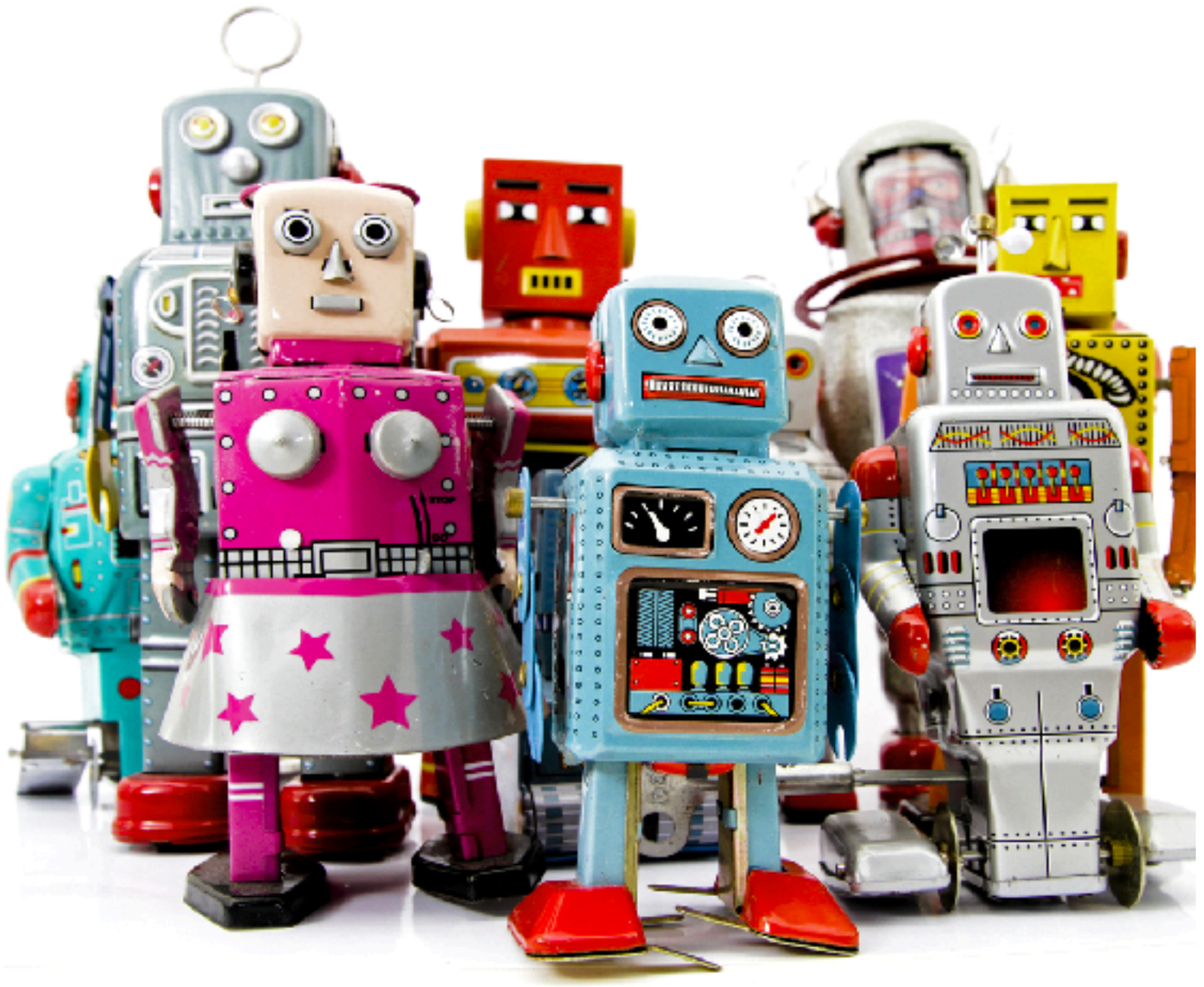


# Acceptance Test-Driven Development with Robot Framework

# Agenda

# Day 1

**A**cceptance **T**est-**D**riven **D**evelopment

Concept of Robot Framework

Installation

## Architecture of Robot Framework

# Day 1

Create test case

Execute test case

How to write **better** test case ?

# Day 2

**D**ata **D**riven **T**esting

Test template

Working with command line

**APIs** testing

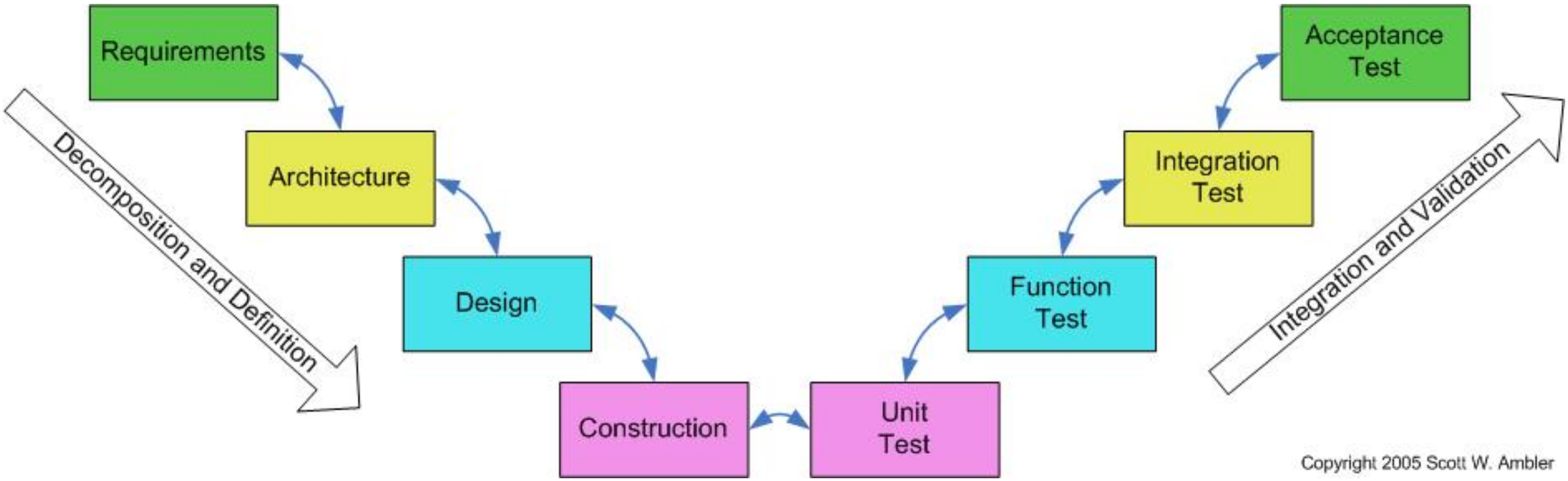
Integration with **C**ontinuous **I**ntegration

Custom test report

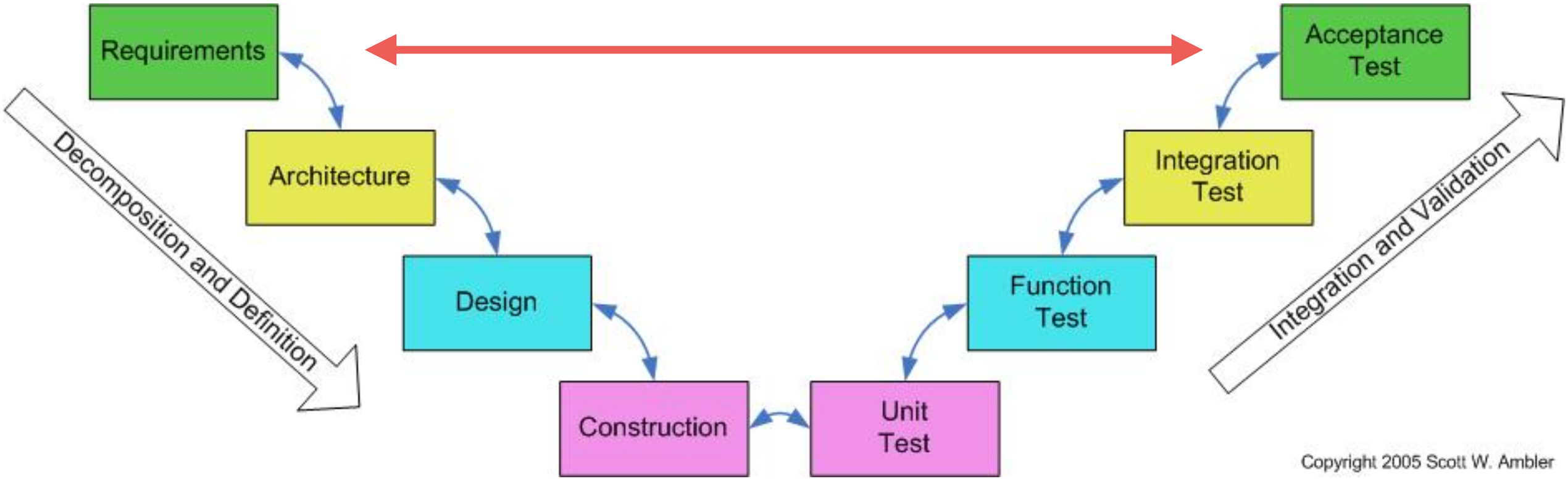
# Let’s start

# Write your Goal(s) !!

# V-Model


Requirements
Architecture
Design
Construction
Unit Test
Function Test
Integration Test
Acceptance Test
Decomposition and Definition
Integration and Validation
Copyright 2005 Scott W. Ambler

# V-Model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Construction
Unit Test
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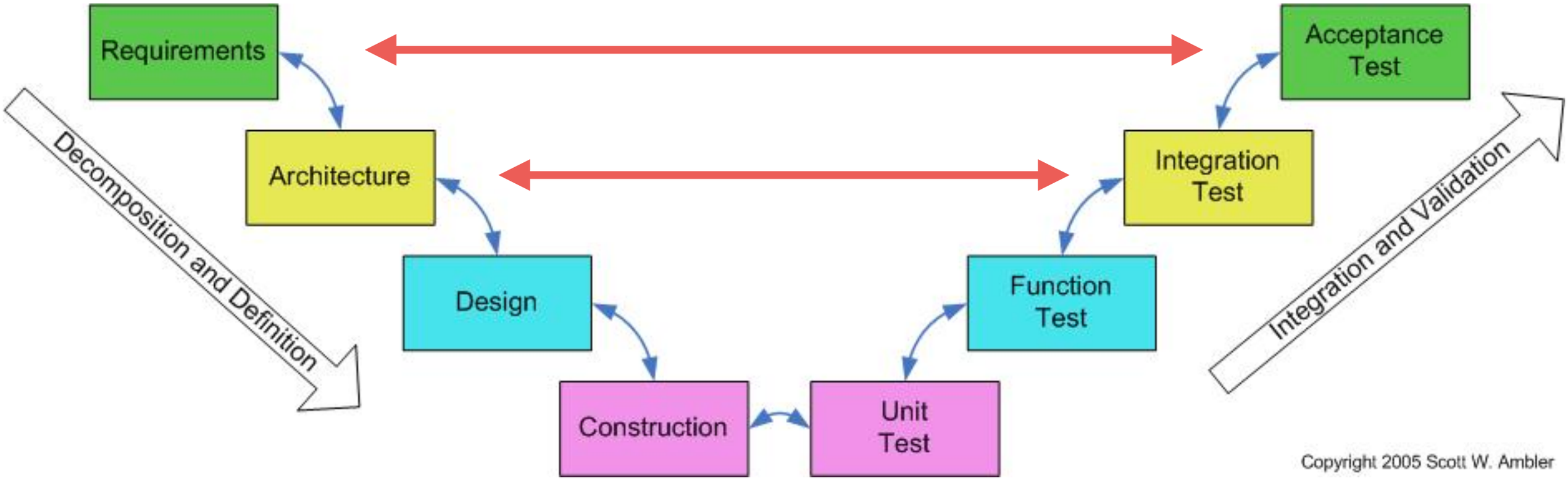
Integration and Validation
Copyright 2005 Scott W. Ambler

# V-Model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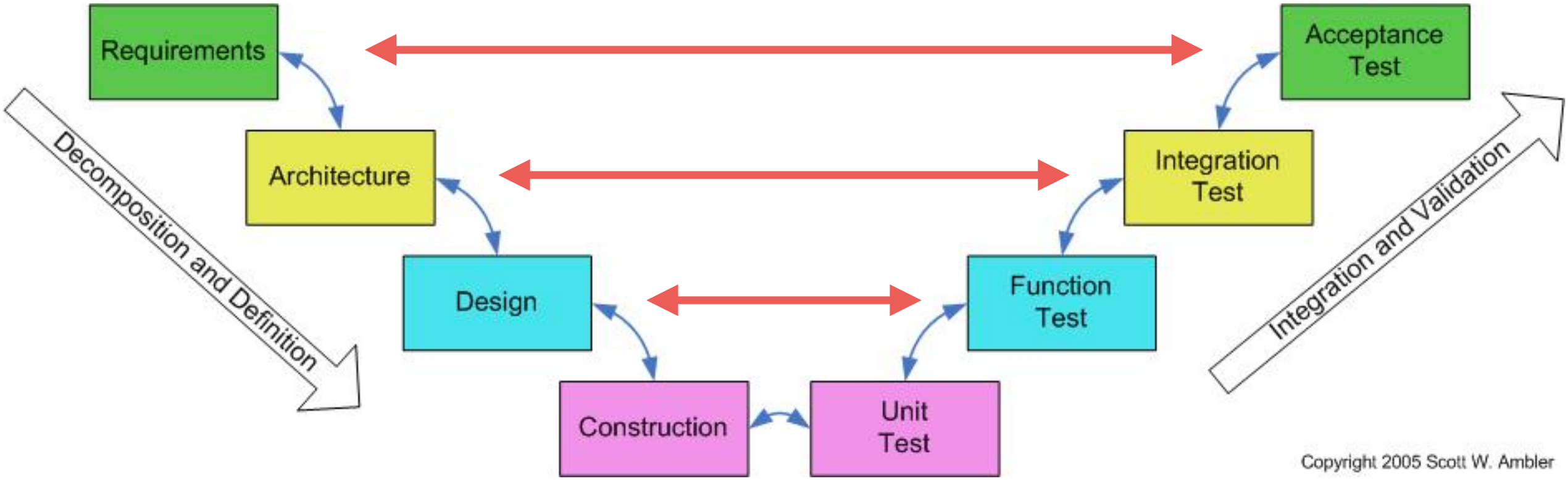
Copyright 2005 Scott W. Ambler

# V-Model


Requirements
Acceptance Test
Architecture
Integration Test
Design
Function Test
Construction
Unit Test
Decomposition and Definition
Integration and Validation
Copyright 2005 Scott W. Ambler

