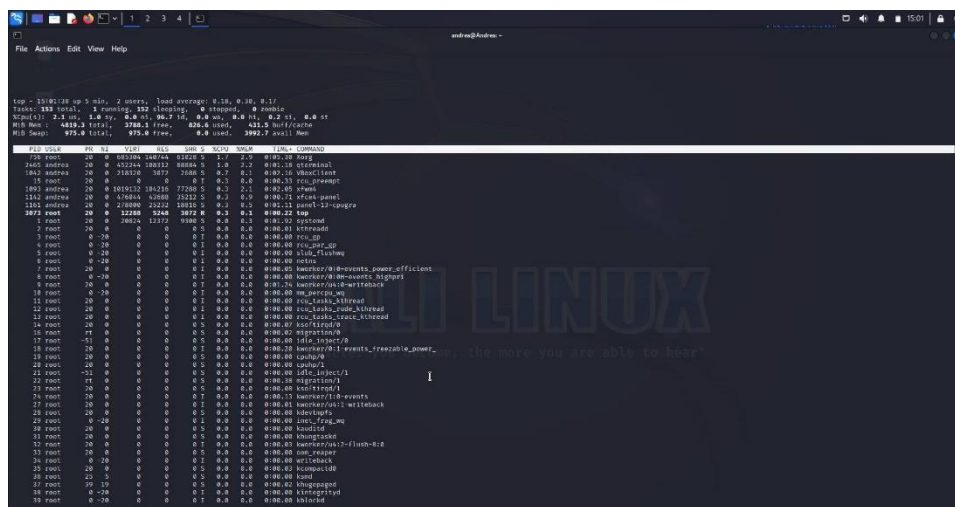


Settimana 2 Esercizio2

Shell di Linux

Andiamo a familiarizzare con i comandi della Shell di Linux.

- Per visualizzare i processi attivi digitare il comando `'sudo top'` e andiamo ad identificare le voci:
 - PID = valore univoco che conferisce un numero di esecuzione;
 - USER = l'utente che ha eseguito il processo;
 - COMMAND = comando di esecuzione del processo.



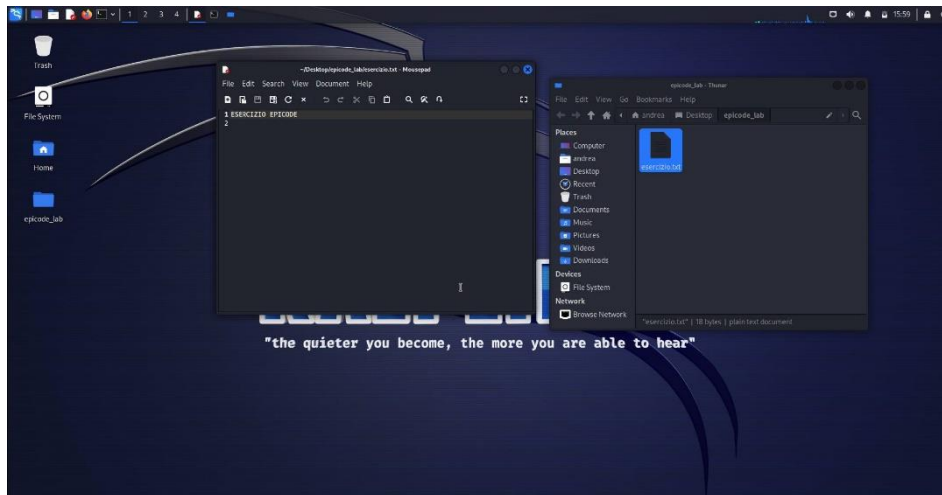
```
top - 10:01:18 up 5 min, 2 users, load average: 0.18, 0.10, 0.17
Tasks: 133 total, 3 running, 132 sleeping, 0 stopped, 0 zombie
MiB Mem : 4819.3 total, 2788.1 free, 826.6 used, 421.5 buff/cache
MiB Swap: 975.0 total, 975.0 free, 0.0 used, 7892.7 avail Mem

  PID USER   PRI  NI  VIRT   RES   SHR  S  CPU  MEM COMMAND
 756 root    20   0 60280 14076 51228 S  1/ 2.9 0.0% 0.0% top
1845 andrea  20   0 40224 18812 8888 S  1.0 2.7 0.0% 0.0% strimstat
1842 andrea  20   0 21816 1872 7088 S  0.7 0.1 0.0% 0.0% VBoxClient
 15 root    20   0 0 0 0 S  0.1 0.0 0.0% 0.0% rcu_preempt
1801 andrea  20   0 161912 181216 77280 S  0.3 2.1 0.0% 0.0% xfsd
1511 andrea  20   0 51684 5088 25212 S  0.2 0.0 0.0% 0.0% xfsd
1501 andrea  20   0 21888 22224 18016 S  0.1 0.1 0.0% 0.0% xfsd
2872 root    20   0 12288 1248 2872 S  0.0 0.0 0.0% 0.0% top
  1 root    0   0 0 0 0 S  0.0 0.0 0.0% 0.0% system
  2 root    0   0 0 0 0 S  0.0 0.0 0.0% 0.0% kthreadd
  3 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_gp
  4 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_par_gp
  5 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% kld_flushcp
  6 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% kmemleak
  7 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% kworker/0-rcv_events_power_off
  8 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% kworker/0-rcv_events_hipart
  9 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% kworker/0-wifi
10 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% kworker/0-wifi
11 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_kthreadd
12 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_rtc_kthreadd
13 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
14 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
15 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
16 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
17 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
18 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
19 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
20 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
21 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
22 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
23 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
24 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
25 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
26 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
27 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
28 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
29 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
30 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
31 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
32 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
33 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
34 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
35 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
36 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
37 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
38 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
39 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
40 root    0 -20  0 0 0 S  0.0 0.0 0.0% 0.0% rcu_tasks_trace_kthreadd
```

