Options:

-h/-hh help/advanced help --version show version number

-v VERBOSE verbosity level: 0-6 (default 1)

<u>Target</u>: (At least one of these options has to be provided)

-u URL target URL-d DIRECT direct connection to the db-m FILE targets in a file-l LOGFILE parse from Burp/WebScarab

-r FILE load HTTP request file -g GDORK google dork as target

-c CONFIGFILE load options from a configuration INI file

Request: (specify how to connect to the target URL)

--data=DATA data string to be sent through POST

--param-del=PDEL character used for splitting parameter values

--cookie=COOKIE HTTP Cookie header

--cookie-del=CDEL character used for splitting cookie values

--load-cookies=L.. file containing cookies in Netscape/wget format

--drop-set-cookie ignore Set-Cookie header from response

--user-agent=AGENT --random-agent

--host=HOST --referer=REFERER --headers=HEADERS

--auth-type=AUTH.. Basic, Digest, NTLM or PKI

--auth-cred=AUTH.. name:password --auth-private=A.. PEM private key file

--proxy=PROXY --proxy-cred=PRO.. name:password

--proxy-file=PRO.. list from a file --ignore-proxy ignore system settings

--tor --tor-port=TPORT --tor-type=TYPE HTTP (dflt), SOCKS4, SOCKS5

--check-tor check to see if Tor is used properly

--delay=DELAY delay in seconds between each HTTP request

--timeout=TIMEOUT seconds to wait before timeout (default 30)

--retries=RETRIES retries when the connection timeouts (default 3)

--randomize=RPARAM randomly change value for given parameter(s)

--safe-url=SAFURL URL address to visit frequently during testing

--safe-freq=SAFREQ test requests between two visits to a given safe URL

--skip-urlencode skip URL encoding of payload data

--force-ssl force usage of SSL/HTTPS

--eval=EVALCODE

--hpp use HTTP parameter pollution

evaluate provided Python code before the request (e.g. "import hashlib;id2=hashlib.md5(id).hexdigest()")

Optimization: SQLMap v1.0

turn on all optimization switches
 --predict-output predict common queries output
 --keep-alive use persistent HTTP(s) connections

--null-connection retrieve page length without actual HTTP response body
--threads=THREADS max number of concurrent HTTP(s) requests (default 1)

Injection:

ecurityByDefault.co

-p TESTPARAMETER testable parameter(s)

--skip=SKIP skip testing for given parameter(s)
--dbms=DBMS force back-end DBMS to this value

--dbms-cred=DBMS.. DBMS authentication credentials (user:password)

--os=OS force backend DBMS OS to this value
--invalid-bignum use big numbers for invalidating values
--invalid-logical/--invalid-string use logical/random for invalidating values

--no-cast/--no-escape turn off payload casting/escaping
--prefix=PREFIX/--suffix=SUFFIX injection payload prefix/suffix string

--tamper=TAMPER use given script(s) for tampering injection data

<u>Detection</u>: (used to customize/improve the detection phase)

--level=LEVEL level of tests to perform (1-5, default 1)
--risk=RISK risk of tests to perform (0-3, default 1)

--string=STRING/--not-string=NOT.. match when query is evaluated to True/False
--regexp=REGEXP regexp to match when query is evaluated to True
--code=CODE HTTP code to match when query is evaluated to True
--text-only/--titles compare pag based only on the textual content/ titles

Techniques: (used to tweak testing of specific SQL injection)

--technique=TECH SQL injection techniques to use (default "BEUSTQ")
--time-sec=TIMESEC seconds to delay the DBMS response (default 5)

--union-cols=UCOLS range of columns to test for UNION query SQL injection
--union-char=UCHAR character to use for bruteforcing number of columns
--union-from=UFROM table to use in FROM part of UNION query SQL injection