# **A**cceptance **T**est-**D**riven **D**evelopment

# ATDD

Common understanding

Common language

Executable requirements or examples

Living documentation

# Same goal !!

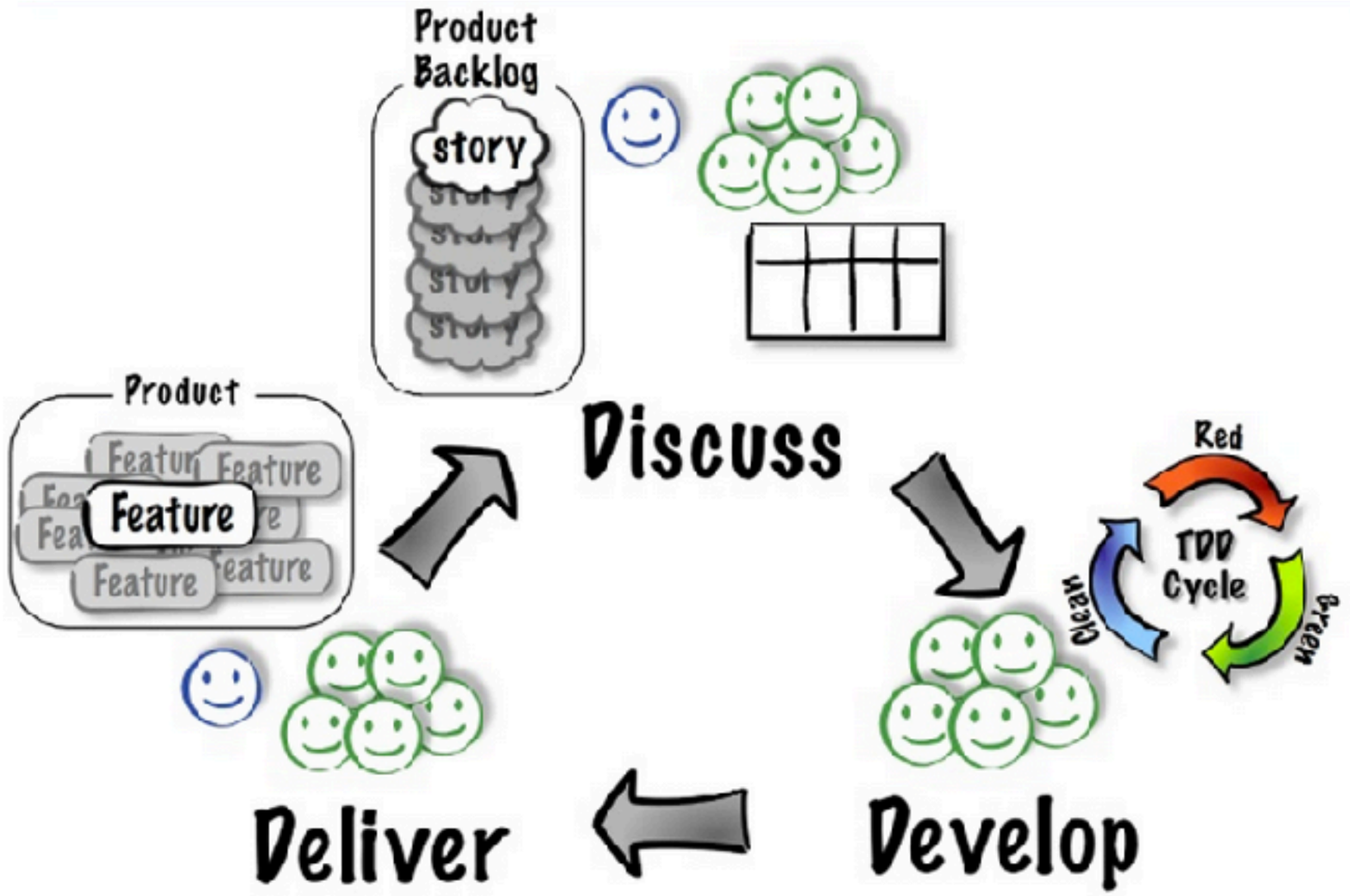
**S**tory **D**riven **D**evelopment

**B**ehavior **D**riven **D**evelopment

**S**pecification **b**y **E**xample

**E**xample **D**riven **D**evelopment

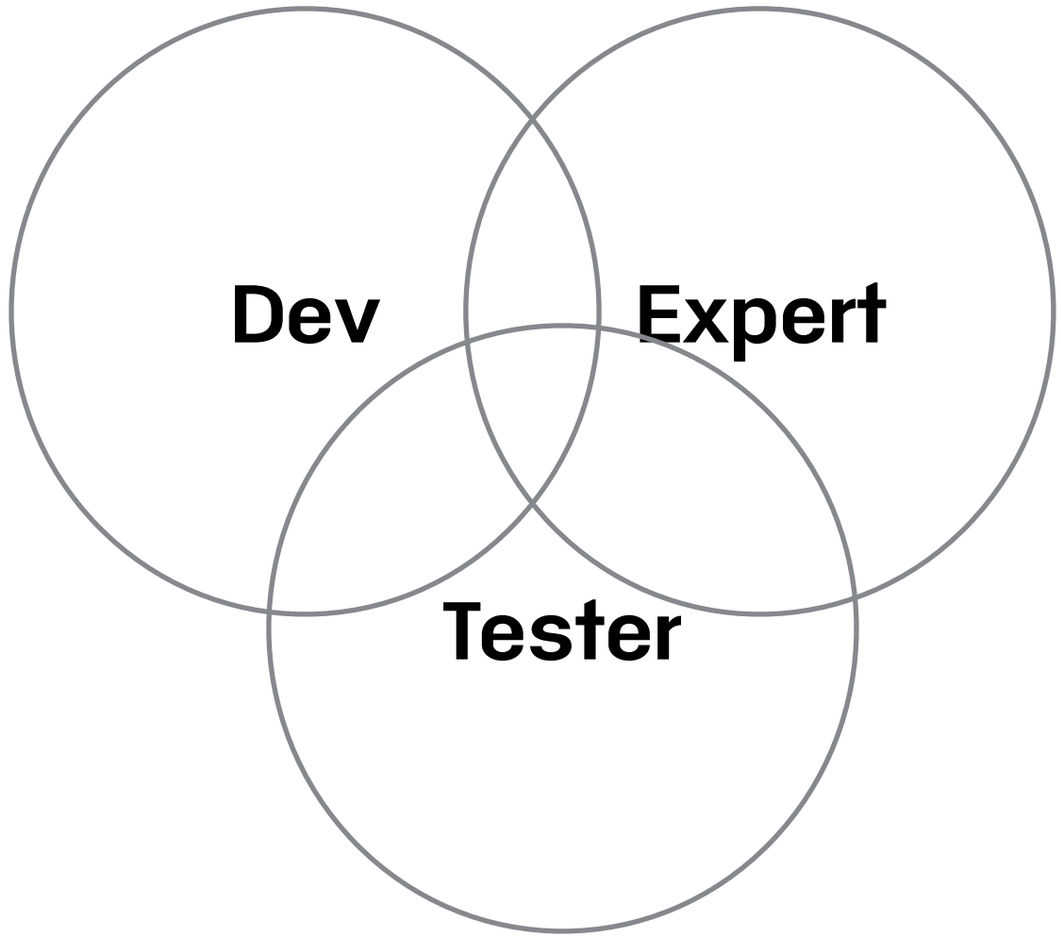
# ATDD cycle




*(Model developed with Pekka Klärck, Bas Vodde, and Craig Larman.)*

# 1. Discuss

## **Whole team** approach



# 1. Discuss

**Whole team** approach

**Sharing** understanding

**Clarify** the solution

## Concrete examples

Examples can be use in **automated** !!

# 2. Develop

**Implement** work with specified examples

**Automation** of the examples

**Whole team** is responsible on automation

At the end, all automated examples **pass**

# 3. Deliver

Features are **demonstrated** to all stakeholders

All examples pass (new + existing)

**Feedback** as input to the next discuss

**Acceptance Tests**

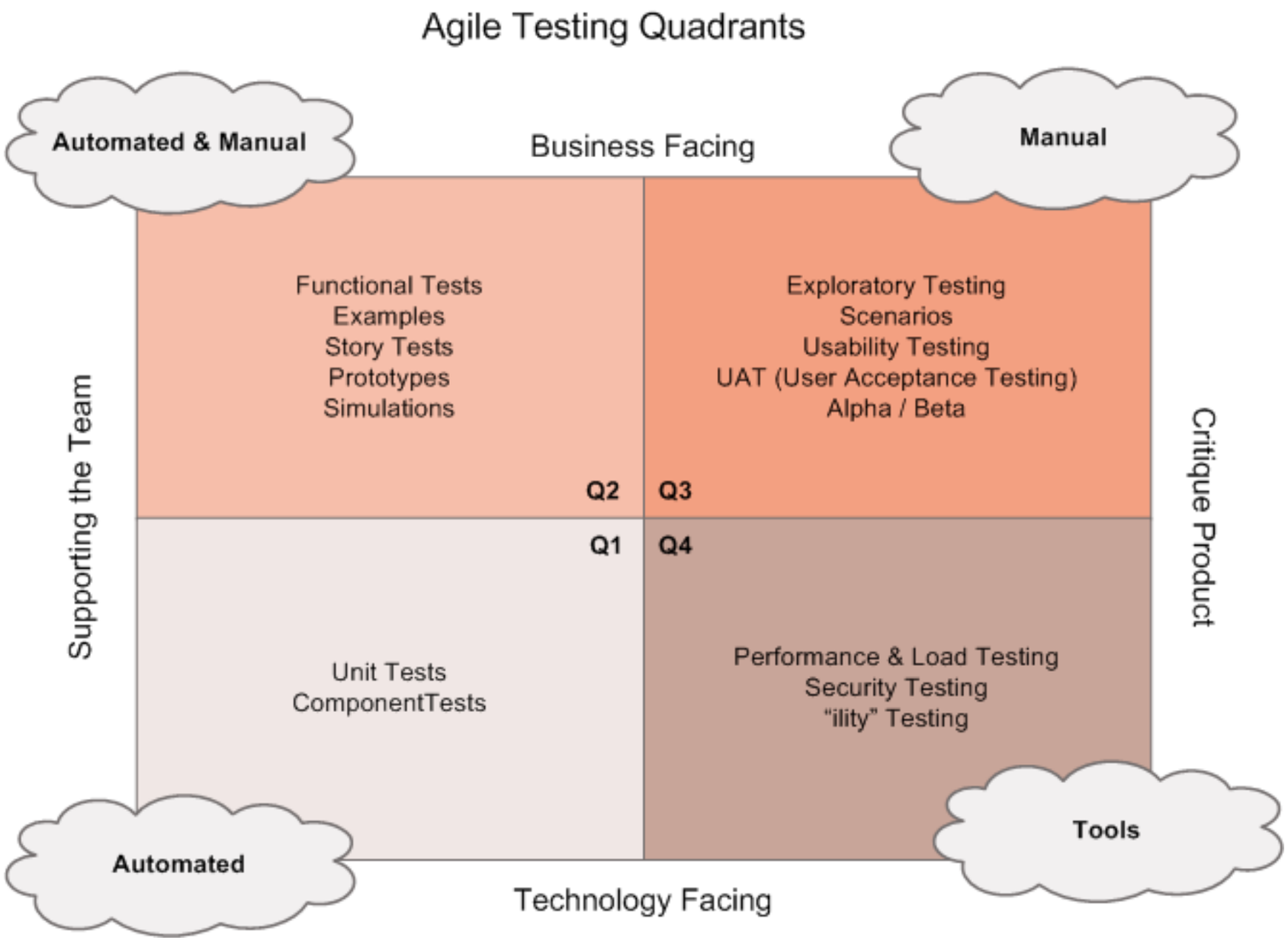
=

Acceptance Criteria

+

Examples(data + scenarios)

# Agile Testing



# Robot Framework

# Introduction

Test automation framework

Designed for Acceptance testing(ATDD)

Developed with Python

Compatible with Java (Jython)

# History

Started from **Pekka Klärck's** masters thesis

HELSINKI UNIVERSITY OF TECHNOLOGY

ABSTRACT OF THE MASTER'S THESIS

| | | |
|---|---|---|
| **Author:** | Pekka Laukkanen | |
| **Name of the thesis:** | Data-Driven and Keyword-Driven Test Automation Frameworks | |
| **Date:** | February 24, 2006 | **Number of pages:** 98 + 0 |
| **Department:** | Department of Computer Science and Engineering | **Professorship:** T-76 |
| **Supervisor:** | Prof. Reijo Sulonen | |
| **Instructor:** | Harri Töhönen, M.Sc. | |

