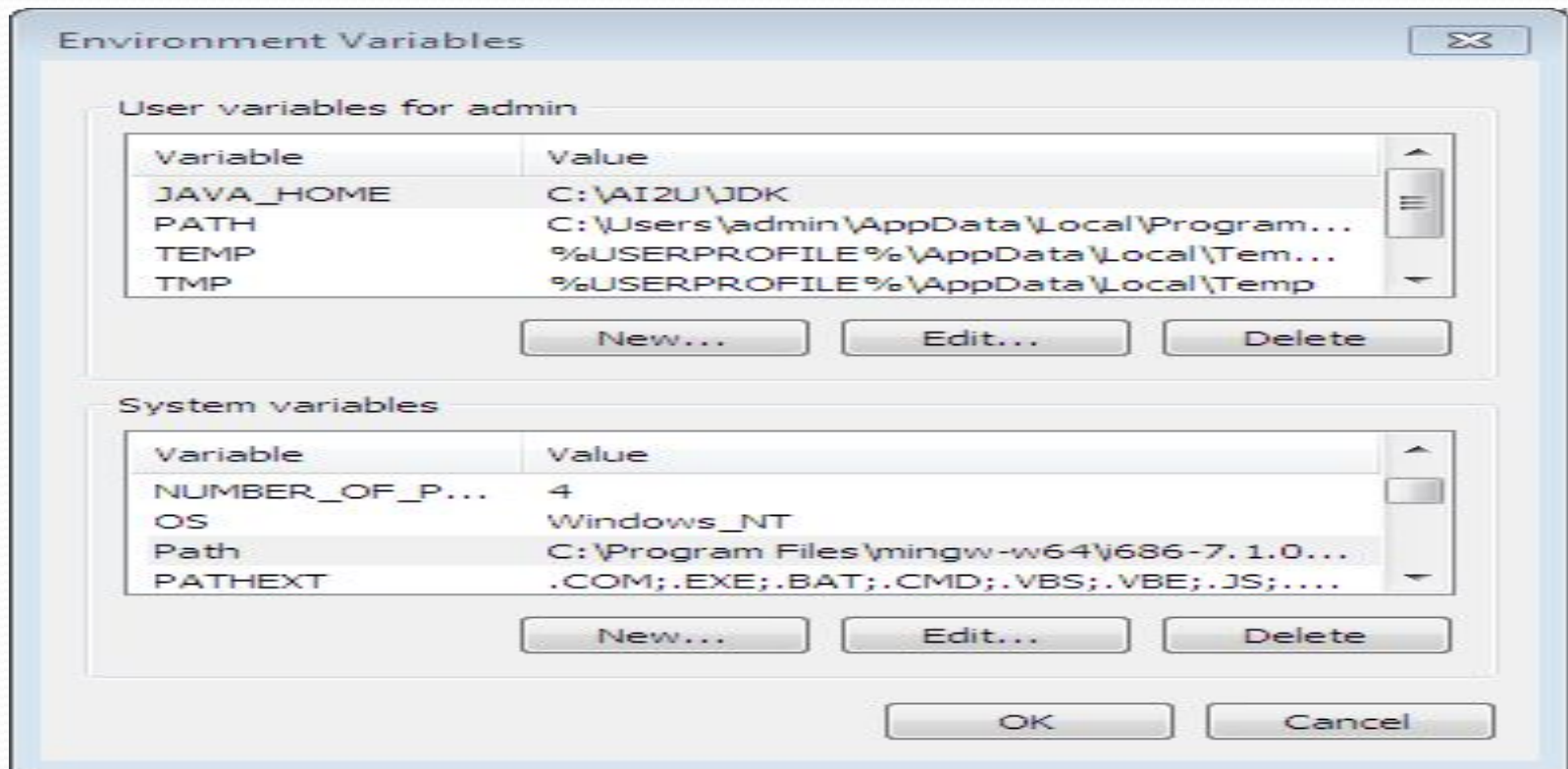
Path Setting for Windows 7

- Computers→Properties→Advanced System Settings
- Then a pop up window like below will open



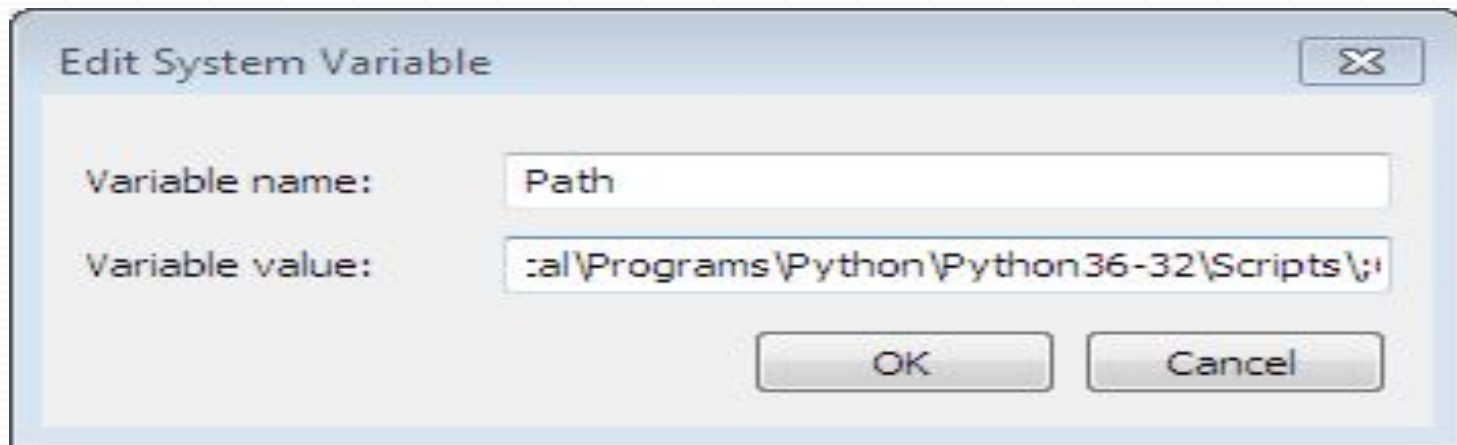
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- Click on Environment variables.
- Under System Variables→Select path→Edit

