## An Online Tool to do a 'quick and dirty' diff of two text or code fragments

### Introduction - why use an online diff?

In my course as a developer I find myself constantly examining the differences between two pieces of text.

Now, although pretty much every IDE (and various stand-alone products) have sophisticated diff utilities built in (like Eclipse), my favourite, I got very tired of having to create two files just to paste in fragments of code or other bits of texts just in order to perform a diff and see the differences highlighted.

This is why I made myself a quick online version that I have now decided to share with anyone else interested. (Update - Since the previous version of this tool stopped working, this current version was created by Harmen Stoppels.)

**Click here for instructions**

Left

```
Describe, implement, and troubleshoot classification and marking
Describe, implement, and troubleshoot congestion management and
scheduling, for example, policing, shaping, and queuing
Describe, implement, and troubleshoot congestion avoidance
Describe Link Fragmentation (LFI), cRTP, and RTP

Multicast
Describe, implement, and troubleshoot IGMP and MLD
Describe, implement, and troubleshoot PIM
Describe, implement, and troubleshoot RP
Describe and optimize multicast scale and performance

High Availability and Fast Convergence
System level HA
Describe Multichassis/clustering HA
Describe, implement, and troubleshoot SSO/NSF, NSR, and GR
Describe, implement, and troubleshoot IGP-LDP Sync
Describe, implement, and troubleshoot LDP Session Protection

Layer 1/2/3 failure detection techniques
```

Right

```

Service Provider Architecture and Services
Service Provider architecture concepts
Describe network architecture component and service provider
network domains, for example: PE, P, CE, Metro Ethernet Core,
Aggregation, RAN Backhaul, and eNodeB
Describe Cisco IOS, Cisco IOS-XE, and Cisco IOS-XR software
architecture components, for example: XR Kernel, System
Manager, and Interprocess communication

Virtualization concepts
Describe physical router virtualization, for example: SDR,
Multiple-Logical-Routers, and Satellite Network Virtualization
Describe Network Function Virtualization architecture concepts,
for example: Service Function Chaining, ESP, EPN, and NFVI

Carrier Ethernet
Describe, implement, and troubleshoot E-LINE, for example: VPWS
Describe, implement, and troubleshoot E-LAN and E-TREE, for
example: VPLS and H-VPLS
```

Compare

### Output

```
1       - Service Provider Architecture and Evolution
    1   + Service Provider Architecture and Services
2   2     Service Provider architecture concepts
3       - Describe network architecture component and Service Provider network domain, for example, PE, P, CE, Metro Ethernet Core, and Aggregation
4       - Describe platform architecture components, for example, RP, Line Cards, and Fabric Crossbar
5       - Describe Cisco IOS-XR Software architecture components, for example, System Manager and XR Kernel
    3   + Describe network architecture component and service provider network domains, for example: PE, P, CE, Metro Ethernet Core, Aggregation, RAN
    4   + Describe Cisco IOS, Cisco IOS-XE, and Cisco IOS-XR software architecture components, for example: XR Kernel, System Manager, and Interproces
6   5
7   6     Virtualization concepts
8       - Describe basic physical router virtualization, for example, SDR and nV
9       - Describe basic network function virtualization, for example, XRv/CSR1000v
10      - Mobility concepts
11      - Describe basic Service Provider network mobility infrastructure, for example, RAN, Backhaul, and Core
    7   + Describe physical router virtualization, for example: SDR, Multiple-Logical-Routers, and Satellite Network Virtualization
    8   + Describe Network Function Virtualization architecture concepts, for example: Service Function Chaining, ESP, EPN, and NFVI
12  9
13      - Service Provider Based Services
14  10    Carrier Ethernet
15      - Describe, implement, and troubleshoot E-LINE, for example, VPWS
16      - Describe, implement, and troubleshoot E-LAN and E-TREE, for example, VPLS and H-VPLS
17      - Describe EVPN (EVPN-VPWS and PBB EVPN)
18      - Describe IEEE 802.1ad (Q-in-Q), IEEE 802.1ah (Mac-in-Mac), and ITU G.8032 (REP)
    11  + Describe, implement, and troubleshoot E-LINE, for example: VPWS
    12  + Describe, implement, and troubleshoot E-LAN and E-TREE, for example: VPLS and H-VPLS
    13  + Describe, implement, and troubleshoot EVPN
    14  + Describe IEEE 802.1ad (Q-in-Q), IEEE 802.1ah (Mac-in-Mac), and ITU G.8032 (REP)
19  15
20  16    L3VPN
21  17    Describe, implement, and troubleshoot L3VPN
22      - Describe, implement, and troubleshoot Inter-AS L3VPN
23      - Cisco Systems, Inc. This document is Cisco Public. Page 3
24      - Describe, implement, and troubleshoot Multicast VPN
25      - Describe, implement, and troubleshoot Unified MPLS and CSC
26      - Describe, implement, and troubleshoot shared services, for example, Extranet and Internet access
    18  + Describe, implement, and troubleshoot Inter-AS L3VPN
    19  + Describe, implement, and troubleshoot multicast VPN
    20  + Describe, implement, and troubleshoot unified MPLS and CSC
    21  + Describe, implement, and troubleshoot shared services, for example: Extranet and Internet access
27  22
28  23    Overlay VPN
29  24    Describe, implement, and troubleshoot L2TPv3
30      - Describe, implement, and troubleshoot LISP
31      - Describe, implement, and troubleshoot GRE and mGRE based VPN
```