# History

Initialed in 2005 by Nokia Siemens Network

Opensource in 2008

Created robotframework.org

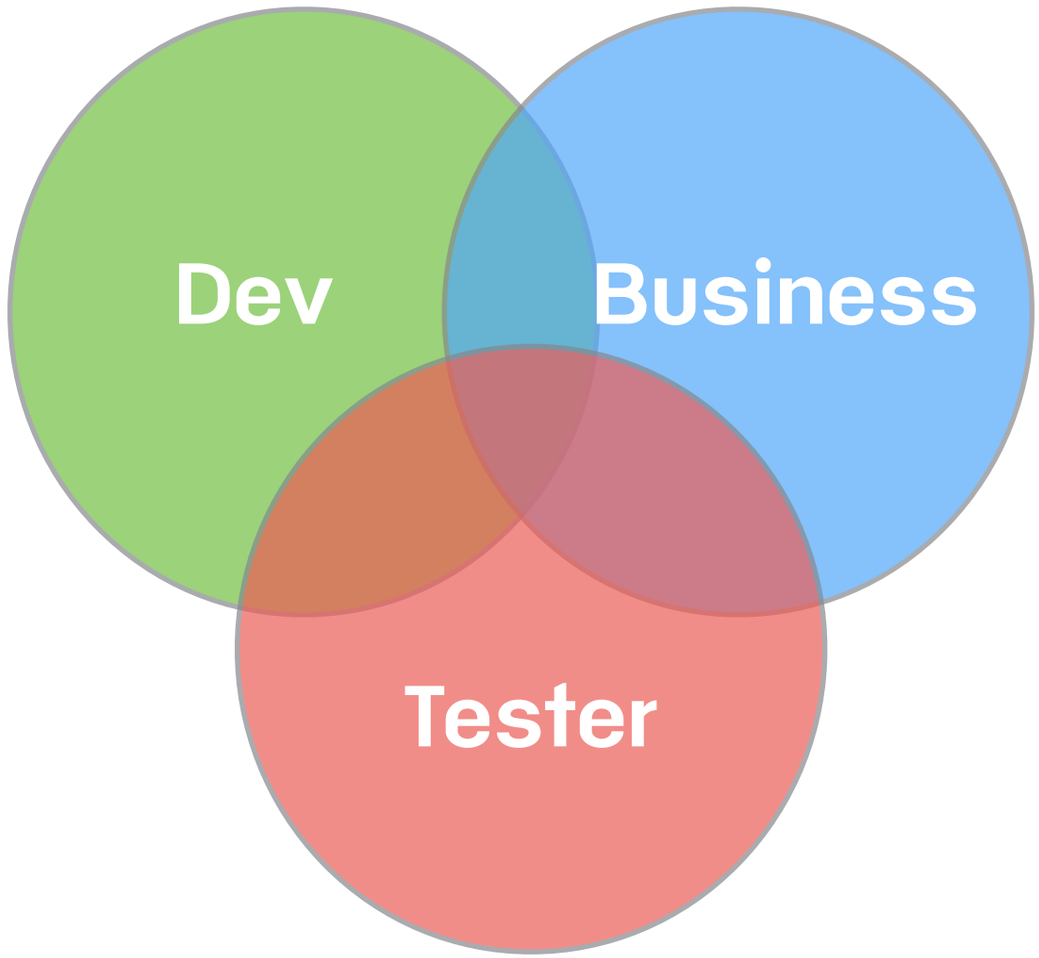
## Big communities at Github

# Concepts

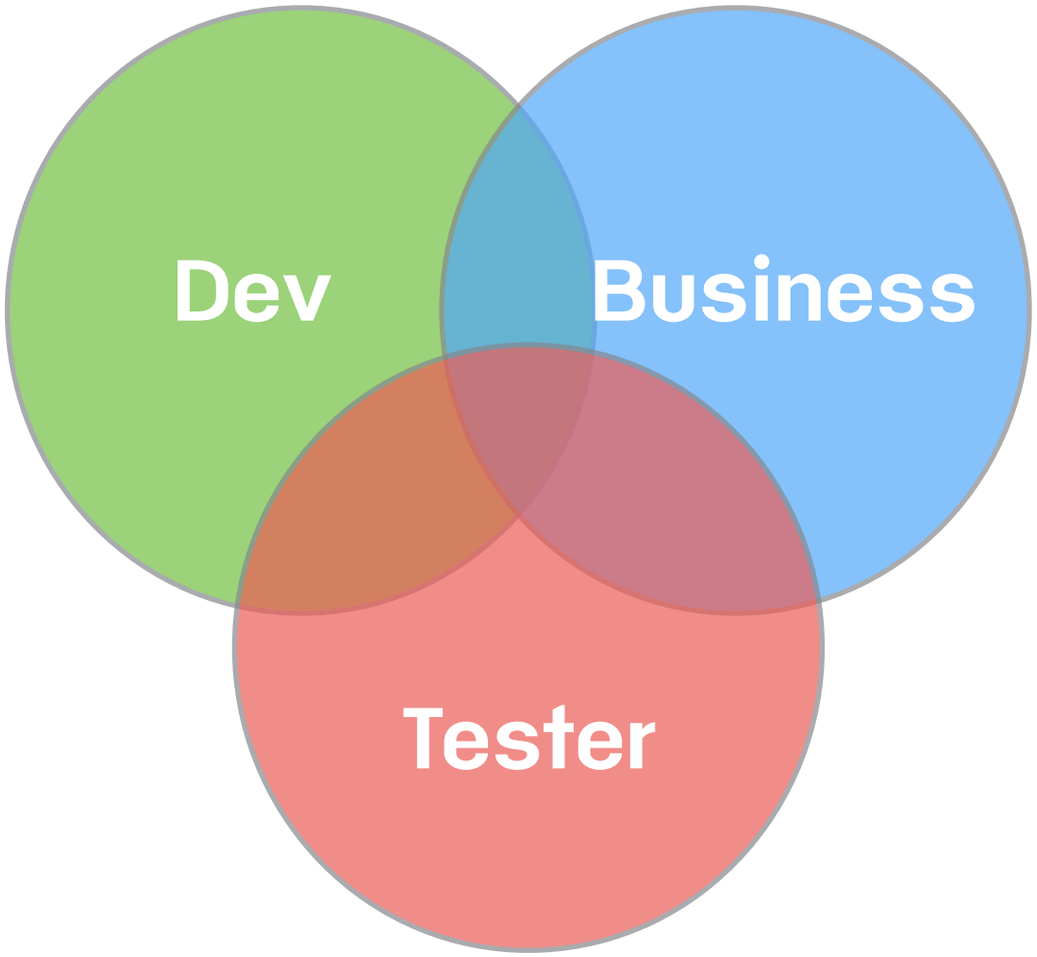
Acceptance Testing

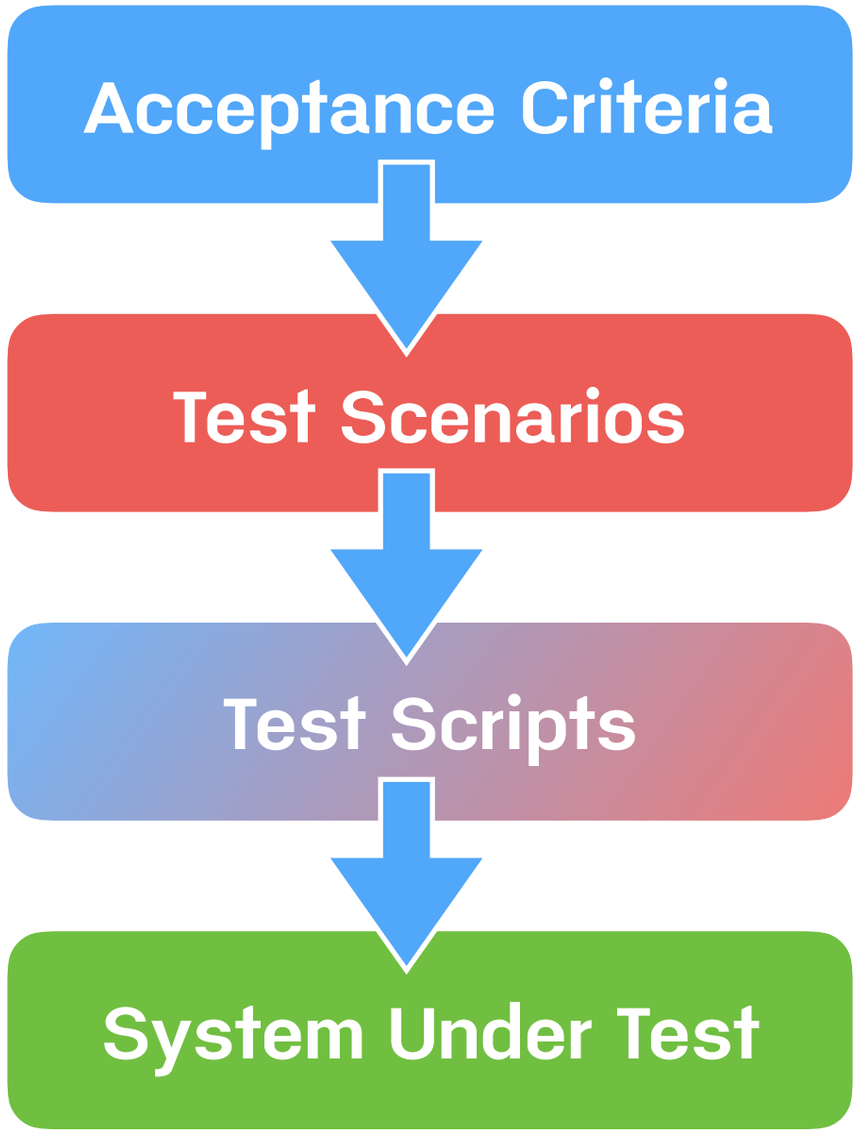
Keyword Driven Development

# Acceptance Testing

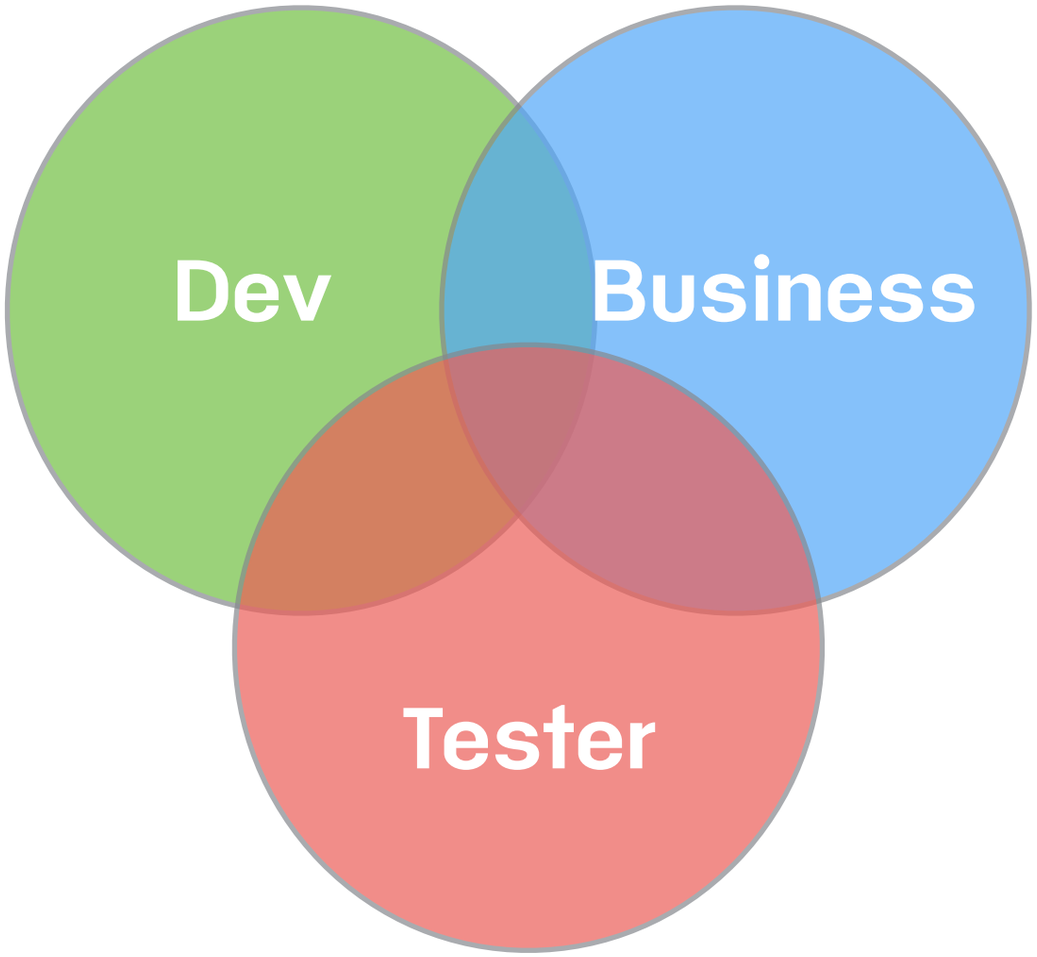