--dns-domain=DNS.. domain name used for DNS exfiltration attack

--union-from=UFROM table to use in FROM part of UNION query SQL injection

--dns-domain=DNS.. domain name used for DNS exfiltration attack

--second-order=S.. resulting page URL searched for second-order response

Enumeration: (enumerate the back-end database, structure and data contained) **Fingerprint:** -f, --fingerprint perform an extensive DBMS version fingerprint -b retrieve banner -a, --all retrieve everything **Brute Force:** --common-tables/--common-columns check common tables/columns --is-dba check if user is DBA User-defined function injection: --current-user/--current-db/--hostname retrieve DBMS current user/database/hostname --udf-inject inject custom functions --shared-lib=SHLIB local path of the shared lib --users/--passwords enumerate DBMS users / users password hashes File system access: --privileges/--roles enumerate DBMS users privileges/roles --file-read=RFILE/--file-write=WFILE read/write local file on the DBMS file system --dbs/--tables/--columns/--schema enumerate DBMS dbs/tables/columns/schema --file-dest=DFILE back-end DBMS absolute filepath to write to retrieve num of entries for table(s) --search search column(s), table/db name --count **Operating system access:** --dump-all dump all DBMS dbs tables entries --dump dump DBMS db table entries --os-cmd=OSCMD execute an operating system command -U USFR --exclude-sysdbs exclude system dbs DBMS user to enumerate prompt for an interactive operating system shell --os-shell --comments retrieve DBMS comments -X EXCLUDECOL table column(s) to not enum prompt for an OOB shell, meterpreter or VNC -D DB / -T TBL / -C COL DBMS database to enumerate / tables / columns --os-pwn one click prompt for an OOB shell, meterpreter or VNC --where=DUMPWHERE use WHERE condition while table dumping --os-smbrelay --os-bof stored procedure buffer overflow exploitation --start=LIMITSTART/--stop=LIMITSTOP first/last query output entry to retrieve database process user privilege escalation --first=FIRSTCHAR/--last=LASTCHAR --priv-esc first/last query output word character to retrieve --msf-path=MSFPATH/--tmp-path=TMPPATH local Metasploit/Remote tmp path --sql-file=SQLFILE execute SQL statements from given file(s) --sql-shell prompt for an interactive SQL shell Windows registry access: --sql-file=FILE execute SQL statements from given file(s) --reg-read/--reg-add/--reg-del read/write/delete a win registry key value General: --reg-kev=REGKEY win registry key --reg-value=REGVAL win reg key value -s SESSIONFILE load session from .sglite file -t TRAFFICFILE log all HTTP traffic --reg-type=REGTYPE win reg key value type --reg-data=REGDATA win reg key data --batch never ask for input --eta display for each eta Miscellaneous: --save save options to a configuration INI file --update update sqlmap -z MNEMONICS use short mnemonics (e.g. "flu,bat,ban,tec=EU") --charset=CHARSET force character encoding used for data retrieval --alert=ALERT run host OS command(s) when SQL injection is found --crawl=CRAWLDEPTH crawl the website starting from the target URL --answers=ANSWERS set question answers (e.g. "quit=N,follow=N") --csv-del=CSVDEL delimiting character used in CSV output (default ",") --check-waf/--identify-waf WAF/IPS/IDS protection --dump-format=DU.. format of dumped data (CSV (default), HTML or SQLITE) --cleanup clean up the DBMS from sqlmap specific UDF and tables --flush-session flush session files for current target SQLMap v1.0 --dependencies check for missing (non-core) sqlmap dependencies --forms parse and test forms on target URL --gpage=GOOGLEPAGE Use Google dork results from specified page number

--mobile

--smart

--wizard

--page-rank

--purge-output

--disable-coloring

ignore query results stored in session file

custom output directory path

pivot column name

use DBMS hex function(s) for data retrieval

regexp to filter targets from provided proxy log

select tests by payloads and/or titles (e.g. ROW)

parse and display DBMS error messages from responses

--fresh-queries

--parse-errors

--output-dir=ODIR

--pivot-column=P...

--scope=SCOPE

--test-filter=TE..

--hex

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imitate smartphone through HTTP User-Agent header

if sal injection is found.

display page rank (PR) for Google dork results

wizard interface for beginner users

--beep

safely remove all content from output directory

conduct through tests only if positive heuristic(s)