## Output

```
+ Describe LISP
  Internet service
- Describe, implement, and troubleshoot Internet Peering and Transit
- Describe, implement, and troubleshoot IPv6 transition mechanism, for example, NAT44, NAT64, 6RD, and DS Lite
+ Describe, implement, and troubleshoot IPv6 transition mechanism, for example: NAT44, NAT64, 6RD, MAP, and DS Lite
  Describe, implement, and troubleshoot Internet peering route and transit policy enforcement

  Core Routing
- Interior Gateway Protocol (IGP)
- Describe, implement, and troubleshoot IS-IS
+ Interior Gateway Protocol
+ Describe, implement, and troubleshoot IS-IS
  Describe, implement, and troubleshoot OSPFv2 and OSPFv3
  Describe and optimize IGP scale and performance
-
- Border Gateway Protocol (BGP)
- Describe, implement, and troubleshoot IBGP, EBGP, and MP-BGP
+ Border Gateway Protocol
+ Describe, implement, and troubleshoot IBGP, EBGP, and MP-BGP
  Describe, implement, and troubleshoot BGP route policy enforcement
  Describe BGP path attribute
  Describe and optimize BGP scale and performance
- Describe, implement, and troubleshoot advanced BGP features, for example, add-path and BGP LS
+ Describe, implement, and troubleshoot advanced BGP features

- Multiprotocol Label Switching (MPLS)
+ Multiprotocol Label Switching
  Describe MPLS forwarding and control plane mechanisms
  Describe, implement, and troubleshoot LDP
  Describe and optimize LDP scale and performance

  MPLS Traffic Engineering
  Describe, implement, and troubleshoot RSVP
  Describe, implement, and troubleshoot ISIS and OSPF extensions
  Describe, implement, and troubleshoot MPLS TE policy enforcement
  Describe MPLS TE attributes
  Describe and optimize MPLS TE scale and performance
- Describe MPLS advanced features, for example, Segment Routing, G-MPLS,
- MPLS-TP, and MPLS-TE Inter-AS
+ Describe, implement, and troubleshoot MPLS advanced features, for example: Segment
+ Routing and MPLS-TE Inter-AS

  Multicast
- Describe, implement, and troubleshoot PIM (PIM-SM, PIM-SSM, and PIM-BIDIR)
- Describe, implement, and troubleshoot RP (Auto-RP, BSR, Static, Anycast RP, and MSDP)
- Describe, implement, and troubleshoot mLDP (including mLDP profiles from 0 to 9)
- Describe P2MP TEa
+ Describe, implement, and troubleshoot PIM (PIM-SM, PIM-SSM, and PIM-BIDIR)
+ Describe, implement, and troubleshoot RP (Auto-RP, BSR, Static, Anycast RP, and MSDP)
+ Describe, implement, and troubleshoot mVPN
  Describe and optimize multicast scale and performance

- Quality of Service (QoS)
+ Quality of Service
  Describe, implement, and troubleshoot classification and marking
- Describe, implement, and troubleshoot congestion management and
- scheduling, for example, policing, shaping, and queuing
+ Describe, implement, and troubleshoot congestion management and scheduling
  Describe, implement, and troubleshoot congestion avoidance
- Describe, implement, and troubleshoot MPLS QoS models (MAM, RDM, Pipe, Short Pipe, and Uniform)
- Describe, implement, and troubleshoot MPLS TE QoS (CBTS, PBTS, and DS-TE)
+ Describe, implement, and troubleshoot MPLS QoS models (Pipe, Short Pipe, and Uniform)
+ Describe, implement, and troubleshoot MPLS TE QoS (MAM, RDM, CBTS, PBTS, and DS-TE)

  Access and Aggregation
  Transport and encapsulation technologies
- Describe transport technologies, for example, optical, xDSL, DOCSIS, TDM, and GPON
- Describe, implement, and troubleshoot Ethernet technologies
- Describe link aggregation techniques
+ Describe transport technologies, for example: optical, xDSL, DOCSIS, TDM, and GPON
+ Describe Ethernet technologies
+ Describe, implement, and troubleshoot link aggregation techniques

- PE-CE connectivity
- Describe, implement, and troubleshoot PE-CE routing protocols, for example, static, OSPF, and BGP
+ PE-CE connectivity
+ Describe, implement, and troubleshoot PE-CE routing protocols, for example: static, OSPF, RIP, RIPng, EIGRP, ISIS, and BGP
  Describe, implement, and troubleshoot route redistribution
  Describe, implement, and troubleshoot route filtering
- Describe, implement, and troubleshoot loop prevention techniques in Multihomed environments
- Describe, implement, and troubleshoot end-to-end fast convergence
- Describe, implement, and troubleshoot Multi-VRF CE
- Describe Broadband Forum TR-101, for example, Trunk N:1 and Trunk 1:1
+ Describe, implement, and troubleshoot loop prevention techniques in multihomed environments
+ Describe, implement, and troubleshoot Multi-VRF CE

- Quality of Service (QoS)
+ Quality of Service
  Describe, implement, and troubleshoot classification and marking
```