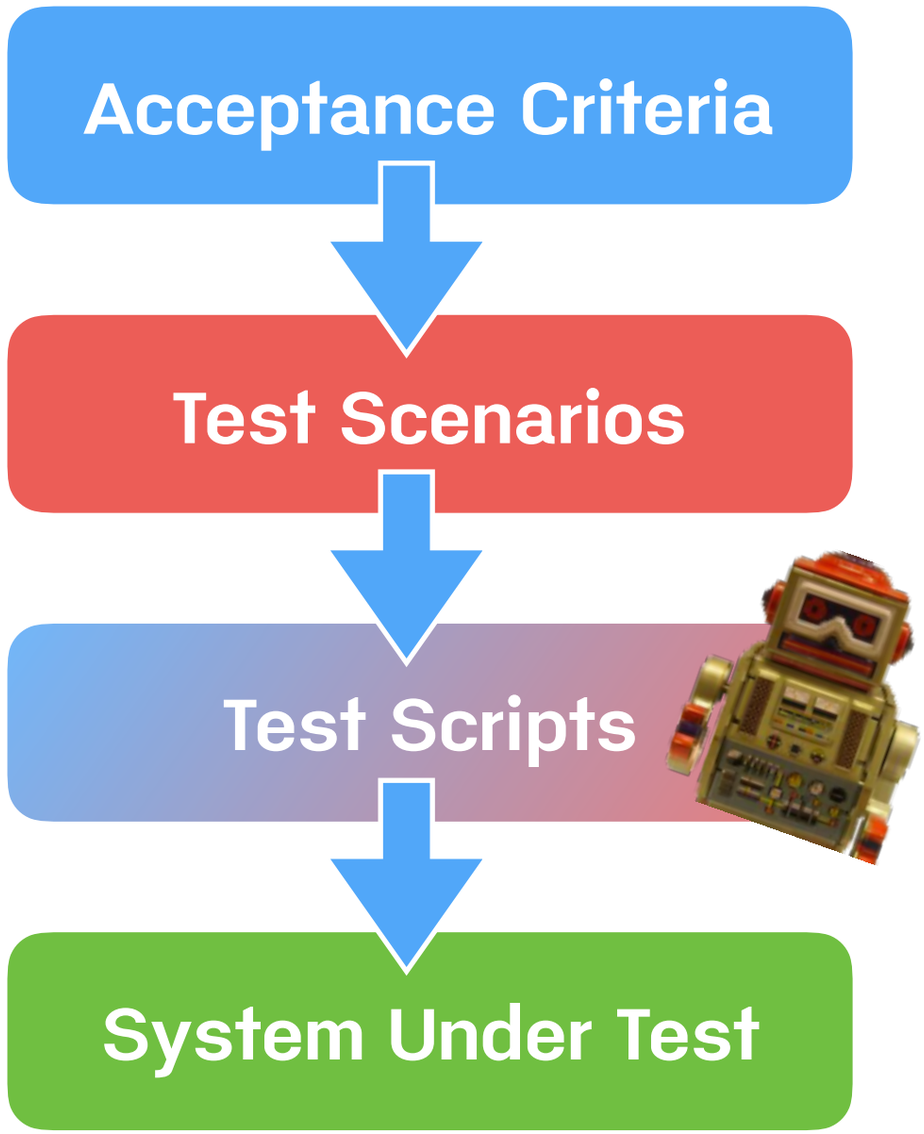
# Acceptance Testing



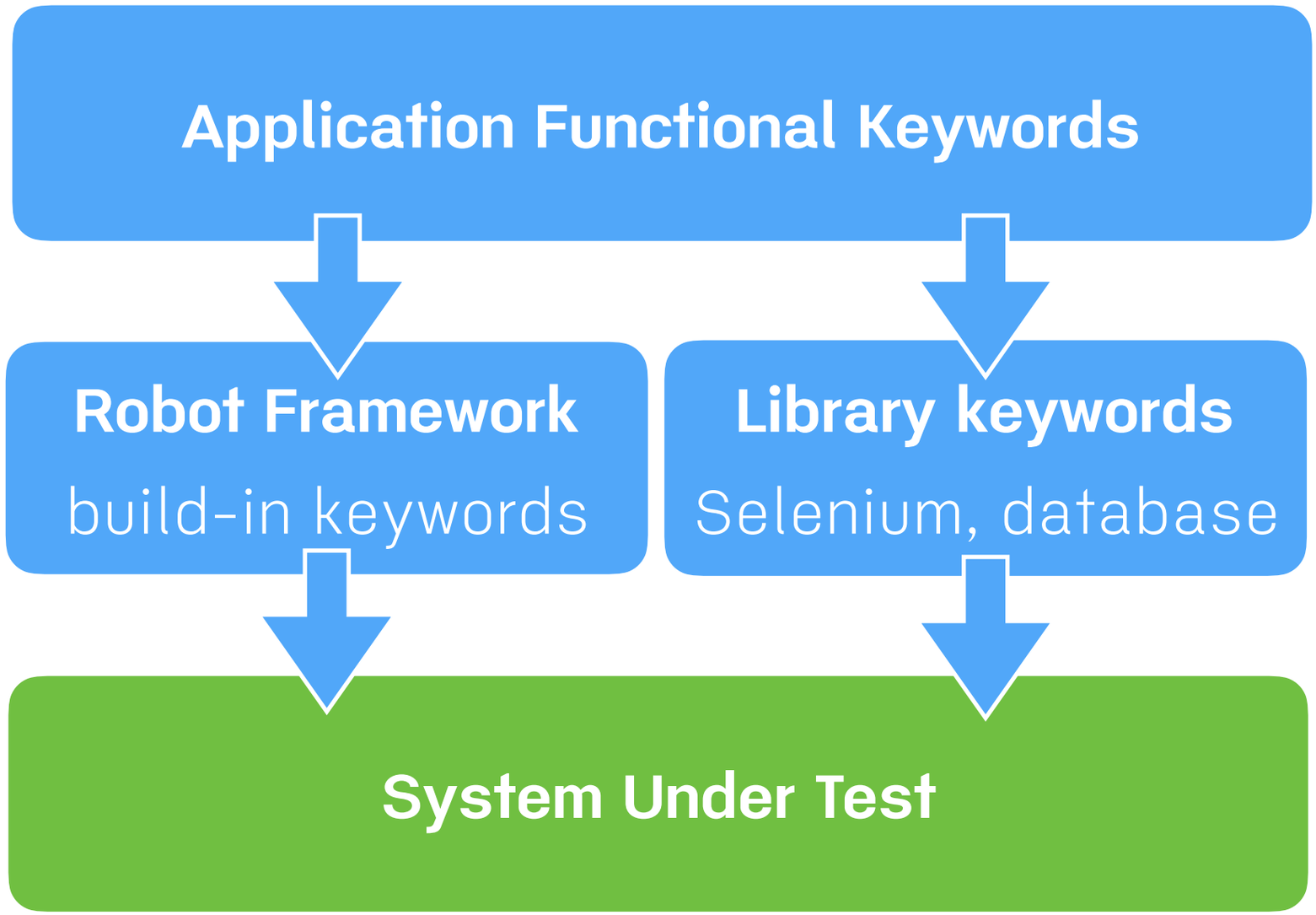



# Acceptance Testing



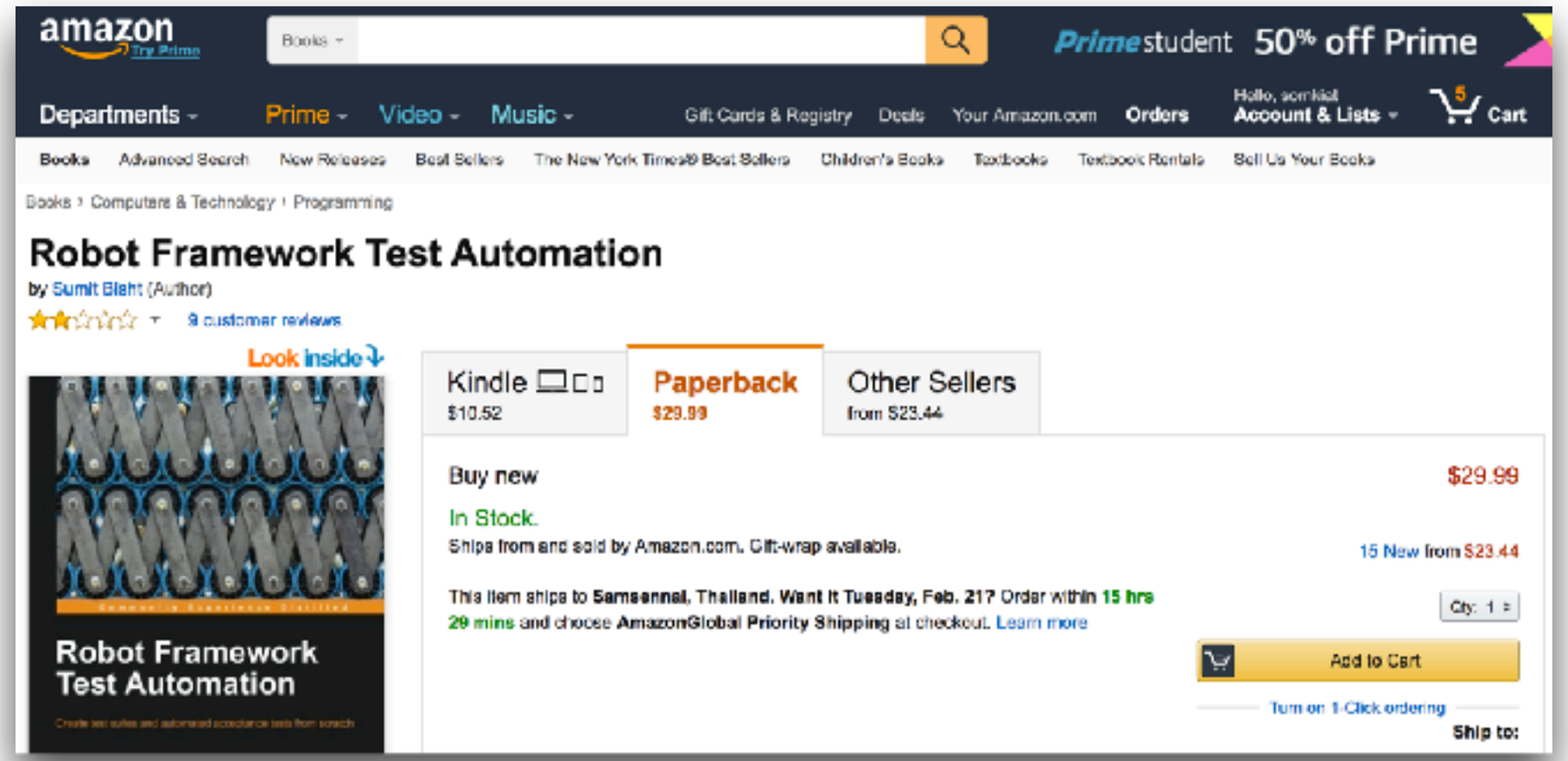
# Keyword Driven Development



# Keyword Driven Development

## Example scenario

## “Add product to cart”

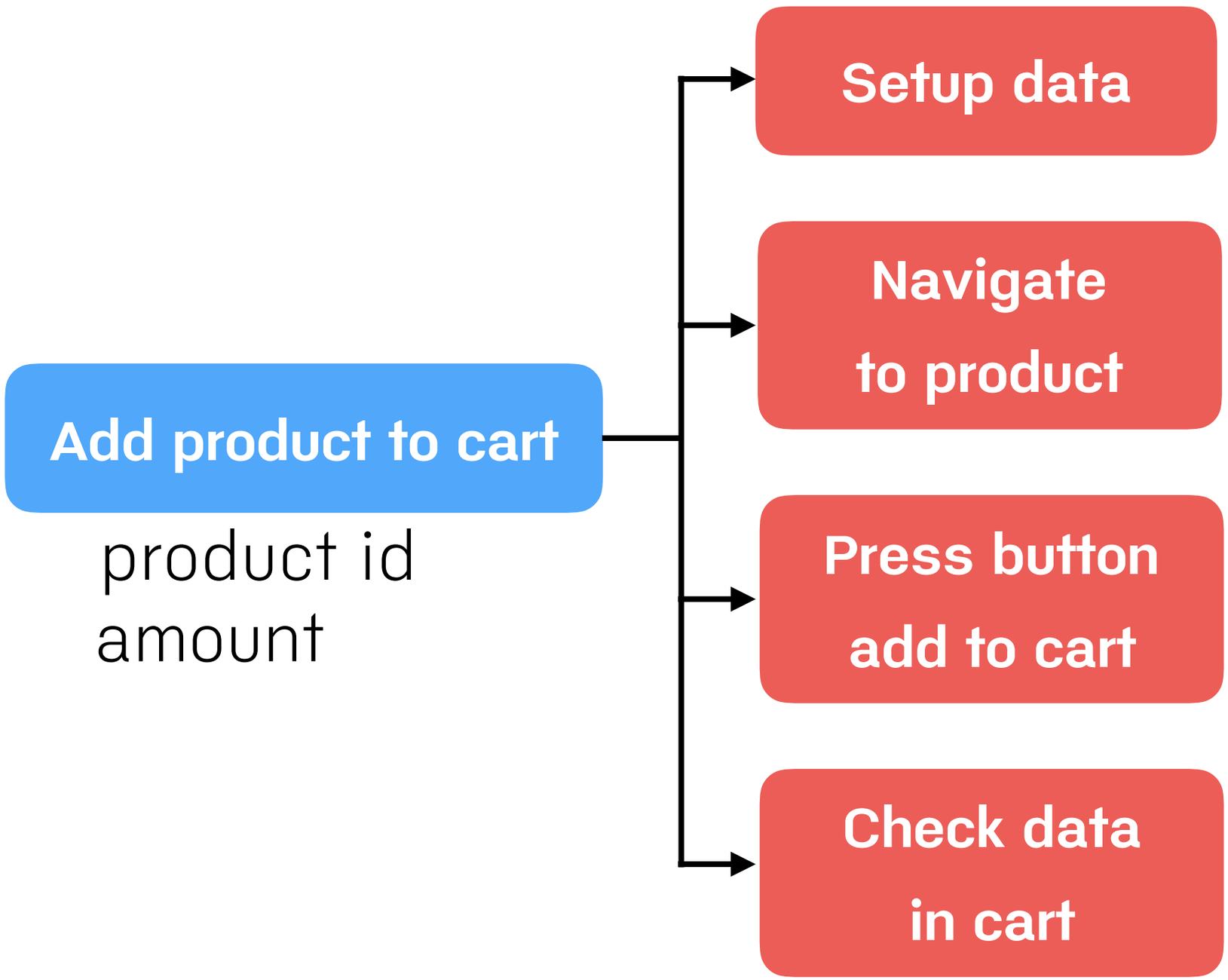


# Add product to cart

Add product to cart

