

Kyra Samuel  
L4: Password Generator

## Tests:

Test 1:

Password Input = **SDEV300Password!!\$**

Passwords:

1. MD5: **791149e6b175838db973076f3887fe21**
2. SHA256:  
**831d35afea28e0d479001c4d46d3da573dbab508fdfff2ba51709c55607cfaf8**
3. SHA512:  
**0a0cb5a8609b1b09a05977219a6cf929256783ecced0126b9a60fa7fef44dcb351ca32e8725ef15b87105e7cfdeff8e253bb32d108d9794745e39de29bda183**
4. BLAKE2B:  
**89a20cf7f17d291aa17608dc5af16b1b3ad106c95f935e7dd443563e4b4f816b06b09a26be1e1a43711c27d270c1ddd52c653695984469b38af8feeb80f562d5**
5. BLAKE2S:  
**5fc71db1a549df56862bbccb6636c40ffcbc9cd5f376e9361816cd5009c0bdd4**
6. SHA1: **0a0a187c669a64e89de796b5fffa7422a36171d2**
7. SHAKE128: **b'4\xbbp\xcd\xdd\xb8\xba\x9b\xe9y\xa1\xf7'**
8. SHAKE256: **b'\x86\x0f9A97\xc4Q\xe6\xbb\xf8\xc5'**
9. SHA3-224: **f67b1fafadae45519d586eec591678d93d106f72c842d4ff65f48fb7**
10. SHA3-384:  
**ef2890c9c069b823bf78ca7614191d6d51169c19f982101c884e48514ece7551e9a01416385e84643da53238d25a975b**

Enter a password to encode: SDEV300Password!!\$

Generating 10 passwords:

MD5: 791149e6b175838db973076f3887fe21

SHA256: 831d35afea28e0d479001c4d46d3da573dbab508fdfff2ba51709c55607cfaf8

SHA512: 0a0cb5a8609b1b09a05977219a6cf929256783eeced0126b9a60fa7fef  
d44dcb351ca32e8725ef15b87105e7cfdef8e253bb32d108d9794745e39de29bd  
a183

BLAKE2B: 89a20cf7f17d291aa17608dc5af16b1b3ad106c95f935e7dd443563e4  
b4f816b06b09a26be1e1a43711c27d270c1ddd52c653695984469b38af8feeb80f  
562d5

BLAKE2S: 5fc71db1a549df56862bbccb6636c40ffcbc9cd5f376e9361816cd500  
9c0bdd4

SHA1: 0a0a187c669a64e89de796b5fffa7422a36171d2

SHAKE128: b'4\xbbp\xcd\xdd\xba\x9b\xe9y\xa1\xf7'

SHAKE256: b'\x86\x0f9A97\xc4Q\xe6\xbb\xf8\xc5'

SHA3-224: f67b1fafadae45519d586eec591678d93d106f72c842d4ff65f48fb7

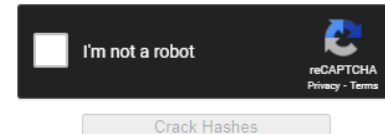
SHA3-384: ef2890c9c069b823bf78ca7614191d6d51169c19f982101c884e4851  
4ece7551e9a01416385e84643da53238d25a975b

## Crackstation Test:

Enter up to 20 non-salted hashes, one per line:

```
791149e6b175838db973076f3887fe21
831d35afea28e0d479001c4d46d3da573dbab508fdfff2ba51709c55607cfaf8
0a0cb5a8609b1b09a05977219a6cf929256783eeced0126b9a60fa7fef
d44dcb351ca32e8725ef15b87105e7cfdef8e253bb32d108d9794745e39de29bda183
89a20cf7f17d291aa17608dc5af16b1b3ad106c95f935e7dd443563e4b4f816b06b09a26
be1e1a43711c27d270c1ddd52c653695984469b38af8feeb80f562d5
5fc71db1a549df56862bbccb6636c40ffcbc9cd5f376e9361816cd5009c0bdd4
0a0a187c669a64e89de796b5fffa7422a36171d2
b'4\xbbp\xcd\xdd\xba\x9b\xe9y\xa1\xf7'
b'\x86\x0f9A97\xc4Q\xe6\xbb\xf8\xc5'
f67b1fafadae45519d586eec591678d93d106f72c842d4ff65f48fb7
ef2890c9c069b823bf78ca7614191d6d51169c19f982101c884e48514ece7551e9a01416
```

**Supports:** LM, NTLM, md2, md4, md5, md5(md5\_hex), md5-half, sha1, sha224, sha256, sha384, sha512, ripeMD160, whirlpool, MySQL 4.1+ (sha1 sha1\_bin), QubesV3.1BackupDefaults