- Creiamo una nuova directory all'interno della directory `/Desktop` chiamata `Epicode_Lab` e ci spostiamo all'interno di essa con il comando `'cd'` creando poi il file `'Esercizio.txt'` tramite il comando `'nano'`



```
(andrea@Andrea) ~$ cd /Desktop
(andrea@Andrea) ~/Desktop$ mkdir epicode_lab
(andrea@Andrea) ~/Desktop$ cd epicode_lab
(andrea@Andrea) ~/Desktop/epicode_lab$ nano esercizio.txt
```



- Per leggere a schermo l'esercizio utilizziamo il comando `'cat esercizio.txt'` e con il comando `'ls -la'` vediamo i privilegi degli utenti per poi modificarli con il comando `'chmod'` seguito da u, g oppure o per modificare utente, gruppo oppure altri

```

andrea@Andrea: ~/Desktop/epicode_lab
File Actions Edit View Help
(andrea@Andrea)-[~/Desktop]
$ cd EPICODE_LAB
CD: command not found
(andrea@Andrea)-[~/Desktop]
$ cd epicode_lab
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ cat esercizio.txt
ESERCIZIO EPICODE
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ ls -la
total 12
drwxr-xr-x 2 andrea andrea 4096 Oct  3 15:58 .
drwxr-xr-x 3 andrea andrea 4096 Oct  3 15:53 ..
-rw-r--r-- 1 andrea andrea  18 Oct  3 15:58 esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ 

```

```

andrea@Andrea: ~/Desktop/epicode_lab
File Actions Edit View Help
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ chmod u+x
chmod: missing operand after 'u+x'
Try 'chmod --help' for more information.
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ chmod u+x esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ ls -la
total 12
drwxr-xr-x 2 andrea andrea 4096 Oct  3 15:58 .
drwxr-xr-x 3 andrea andrea 4096 Oct  3 15:53 ..
-rwxr--r-- 1 andrea andrea  18 Oct  3 15:58 esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ chmod g+w esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ ls -la
total 12
drwxr-xr-x 2 andrea andrea 4096 Oct  3 15:58 .
drwxr-xr-x 3 andrea andrea 4096 Oct  3 15:53 ..
-rwxrw-r-- 1 andrea andrea  18 Oct  3 15:58 esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ 