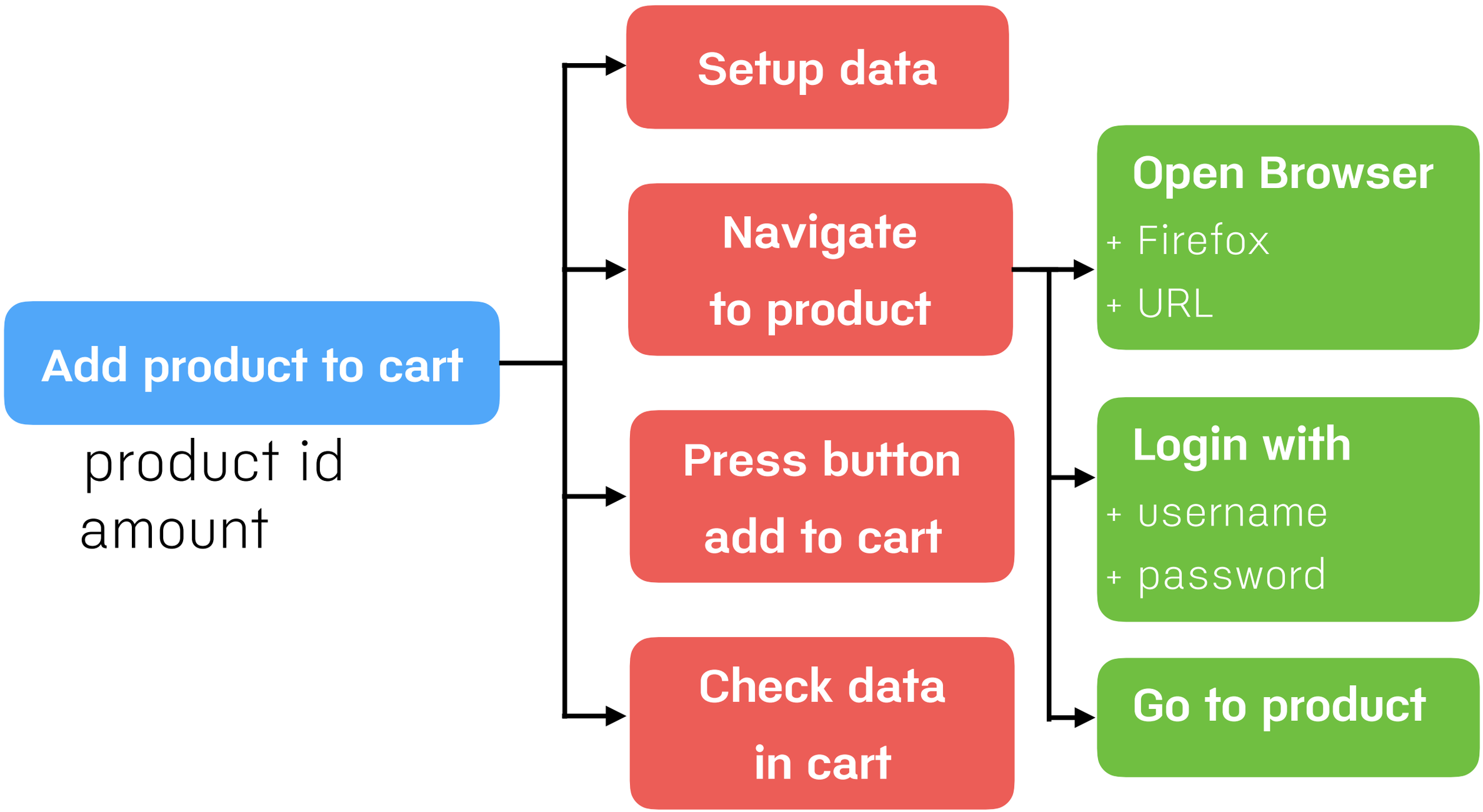
product id
amount

# Add product to cart

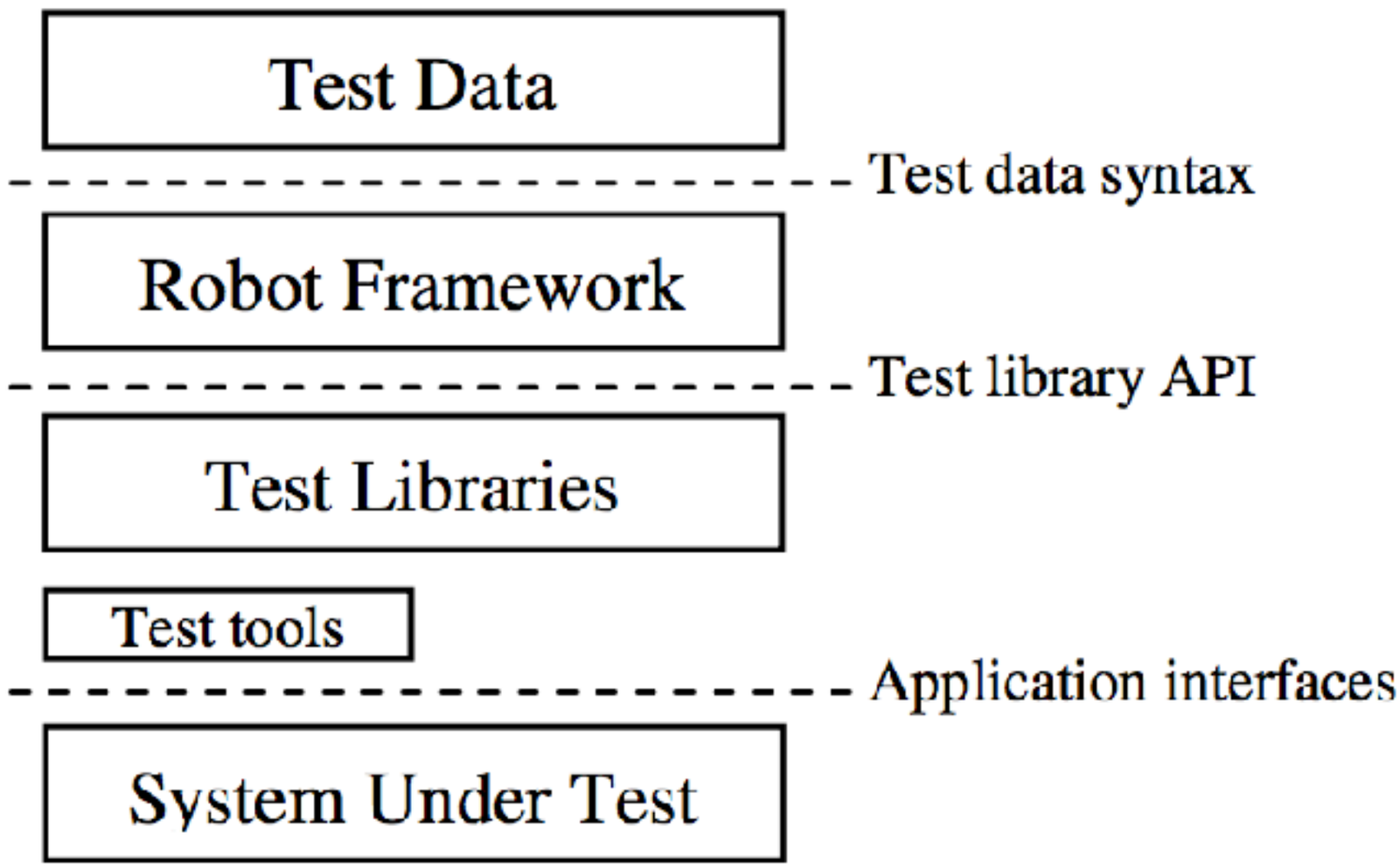



product id
amount

# Add product to cart



# High level architecture



# Robot Framework Development

# Installation

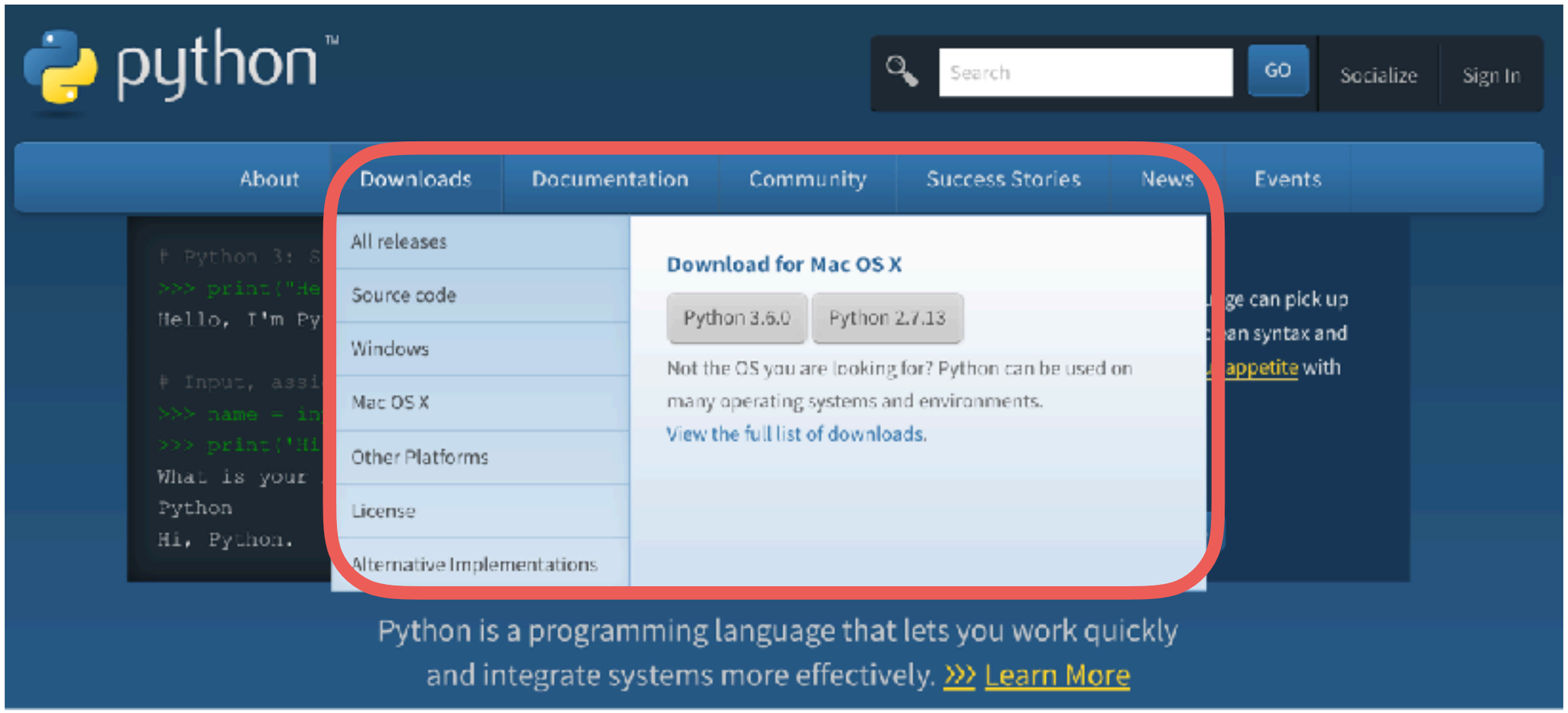
1. Python 2.7.13
2. PIP (Package manager for python)
3. Robot Framework
4. Robot Framework Library
5. IDE and Editor