**Output**

```
96        - Describe, implement, and troubleshoot congestion management and
97        - scheduling, for example, policing, shaping, and queuing
      84  + Describe, implement, and troubleshoot congestion management and scheduling, for
      85  + example: policing, shaping, and queuing
98    86    Describe, implement, and troubleshoot congestion avoidance
99        - Describe Link Fragmentation (LFI), cRTP, and RTP
100   87
101   88    Multicast
102   89    Describe, implement, and troubleshoot IGMP and MLD
103   90    Describe, implement, and troubleshoot PIM
104   91    Describe, implement, and troubleshoot RP
105   92    Describe and optimize multicast scale and performance
106   93
107   94    High Availability and Fast Convergence
108   95    System level HA
109   96    Describe Multichassis/clustering HA
110   97    Describe, implement, and troubleshoot SS0/NSF, NSR, and GR
111       - Describe, implement, and troubleshoot IGP-LDP Sync
      98  + Describe, implement, and troubleshoot IGP-LDP Sync
112   99    Describe, implement, and troubleshoot LDP Session Protection
113   100
114   101   Layer 1/2/3 failure detection techniques
115   102   Describe Layer 1 failure detection
116   103   Describe, implement, and troubleshoot Layer 2 failure detection
117   104   Describe, implement, and troubleshoot Layer 3 failure detection
118   105   Routing/fast convergence
119   106   Describe, implement, and optimize IGP convergence
120   107   Describe, implement, and optimize BGP convergence
121       - Describe, implement, and optimize IP FRR and TE FRR
      108 + Describe, implement, and optimize IP FRR and MPLS TE FRR
      109 + Service Provider Security, Operation, and Management
122   110
123       - Service Provider Security, Service Provider Operation and Management
124   111   Control plane security
125       - Describe, implement, and troubleshoot control plane protection techniques
126       - (LPTS and CoPP)
127       - Describe, implement, and troubleshoot routing protocol security, for example,
128       - BGP-TTL security and protocol authentication
      112 + Describe, implement, and troubleshoot control plane protection techniques, for example: LPTS and CoPP
      113 + Describe, implement, and troubleshoot routing protocol security, for example: BGP-TTL
      114 + security and protocol authentication
129   115   Describe, implement, and troubleshoot BGP prefix suppression
130       - Describe, implement, and troubleshoot LDP security, for example,
131       - authentication and label allocation filtering
      116 + Describe, implement, and troubleshoot LDP security, for example: authentication and
      117 + label allocation filtering
132   118   Describe, implement, and troubleshoot BGP prefix based filtering
133       - Describe BGPsec
      119 + Describe, implement, and troubleshoot BGPsec
134   120
135   121   Management plane security
136       - Describe, implement, and troubleshoot device management, for example, MPP,
137       - SSH, and VTY
      122 + Describe, implement, and troubleshoot device management, for example: MPP, SSH, VTY
138   123   Describe, implement, and troubleshoot logging and SNMP security
139   124   Describe backscatter Traceback
140   125
141   126   Infrastructure security
142   127   Describe, implement, and troubleshoot uRPF
143       - Describe Lawful-intercept
      128 + Describe Lawful-intercept
144   129   Describe, implement, and troubleshoot iACL
145   130   Describe, implement, and troubleshoot RTBH
146       - Describe BGP Flowspec
      131 + Describe, implement, and troubleshoot BGP Flowspec
147   132   Describe DDoS mitigation techniques
148   133
149   134   Timing and synchronization
150       - Describe, implement, and troubleshoot timing protocol, for example, NTP, v2, and SyncE
151       -
      135 + Describe timing protocol, for example: NTP, 1588v2, and SyncE
152   136   Network monitoring and troubleshooting
153   137   Describe, implement, and troubleshoot syslog and logging functions
154   138   Describe, implement, and troubleshoot SNMP traps, RMON, EEM, and EPC
155       - Describe, implement, and troubleshoot port mirroring protocols, for example,
156       -
157       - SPAN, RSPAN, and ERSPAN
158   139   Describe, implement, and troubleshoot NetFlow and IPFIX
159   140   Describe, implement, and troubleshoot IP SLA
160   141   Describe, implement, and troubleshoot MPLS OAM and Ethernet OAM
161       - Describe network event and fault management
162       - Describe performance management and capacity procedures
163   142   Network configuration and change management
164       - Describe maintenance, operational procedures
165       - Describe network inventory management process
166       - Describe network change, implementation, and rollback
167       - Describe incident management process based on ITILv3 framework
      143 + Describe configuration change, implementation, and rollback
168   144
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**Output**