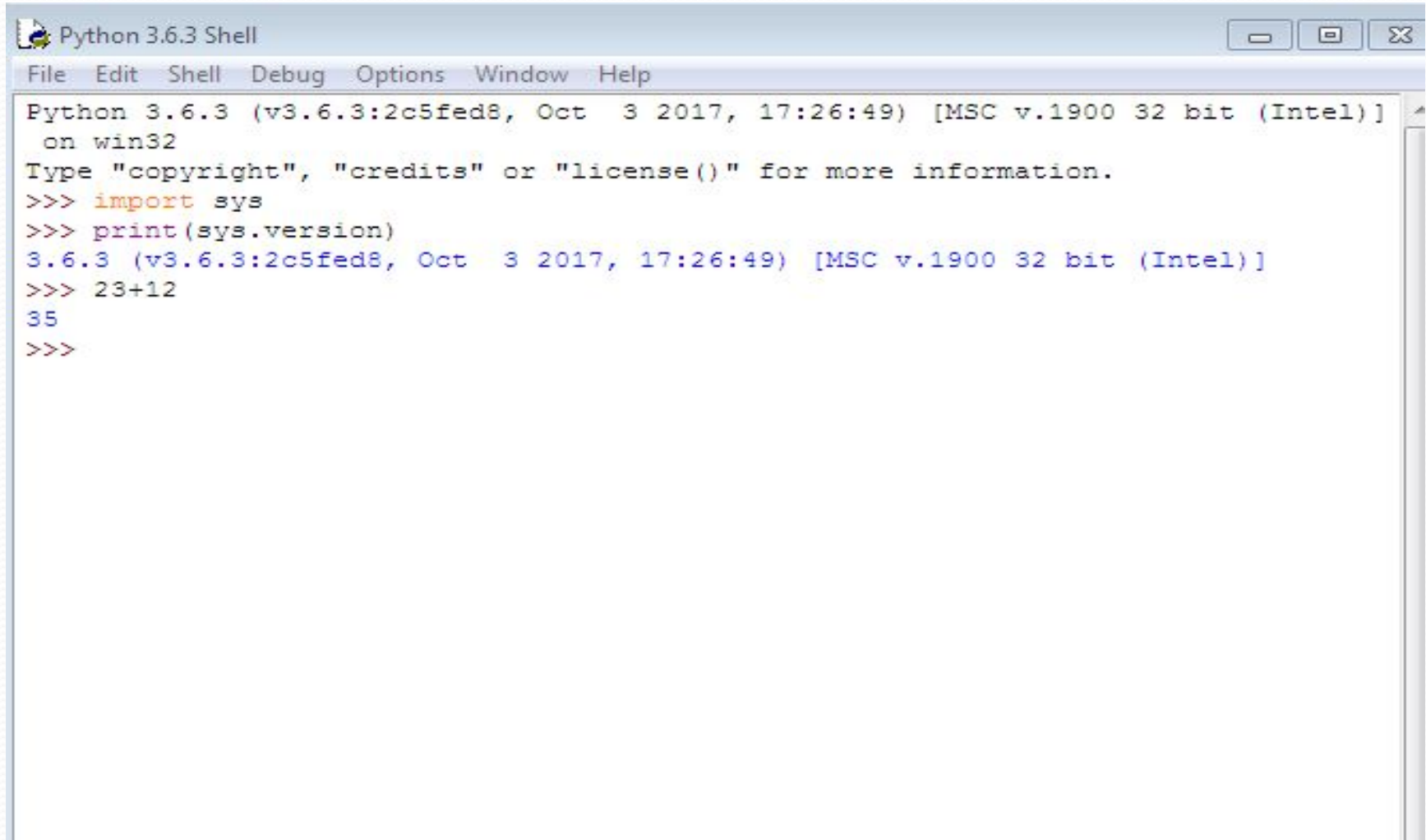


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- Copy the path where python is installed and paste under Edit system variables → variables value and then click ok



Python Shell or IDLE



```
Python 3.6.3 Shell
File Edit Shell Debug Options Window Help
Python 3.6.3 (v3.6.3:2c5fed8, Oct  3 2017, 17:26:49) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>> import sys
>>> print(sys.version)
3.6.3 (v3.6.3:2c5fed8, Oct  3 2017, 17:26:49) [MSC v.1900 32 bit (Intel)]
>>> 23+12
35
>>>
```

Comments

- Single-line comments are created simply by beginning a line with the hash (#) character, and they are automatically terminated by the end of line
- Comments that span multiple lines – used to explain things in more detail – are created by adding a delimiter (“”) on each end of the comment.
- “” ”” This would be a multiline comment

Using command prompt and GUI or IDE, Applications

Command Prompt - python

```
Microsoft Windows [Version 10.0.10240]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\Ramesh Sai Kumar>python
Python 3.4.4 (v3.4.4:737efcadf5a6, Dec 20 2015, 20:20:57) [MSC v.1600 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> 2+3
5
>>> 3*7
21
>>> 888-777
111
>>>
```