# Install python and pip

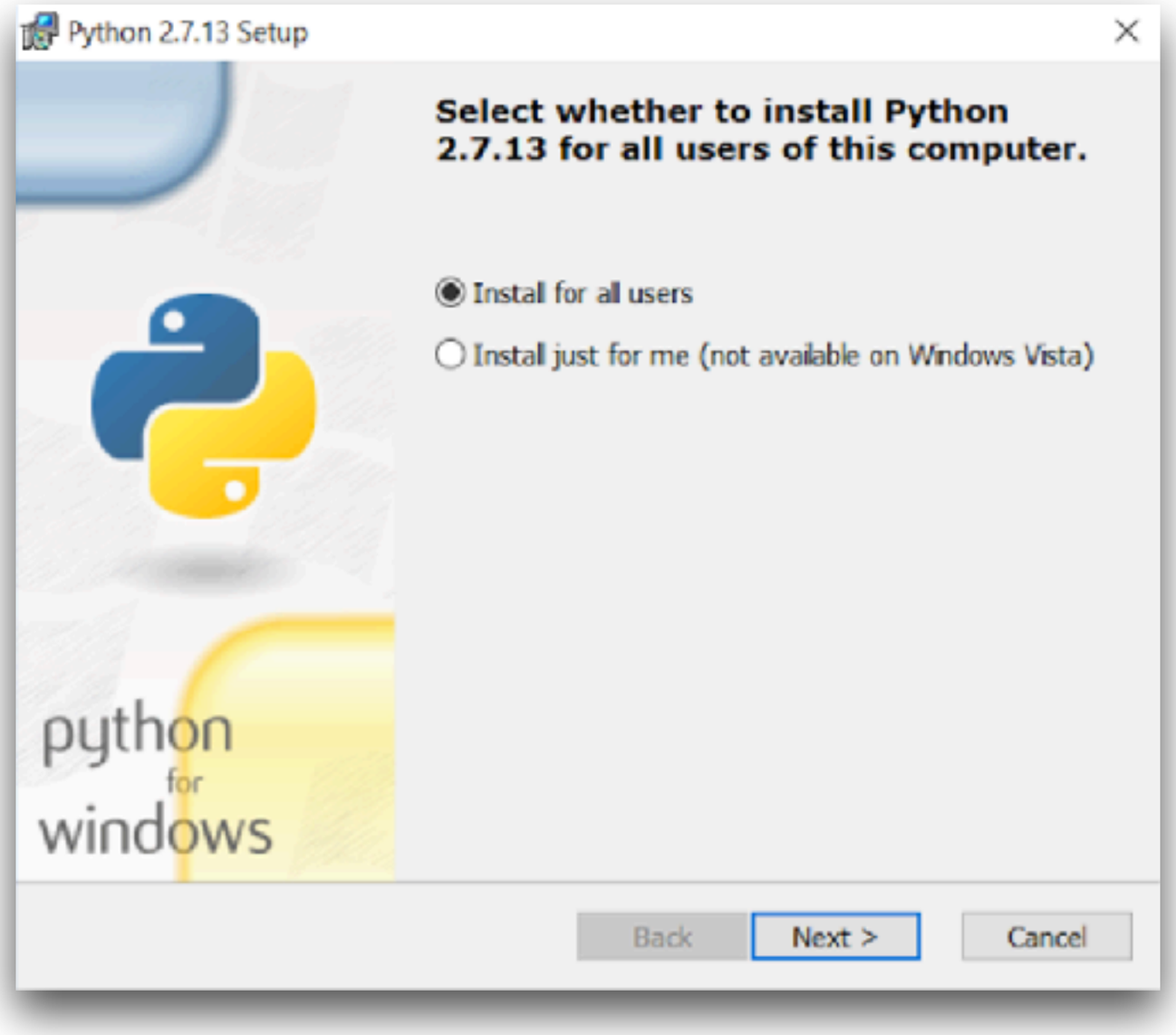
# For Windows

# Download Python 2.7.13

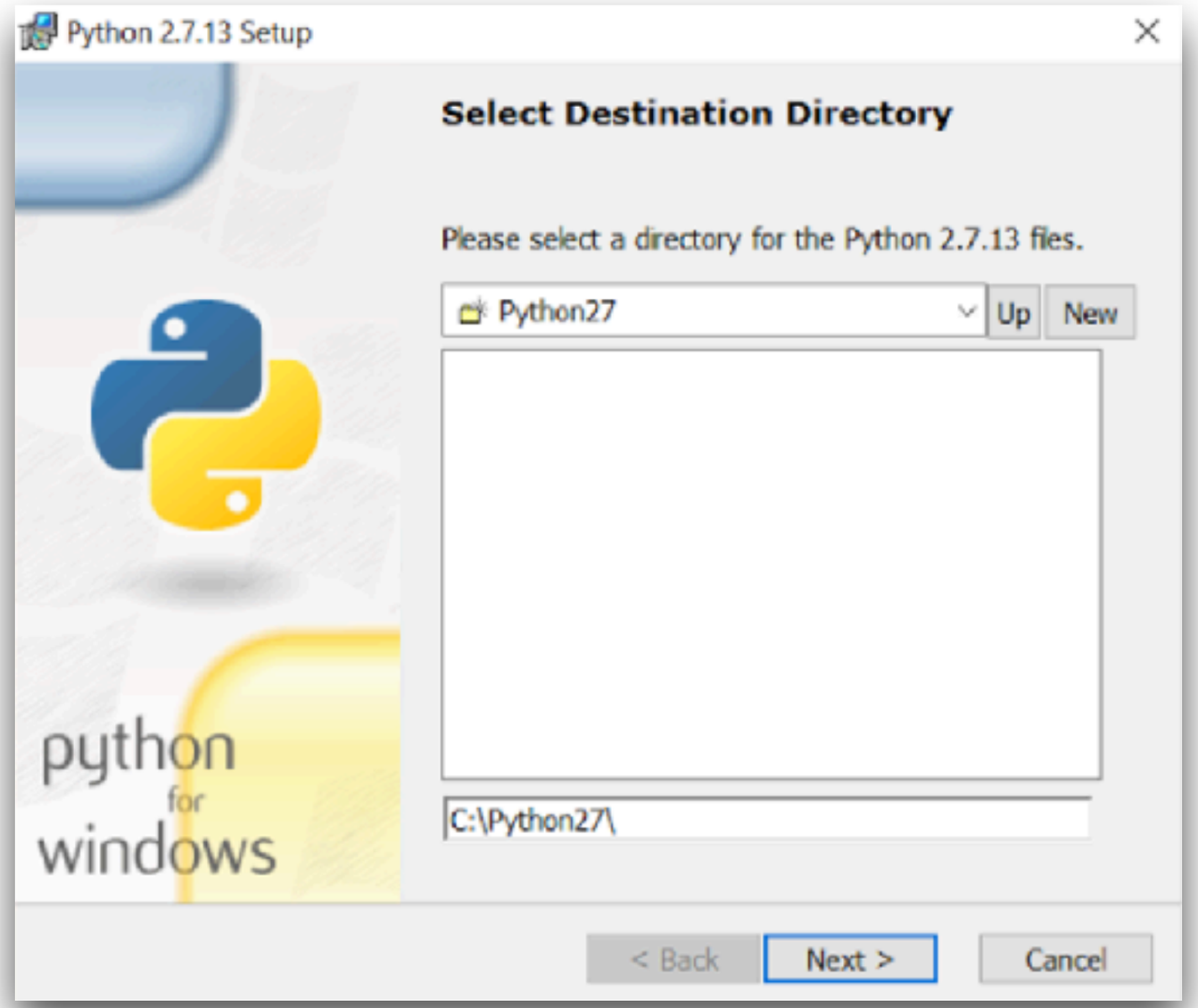
https://www.python.org/



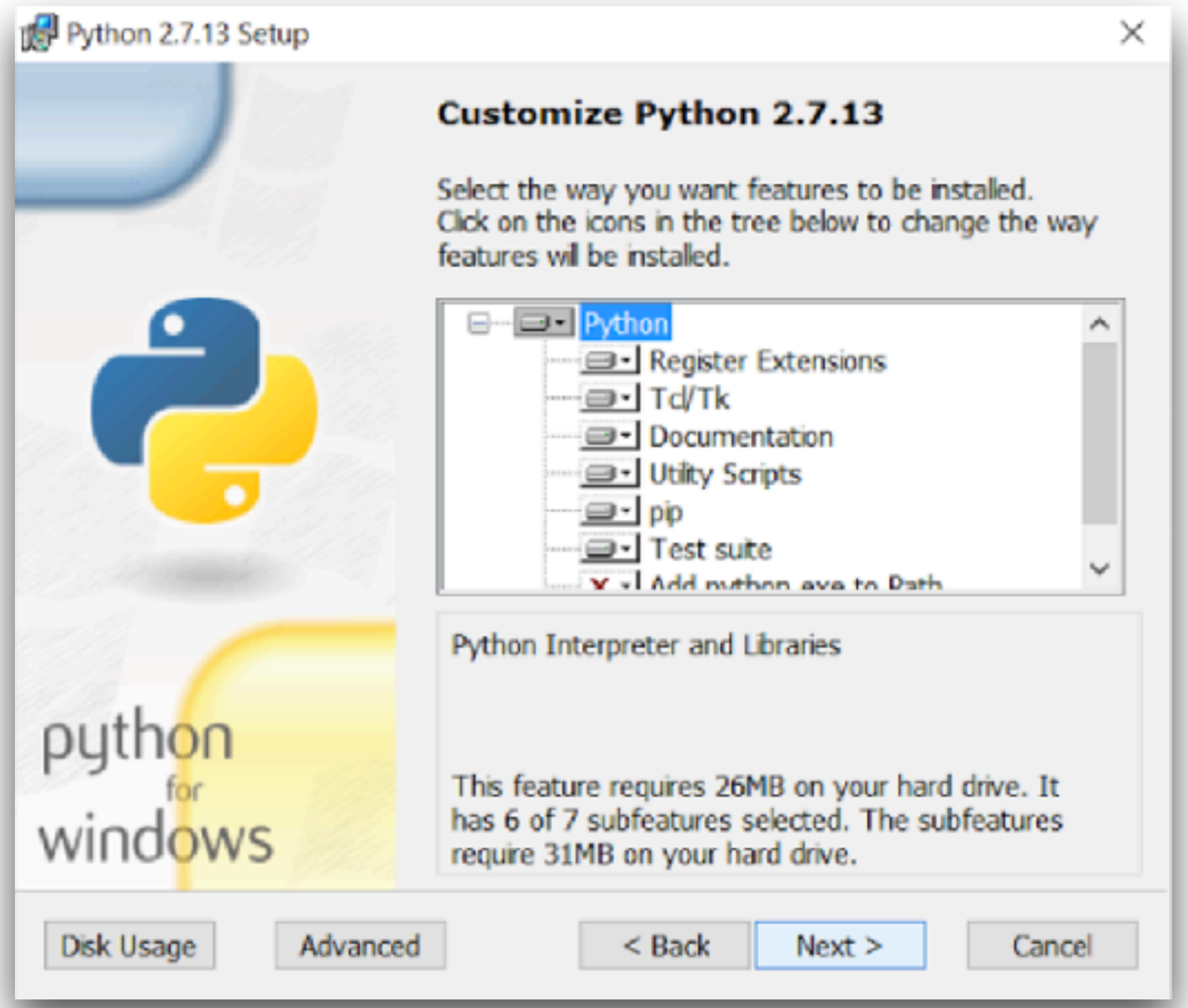
# Install Python 2.7.13



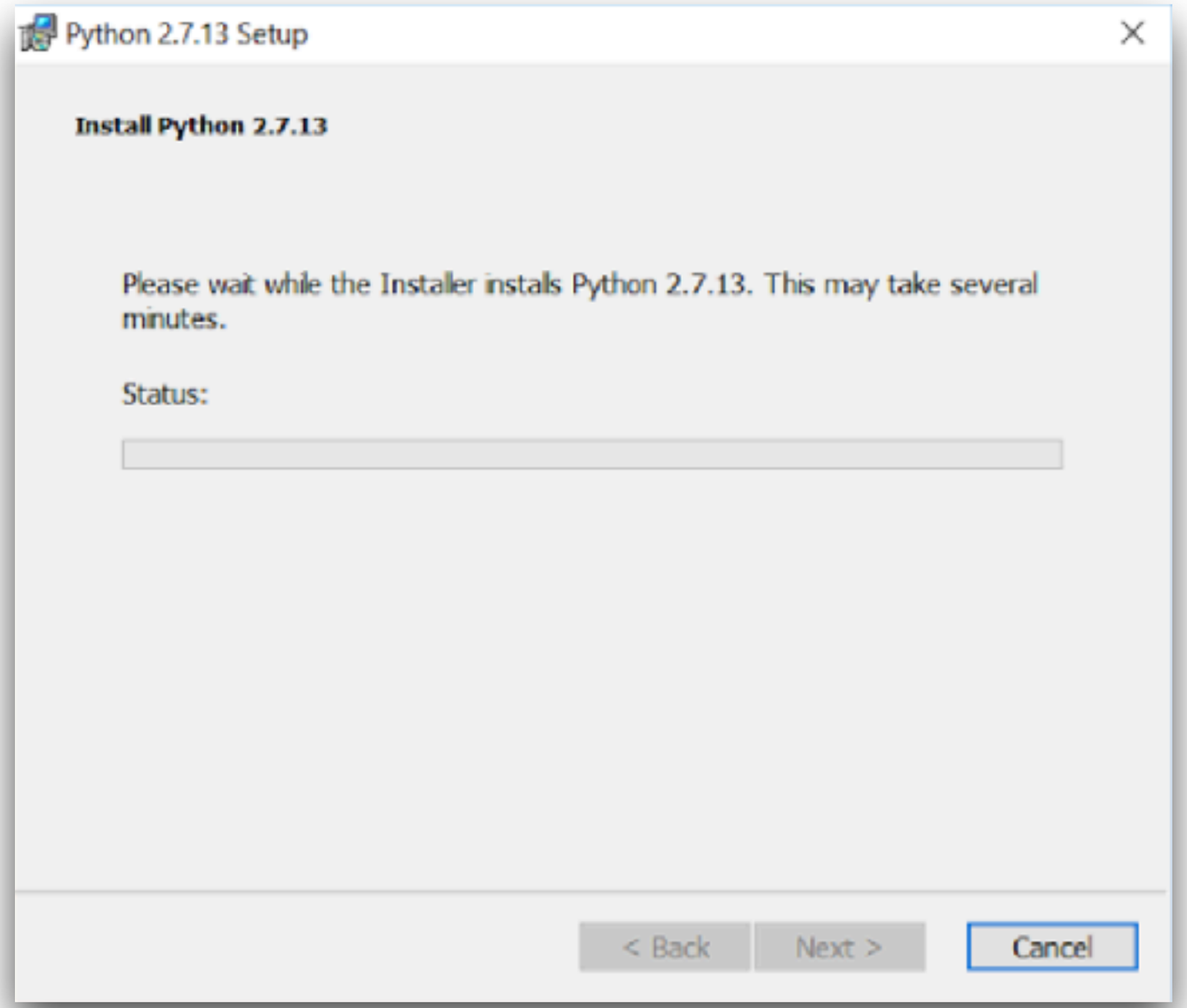
# Install Python 2.7.13



# Install Python 2.7.13



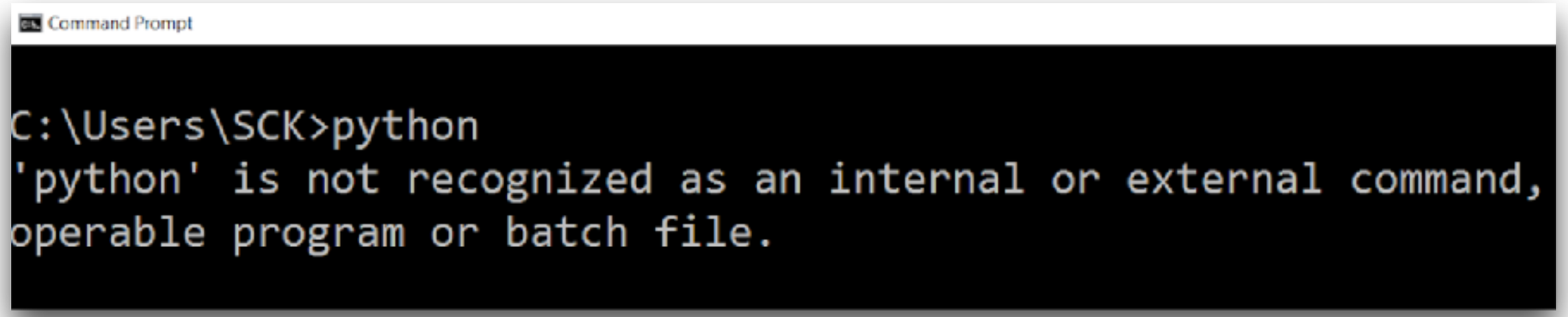
# Install Python 2.7.13



# Install Python 2.7.13

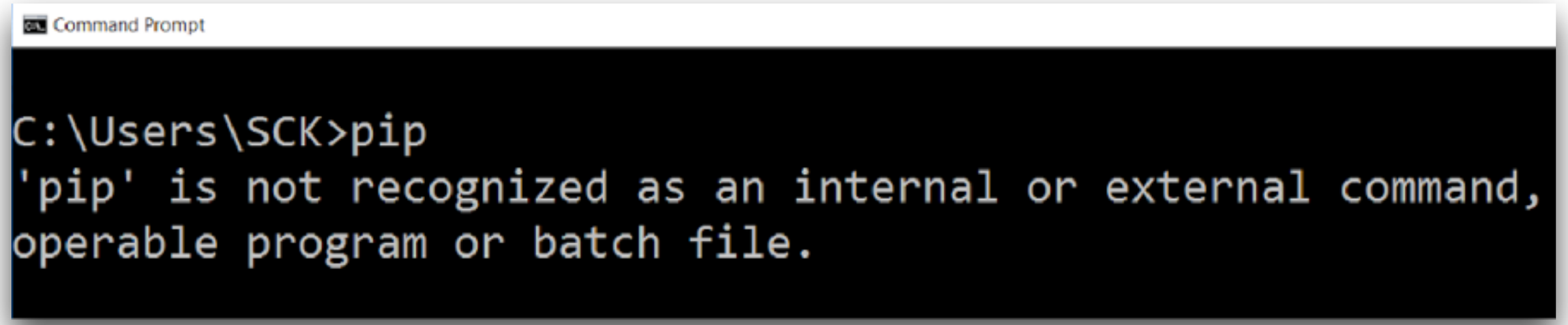
# Run python in command line

$python



# Run pip in command line

$pip



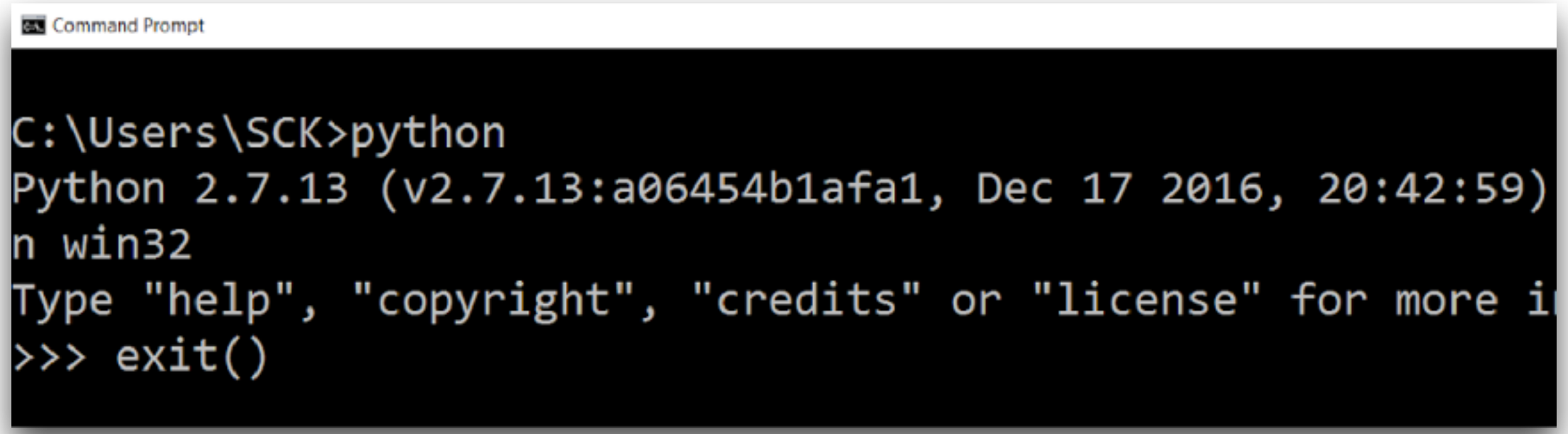