```
169 145   Evolving Technologies
170 146   Cloud
171 147   Compare and contrast Cloud deployment models
172 148   Infrastructure, platform, and software services (XaaS)
173 149   Performance and reliability
174 150   Security and privacy
175 151   Scalability and interoperability
176 152   Describe Cloud implementations and operations
177 153   Automation and orchestration
178 154   Workload mobility
179 155   Troubleshooting and management
180 156   OpenStack components
181 157
182     - Network programmability (SDN)
    158 + Network Programmability (SDN)
183 159   Describe functional elements of network programmability (SDN) and how they interact
184 160   Controllers
185 161   APIs
186 162   Scripting
187 163   Agents
188 164   Northbound vs. Southbound protocols
189 165   Describe aspects of virtualization and automation in network environments
190 166   DevOps methodologies, tools and workflows
191 167   Network/application function virtualization (NFV, AFV)
192 168   Service function chaining
193 169   Performance, availability, and scaling considerations
194 170
195     - Internet of Things
196     - Describe architectural framework and deployment considerations for Internet of Things (IoT)
    171 + Internet of Things (IoT)
    172 + Describe architectural framework and deployment considerations for Internet of Things
197 173   Performance, reliability and scalability
198 174   Mobility
199 175   Security and privacy
200 176   Standards and compliance
201 177   Migration
202 178   Environmental impacts on the network
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