```

- Ora andiamo a negare il permesso di lettura agli utenti estranei con `'chmod o-r esercizio.txt'` e cambiando utente non sarà possibile leggerlo

```

andrea@Andrea: ~/Desktop/epicode_lab
File Actions Edit View Help
(andrea@Andrea)-[~/Desktop]
$ cd epicode_lab
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ cat esercizio.txt
ESERCIZIO EPICODE
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ ls -la
total 12
drwxr-xr-x 2 andrea andrea 4096 Oct  3 15:58 .
drwxr-xr-x 3 andrea andrea 4096 Oct  3 15:53 ..
-rwxrw-r-- 1 andrea andrea  18 Oct  3 15:58 esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ chmod o-r esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ ls -la
total 12
drwxr-xr-x 2 andrea andrea 4096 Oct  3 15:58 .
drwxr-xr-x 3 andrea andrea 4096 Oct  3 15:53 ..
-rwxrw--- 1 andrea andrea  18 Oct  3 15:58 esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ 

```

```

andrea@Andrea: ~/Desktop/epicode_lab
File Actions Edit View Help
ESERCIZIO EPICODE
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ ls -la
total 12
drwxr-xr-x 2 andrea andrea 4096 Oct  3 15:58 .
drwxr-xr-x 3 andrea andrea 4096 Oct  3 15:53 ..
-rwxrw--- 1 andrea andrea  18 Oct  3 15:58 esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ chmod o-r esercizio.txt
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ mv esercizio.txt root
(andrea@Andrea)-[~/Desktop/epicode_lab]
$ su utente
Password:
$ cat esercizio.txt
cat: esercizio.txt: No such file or directory
$ 

```

- Inserendo i permessi per l'utente di lettura allora potremo leggere il testo dell'esercizio

```

Andrea@Andrea: ~/Desktop/epicode_lab
File Actions Edit View Help

Andrea@Andrea: ~/Desktop/epicode_lab
$ mv esercizio.txt /root
mv: cannot stat '/root/esercizio.txt': Permission denied

Andrea@Andrea: ~/Desktop/epicode_lab
$ ls -la
total 12
drwxr-xr-x 2 andrea andrea 4096 Oct 3 16:40 .
drwxr-xr-x 3 andrea andrea 4096 Oct 3 15:53 ..
-rwxrwx--- 1 andrea andrea 18 Oct 3 15:58 esercizio.txt

Andrea@Andrea: ~/Desktop/epicode_lab
$ chmod o+r esercizio.txt

Andrea@Andrea: ~/Desktop/epicode_lab
$ ls -la
total 12
drwxr-xr-x 2 andrea andrea 4096 Oct 3 16:40 .
drwxr-xr-x 3 andrea andrea 4096 Oct 3 15:53 ..
-rwxrwxr-- 1 andrea andrea 18 Oct 3 15:58 esercizio.txt

Andrea@Andrea: ~/Desktop/epicode_lab
$ su utente
Password:
$ cat esercizio.txt
ESERCIZIO EPICODE
$