# Configuration in command line

$set **PYTHON_HOME**=c:\python27

$set **PATH**=.;%PYTHON_HOME%;%PYTHON_HOME%\Scripts;%PATH%

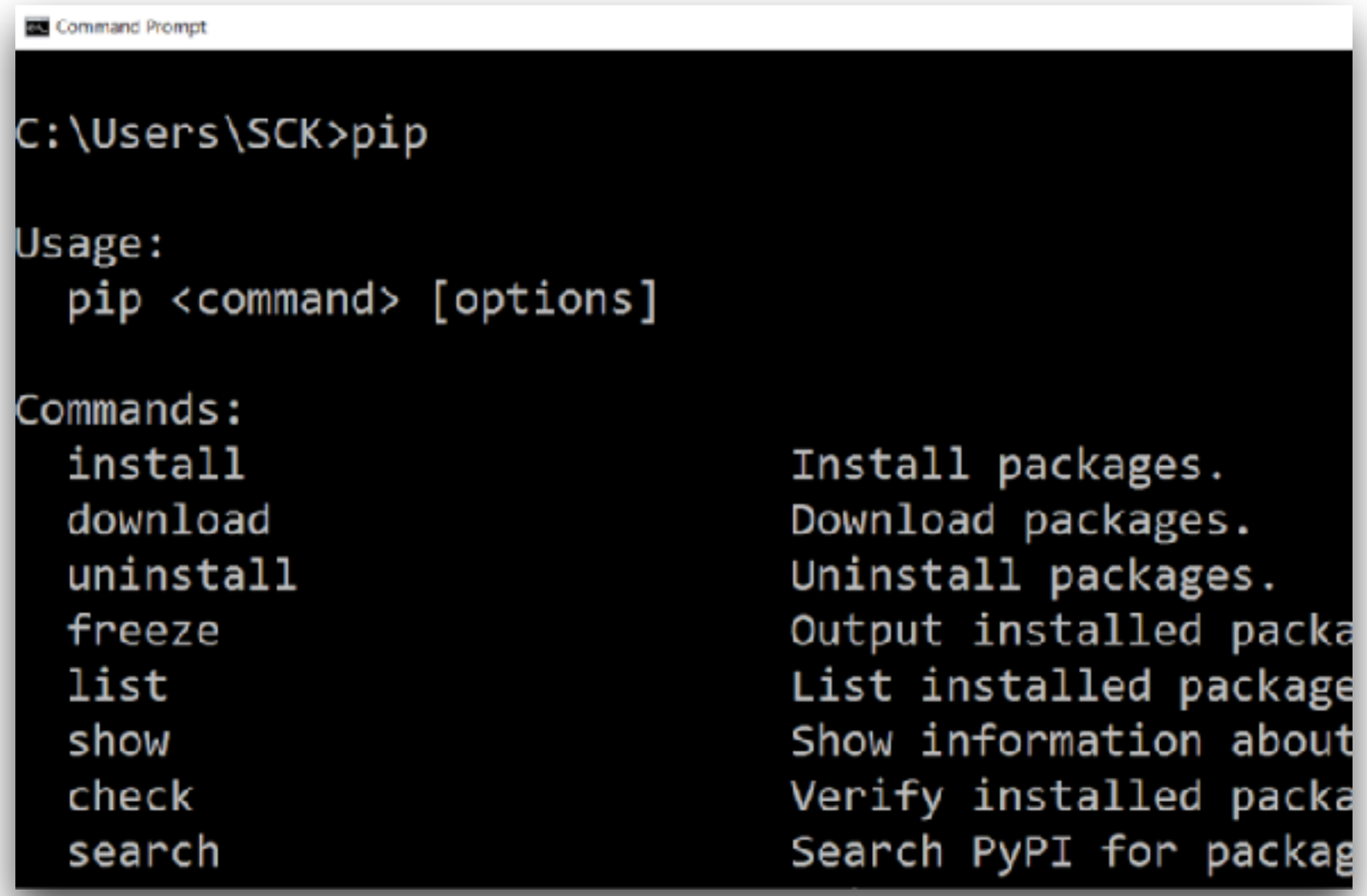
# Run python in command line

$python



# Run pip in command line

$pip



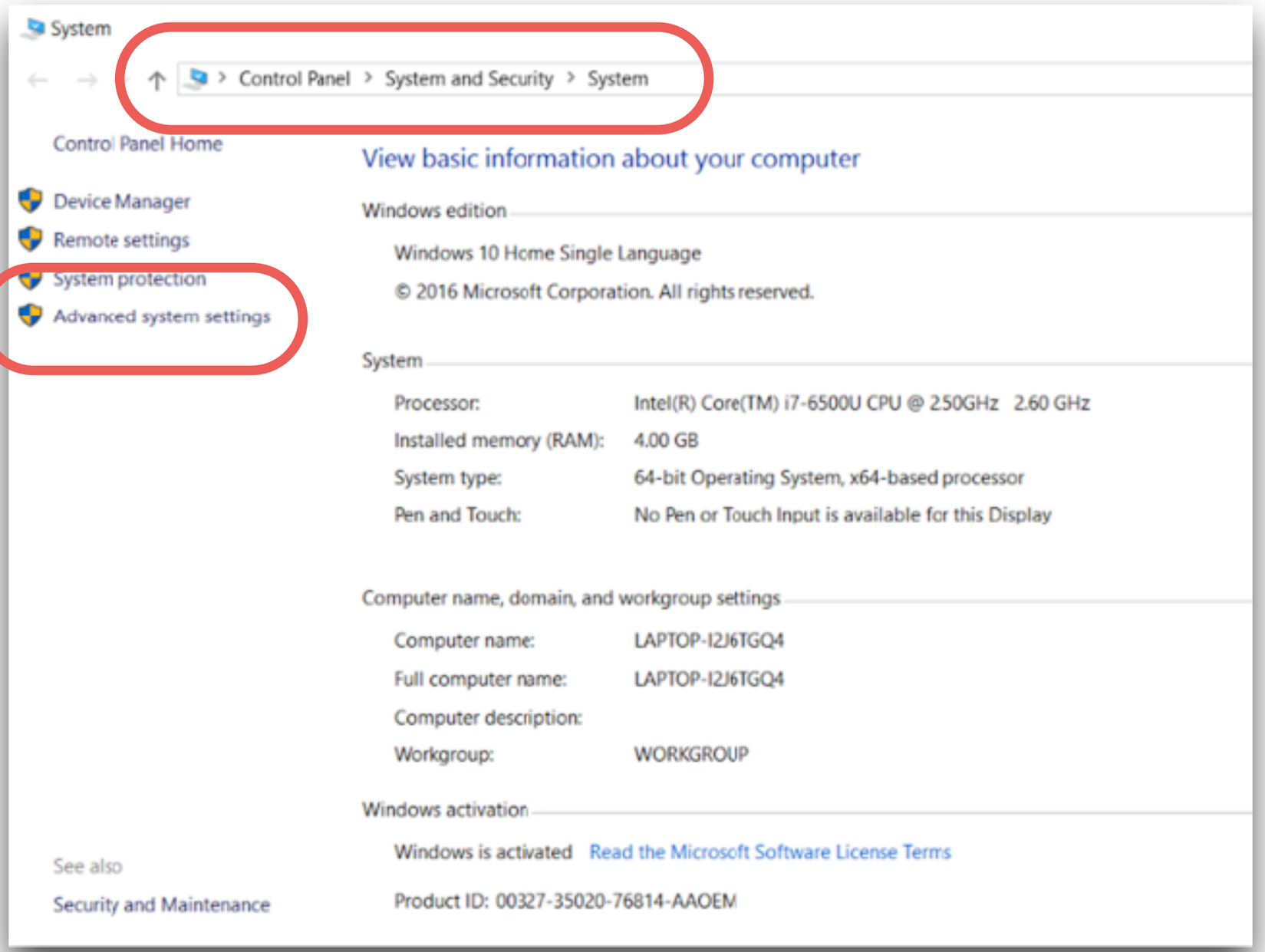
# Permanent configuration

# Configuration

Go to Control Panel -> System and Security -> System

Go to Advanced system settings

# Configuration



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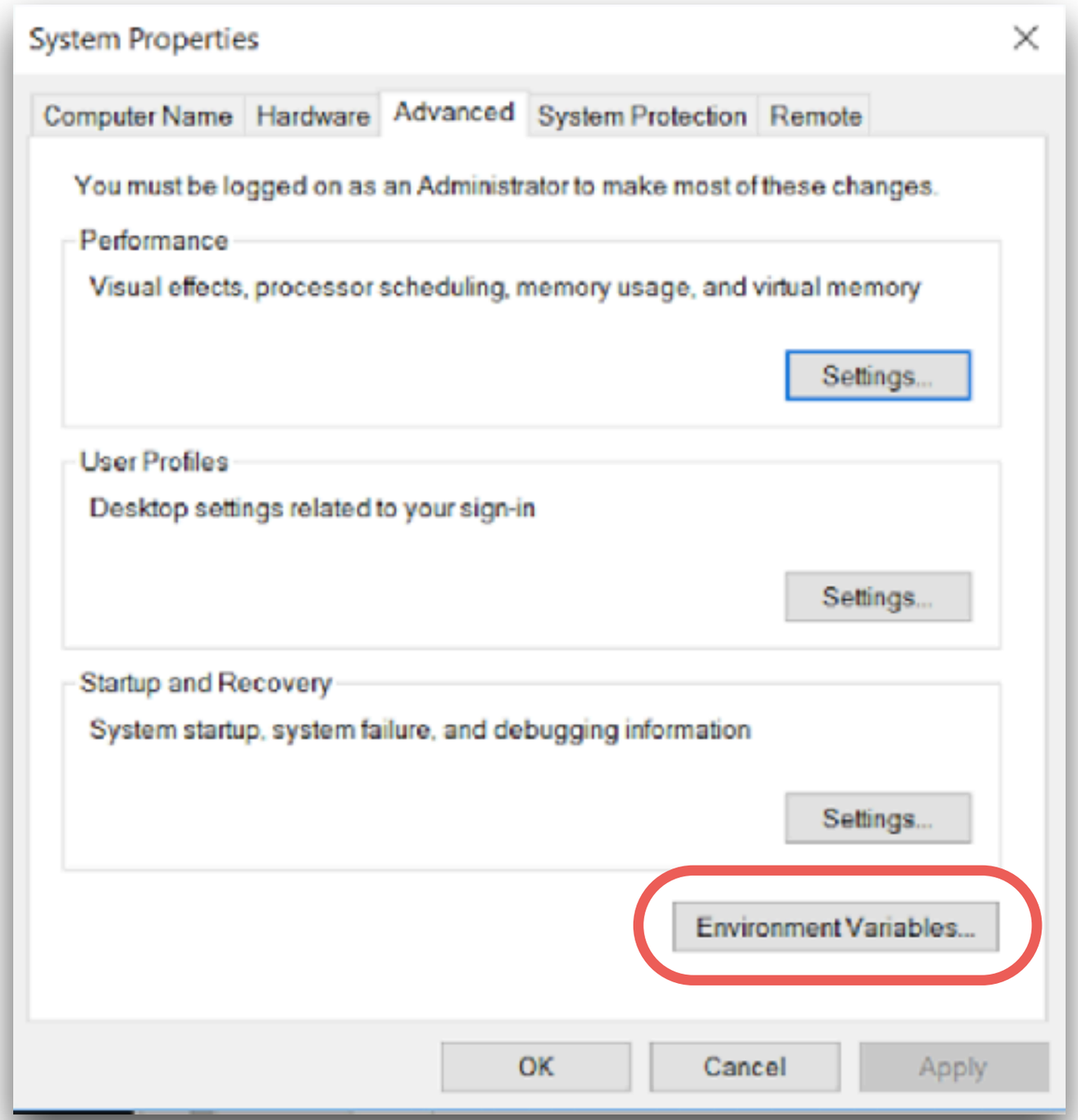
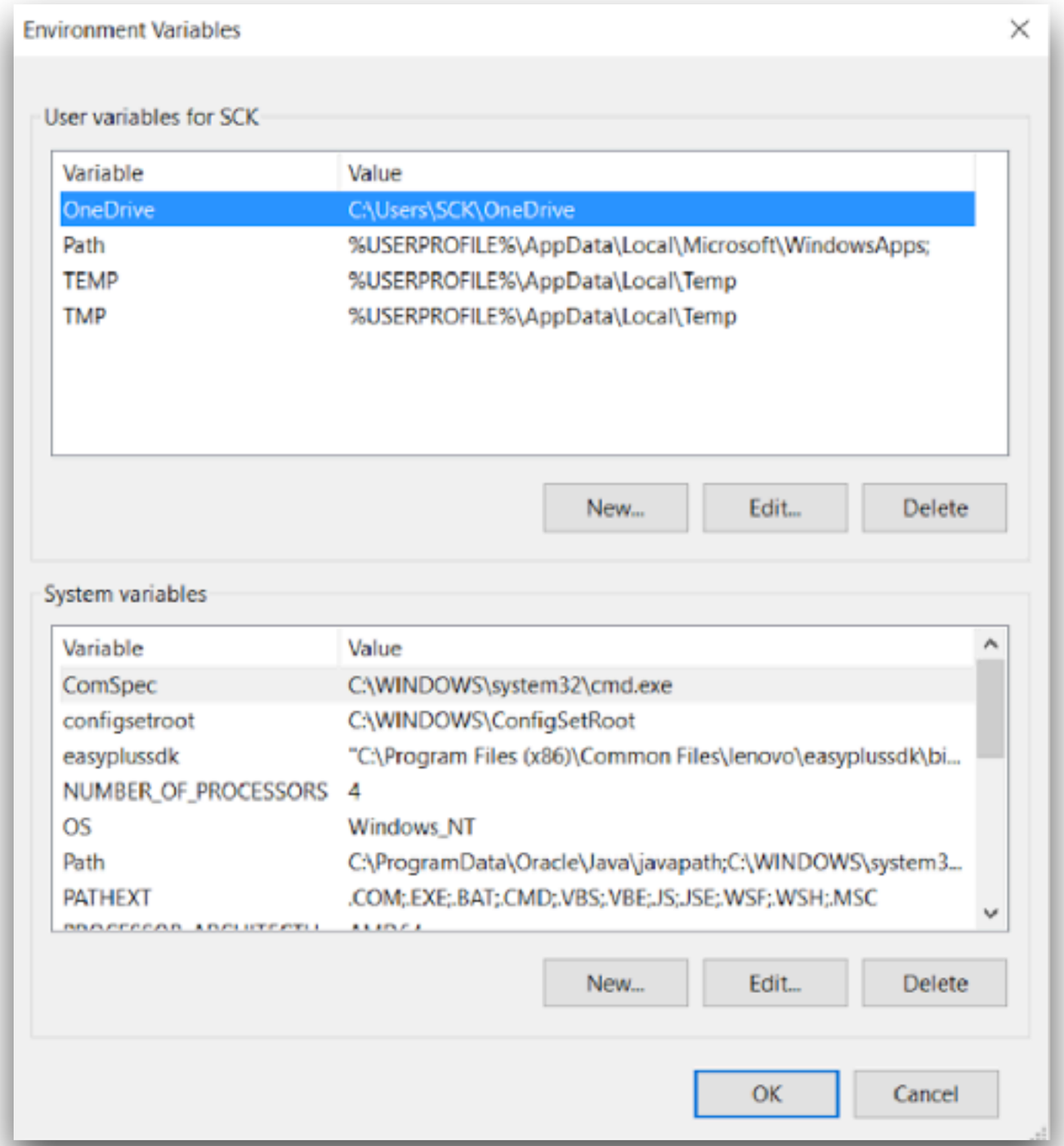
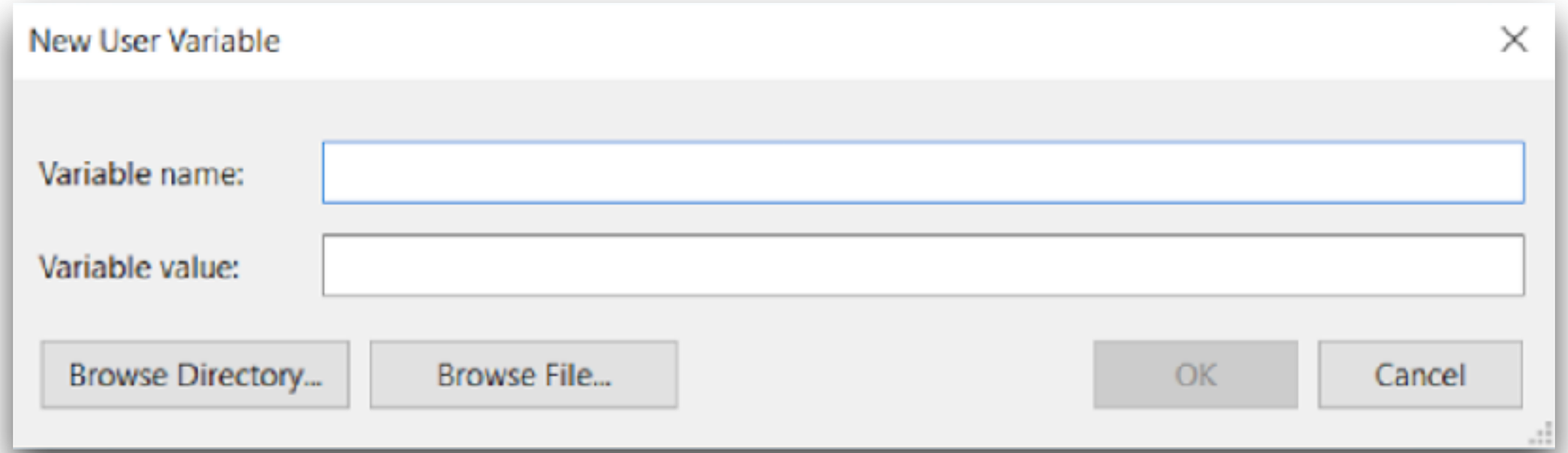


