**Network Documentation: Day 02 Lab – Device Connectivity**

**Objective**

Connect the network devices together according to the labels.

Use the appropriate type of cable.

For practice, assume that Auto MDI-X is disabled, or not supported on the devices.

NOTE: Packet Tracer doesn't differentiate between single-mode

and multimode fiber, but think about which one is appropriate when you

use a fiber connection.

**Network Topology Overview**

The following devices are included in the network setup:

* **Routers:** R1, R2, R3, R4
* **Switches:** SW1, SW2, SW3, SW4, SW5, SW6, SW7, SW8
* **Computers:** PC1, PC2, PC3
* **Server:** SRV1

**Cabling Specifications**

The types of cables used for connections are:

1. **Unshielded Twisted Pair (UTP) – Straight-through cable**
2. **Unshielded Twisted Pair (UTP) – Crossover cable**
3. **Fiber Optic Cable – Single-mode**
4. **Fiber Optic Cable – Multimode**

**Device Connections**

Below is a detailed list of device connections, port assignments, and cable types:

1. **PC1 to SW1**
   * **Cable:** UTP Straight-through
   * **Ports:** PC1 (Fa0) ↔ SW1 (Fa0/1)
2. **PC2 to SW2**
   * **Cable:** UTP Straight-through
   * **Ports:** PC2 (Fa0) ↔ SW2 (Fa0/1)
3. **PC3 to SW7**
   * **Cable:** UTP Straight-through
   * **Ports:** PC3 (Fa0) ↔ SW7 (Fa0/1)
4. **SRV1 to SW8**
   * **Cable:** UTP Straight-through
   * **Ports:** SRV1 (Fa0) ↔ SW8 (Fa0/1)
5. **SW3 to SW1**
   * **Cable:** UTP Crossover
   * **Ports:** SW3 (Fa1/1) ↔ SW1 (Fa0/1)
6. **SW4 to SW2**
   * **Cable:** UTP Crossover
   * **Ports:** SW4 (Fa1/1) ↔ SW2 (Fa0/1)
7. **SW7 to SW5**
   * **Cable:** UTP Crossover
   * **Ports:** SW7 (Fa1/1) ↔ SW5 (Fa0/1)
8. **SW8 to SW6**
   * **Cable:** UTP Crossover
   * **Ports:** SW8 (Fa1/1) ↔ SW6 (Fa0/1)
9. **SW1 to SW2**
   * **Cable:** UTP Crossover
   * **Ports:** SW1 (Fa2/1) ↔ SW2 (Fa2/1)
10. **SW5 to SW6**
    * **Cable:** UTP Crossover
    * **Ports:** SW5 (Fa2/1) ↔ SW6 (Fa2/1)
11. **SW1 to R2**
    * **Cable:** UTP Straight-through
    * **Ports:** SW1 (Fa1/1) ↔ R2 (Fa0/0)
12. **SW2 to R2**
    * **Cable:** UTP Straight-through
    * **Ports:** SW2 (Fa1/1) ↔ R2 (Fa1/0)
13. **SW5 to R4**
    * **Cable:** UTP Straight-through
    * **Ports:** SW5 (Fa1/1) ↔ R4 (Fa0/0)
14. **SW6 to R4**
    * **Cable:** UTP Straight-through
    * **Ports:** SW6 (Fa1/1) ↔ R4 (Fa1/0)
15. **R2 to R1** (Distance: 50 meters)
    * **Cable:** UTP Straight-through
    * **Ports:** R2 (Fa2/0) ↔ R1 (Fa0/0)
16. **R4 to R3** (Distance: 250 meters)
    * **Cable:** Multimode Fiber Optic
    * **Ports:** R4 (Gig3/0) ↔ R3 (Gig2/0)
17. **R1 to R3** (Distance: 3 kilometers)
    * **Cable:** Single-mode Fiber Optic
    * **Ports:** R1 (Gig3/0) ↔ R3 (Gig3/0)