```

- Infine, per eliminare il file .txt eseguire il comando `'rm esercizio.txt'` all'interno della directory `'epicode_lab'` ed eliminare la stessa con il comando `'rmdir epicode_lab'`

```
andrea@Andrea: ~/Desktop/epicode_lab
File Actions Edit View Help
(Andrea@Andrea) - [~/Desktop]
$ cd epicode_lab
(Andrea@Andrea) - [~/Desktop/epicode_lab]
$ rm esercizio.txt
```

```

Andrea@Andrea: ~/Desktop
File Actions Edit View Help

(Andrea@Andrea)~/Desktop
$ rmdir epicode_lab

(Andrea@Andrea)~/Desktop
$ mv epicode_lab
$ mv epicode_lab
$ mv epicode_lab

(Andrea@Andrea)~/Desktop/epicode_lab
$ ls
$ cd
$ mv ./src ./Andrea Andrea-SP96-011-1-1516
$ mv ./src ./Andrea Andrea-SP96-011-1-1517
$ mv ./src ./Andrea Andrea-1518-1-1519-1520-1521-1522-1523-1524-1525-1526-1527-1528-1529-1530-1531-1532-1533-1534-1535-1536-1537-1538-1539-1540-1541-1542-1543-1544-1545-1546-1547-1548-1549-1550-1551-1552-1553-1554-1555-1556-1557-1558-1559-1560-1561-1562-1563-1564-1565-1566-1567-1568-1569-1570-1571-1572-1573-1574-1575-1576-1577-1578-1579-1580-1581-1582-1583-1584-1585-1586-1587-1588-1589-1590-1591-1592-1593-1594-1595-1596-1597-1598-1599-1600-1601-1602-1603-1604-1605-1606-1607-1608-1609-1610-1611-1612-1613-1614-1615-1616-1617-1618-1619-1620-1621-1622-1623-1624-1625-1626-1627-1628-1629-1630-1631-1632-1633-1634-1635-1636-1637-1638-1639-1640-1641-1642-1643-1644-1645-1646-1647-1648-1649-1650-1651-1652-1653-1654-1655-1656-1657-1658-1659-1660-1661-1662-1663-1664-1665-1666-1667-1668-1669-1670-1671-1672-1673-1674-1675-1676-1677-1678-1679-1680-1681-1682-1683-1684-1685-1686-1687-1688-1689-1690-1691-1692-1693-1694-1695-1696-1697-1698-1699-1700-1701-1702-1703-1704-1705-1706-1707-1708-1709-1710-1711-1712-1713-1714-1715-1716-1717-1718-1719-1720-1721-1722-1723-1724-1725-1726-1727-1728-1729-1730-1731-1732-1733-1734-1735-1736-1737-1738-1739-1740-1741-1742-1743-1744-1745-1746-1747-1748-1749-1750-1751-1752-1753-1754-1755-1756-1757-1758-1759-1760-1761-1762-1763-1764-1765-1766-1767-1768-1769-1770-1771-1772-1773-1774-1775-1776-1777-1778-1779-1780-1781-1782-1783-1784-1785-1786-1787-1788-1789-1790-1791-1792-1793-1794-1795-1796-1797-1798-1799-1800-1801-1802-1803-1804-1805-1806-1807-1808-1809-1810-1811-1812-1813-1814-1815-1816-1817-1818-1819-1820-1821-1822-1823-1824-1825-1826-1827-1828-1829-1830-1831-1832-1833-1834-1835-1836-1837-1838-1839-1840-1841-1842-1843-1844-1845-1846-1847-1848-1849-1850-1851-1852-1853-1854-1855-1856-1857-1858-1859-1860-1861-1862-1863-1864-1865-1866-1867-1868-1869-1870-1871-1872-1873-1874-1875-1876-1877-1878-1879-1880-1881-1882-1883-1884-1885-1886-1887-1888-1889-1890-1891-1892-1893-1894-1895-1896-1897-1898-1899-1900-1901-1902-1903-1904-1905-1906-1907-1908-1909-1910-1911-1912-1913-1914-1915-1916-1917-1918-1919-1920-1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177-2178-2179-2180-2181-2182-2183-2184-2185-2186-2187-2188-2189-2190-2191-2192-2193-2194-2195-2196-2197-2198-2199-2200-2201-2202-2203-2204-2205-2206-2207-2208-2209-2210-2211-2212-2213-2214-2215-2216-2217-2218-2219-2220-2221-2222-2223-2224-2225-2226-2227-2228-2229-2230-2231-2232-2233-2234-2235-2236-2237-2238-2239-2240-2241-2242-2243-2244-2245-2246-2247-2248-2249-2250-2251-2252-2253-2254-2255-2256-2257-2258-2259-2260-2261-2262-2263-2264-2265-2266-2267-2268-2269-2270-2271-2272-2273-2274-2275-2276-2277-2278-2279-2280-2281-2282-2283-2284-2285-2286-2287-2288-2289-2290-2291-2292-2293-2294-2295-2296-2297-2298-2299-2300-2301-2302-2303-2304-2305-2306-2307-2308-2309-2310-
```

- Eliminare l'utente creato con il comando `'sudo userdel utente'`

```
andrea@Andrea: ~/Desktop
File Actions Edit View Help
andrea@Andrea ~[~/Desktop]
$ rmdir epicode_lab
andrea@Andrea ~[~/Desktop]
$ sudo userdel utente
[sudo] password for andrea:
Sorry, try again.
[sudo] password for andrea:
andrea@Andrea ~[~/Desktop]
$ su utente
su: user utente does not exist or the user entry does not contain all the re
quired fields
andrea@Andrea ~[~/Desktop]
$
```