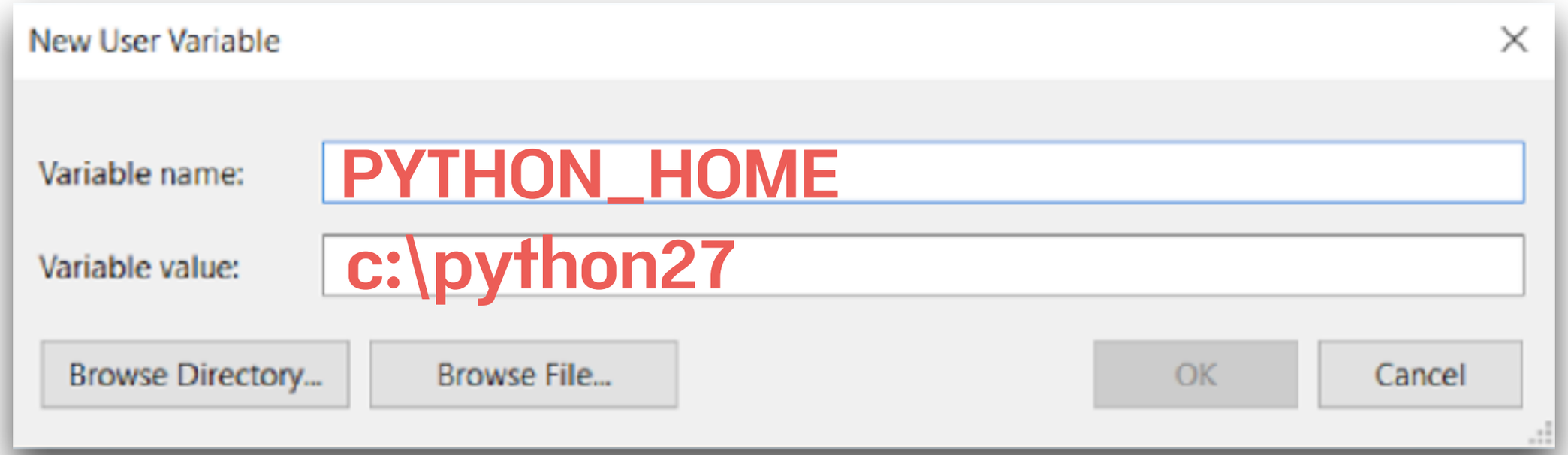
# Configuration



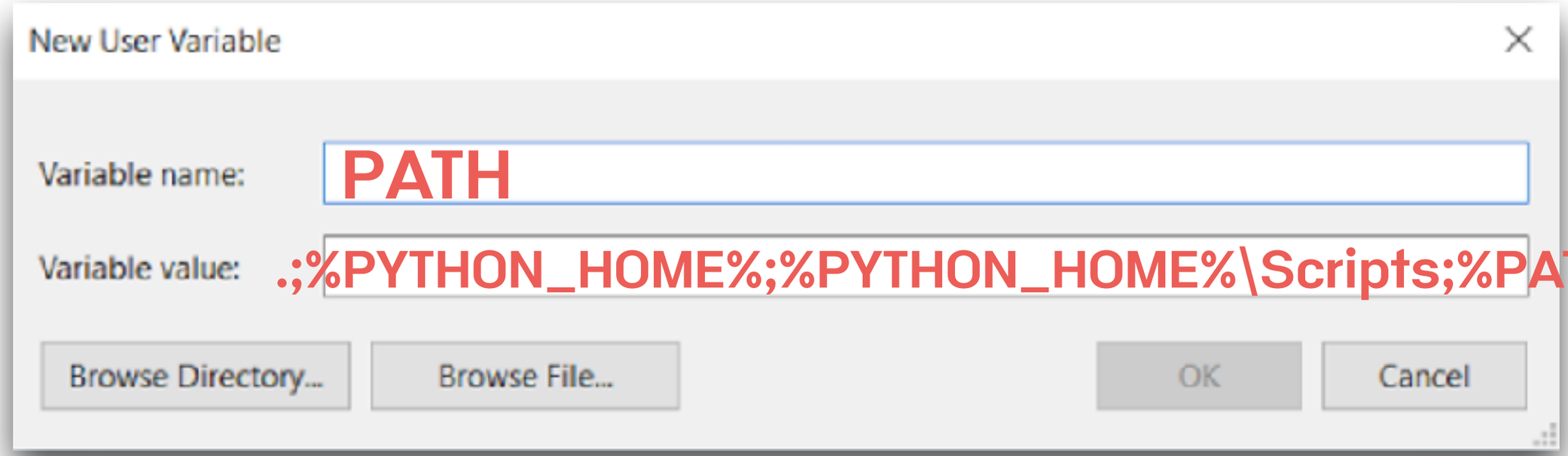
# Configuration



# Configuration PYTHON_HOME



# Configuration PATH



# For MacOS

# Install

$easy_install pip

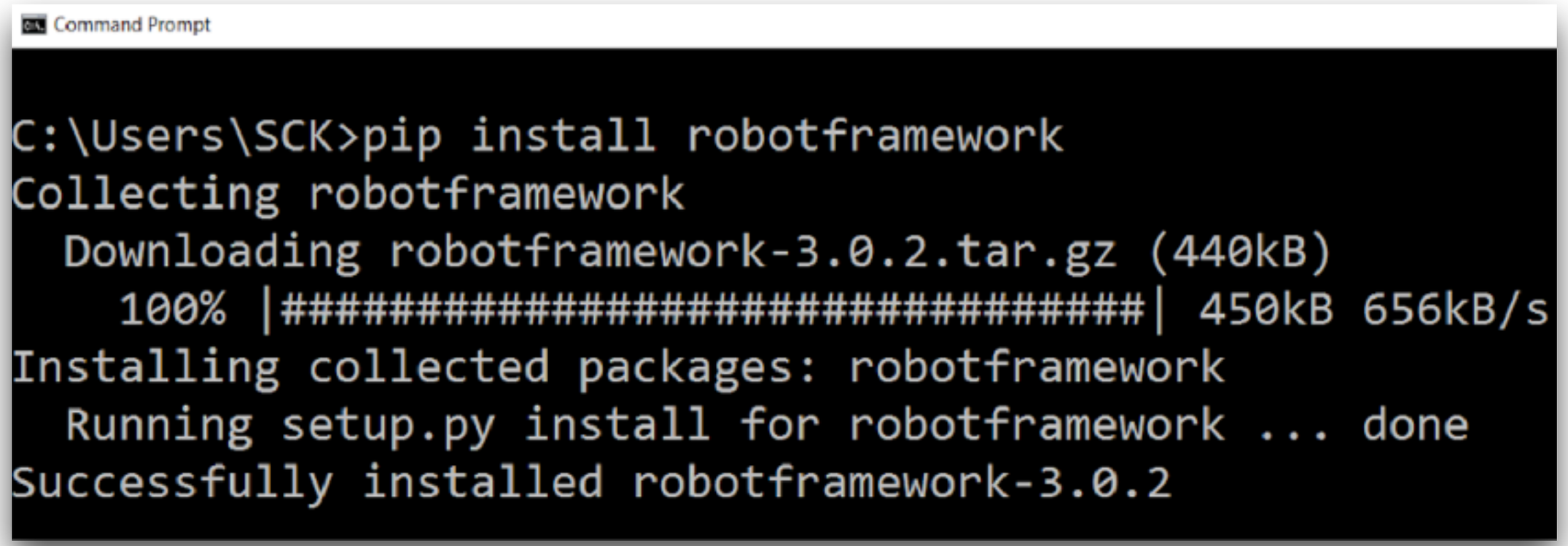
# Install

$brew install robot-framework

# Install Robot Framework

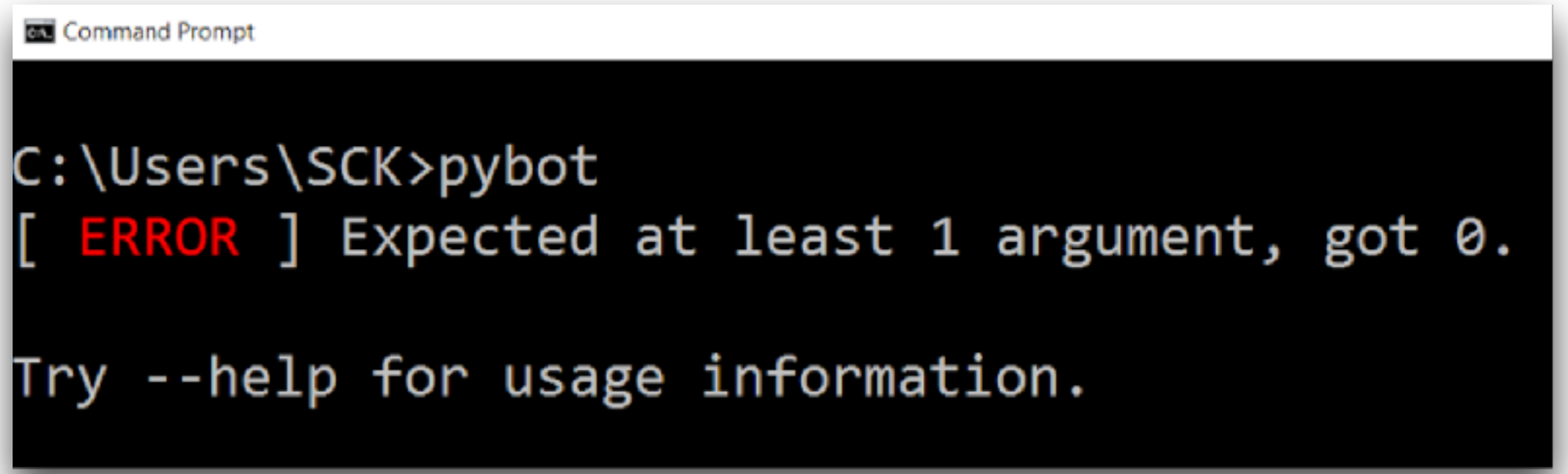
# Install Robot Framework

$pip install robotframework



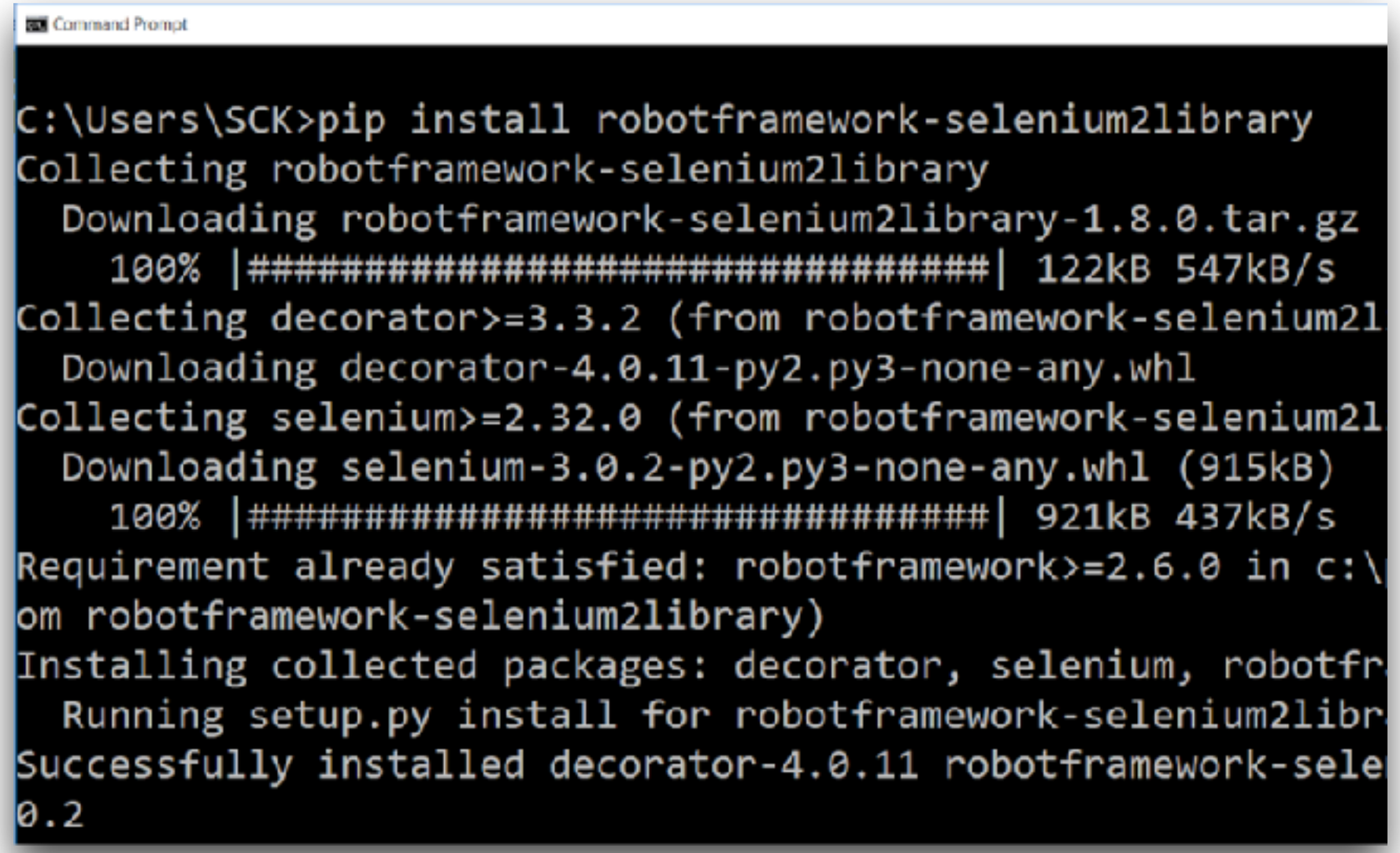
# Check Robot Framework

$pybot



# Install Robot Framework Library

$pip install robotframework-selenium2library



# Install IDE and Editor

# IDE and Editor


# Let’s start to coding