

# Network Programming: Creating your own chat client

## Contact Info

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## 1 Overview

Network programming is a great specialty to develop to better understand how to communicate between computers (or services). While most applications are primarily focused on storing data, we use many services that heavily depend on networking, such as chat services. This course is an introduction to network programming using Python or .NET. We will learn about client/server architecture, and eventually build a chat client for a server built specifically for this course.

## 2 Duration

This is a 6-hour course.

## 3 Objectives

- Understand sockets and ports
- Learn the basics of socket programming
- Understand the basics of client/server architecture
- Build a basic terminal-based chat client

## 4 Key Takeaways

After this course, you will be able to:

- Know how to create sockets (Unix and web)
- Know how to build a basic server
- Use Python/.NET to build a chat client

## 5 Prerequisites

- Requires a working knowledge of Python, C#, or another programming language

## **6 Required Materials**

For this, you will need the following:

- Workbook (provided)
- Laptop with Docker

## **7 Schedule/Topics Discussed**

- Introduction to networking
- Types of network sockets
- Basics of client-server interaction
- Developing a client-server application in Python or C#