Hash	Type	Result
791149e6b175838db973076f3887fe21	Unknown	Not found.
831d35afea28e0d479001c4d46d3da573dbab508fdfff2ba51709c55607cfaf8	Unknown	Not found.
0a0cb5a8609b1b09a05977219a6cf929256783eeced0126b9a60fa7fef d44dcb351ca32e8725ef15b87105e7cfdef8e253bb32d108d9794745e39de29bda183	Unknown	Not found.
89a20cf7f17d291aa17608dc5af16b1b3ad106c95f935e7dd443563e4b4f816b 06b09a26be1e1a43711c27d270c1ddd52c653695984469b38af8feeb80f562d5	Unknown	Not found.
5fc71db1a549df56862bbccb6636c40ffcbc9cd5f376e9361816cd5009c0bdd4	Unknown	Not found.
0a0a187c669a64e89de796b5fffa7422a36171d2	Unknown	Not found.
b'4\xbbp\xcd\xdd\xba\x9b\xe9y\xa1\xf7'	Unknown	Unrecognized hash format.
b'\x86\x0f9A97\xc4Q\xe6\xbb\xf8\xc5'	Unknown	Unrecognized hash format.
f67b1fafadae45519d586eec591678d93d106f72c842d4ff65f48fb7	Unknown	Not found.
ef2890c9c069b823bf78ca7614191d6d51169c19f982101c884e48514ece7551 e9a01416385e84643da53238d25a975b	Unknown	Not found.

- SHAKE is not recognized as a format, this a new feature in the hashlib library!

## Test 2:

p1-hE7e37uwru?l0Rl\$u

Strong password

Use the slider, and select from the options, below, to lengthen your password and strengthen your security.

Password Length (4-64)

20

☒ Letters ☒ Mixed case ☒ Punctuation ☒ Numbers

### - Using Norton's Password Generator

Password Input = **p1-hE7e37uwru?l0Rl\$u**

Passwords:

1. MD5: **89183897137f7fdea84285db1f9fe235**
2. SHA256:  
**ebb61f93e2ebb8c3085c7a16f517aba847cfbd002685554f205af3bc7f1d4db6**
3. SHA512:  
**40a919960e9ec180a2c47859c013c4f0bf0ccbd49b054b709affd994cce9426cb  
1feb0e17485448434d0023cf3ec7edb05948323aac8f3eb5f9a2ba3fa462b5a**
4. BLAKE2B:  
**555d2d02fb41c12f394db1dba03e44c73d24e62ab15ab47441908dbb5f834b85  
31b480d4b0e5d1bd9fe2308b3189b71504f3afac01d545e10e3795c33e50378b**
5. BLAKE2S:  
**4b6aa914dc5ee477bf580ae0b6b10d00ca0701d54a26af1d2113a344c158157f**
6. SHA1: **ddbd2deb9fae50aae081c21b093a6f63192f85ce**
7. SHAKE128: **b'\x19C\xab\xc1\xbd\xe7\xc9cc\xe2\xfc\xde'**
8. SHAKE256: **b'\xfc\xc86\xb7\xb5N\xdf\x81-\xf8\n\xc7'**
9. SHA3-224: **a28f6298f870a1792c7960d5e155a3d74fab5f3a9fd659b6e357233b**
10. SHA3-384:  
**0779e0512f86be17246445330f1b9a505965c89614335e1f4817a8bf9c3dbead1  
ef7eb525992ad6a0835d09a2791bd2d**

```

Enter a password to encode: p1-hE7e37uwru?l0Rl$u
Generating 10 passwords:

MD5: 89183897137f7fdea84285db1f9fe235
SHA256: ebb61f93e2ebb8c3085c7a16f517aba847cfbd002685554f205af3bc7f1d4db6
SHA512: 40a919960e9ec180a2c47859c013c4f0bf0ccbd49b054b709affd994cce9426cb1feb0e17485448434d0023cf3ec7edb05948323aac8f3eb5f9a2ba3fa462b5a
BLAKE2B: 555d2d02fb41c12f394db1dba03e44c73d24e62ab15ab47441908dbb5f834b8531b480d4b0e5d1bd9fe2308b3189b71504f3afac01d545e10e3795c33e50378b
BLAKE2S: 4b6aa914dc5ee477bf580ae0b6b10d00ca0701d54a26af1d2113a344c158157f
SHA1: ddbd2deb9fae50aae081c21b093a6f63192f85ce
SHAKE128: b'\x19C\xab\xc1\xbd\xe7\xc9cc\xe2\xfc\xde'
SHAKE256: b'\xfc\xc86\xb7\xb5N\xdf\x81-\xf8\n\xc7'
SHA3-224: a28f6298f870a1792c7960d5e155a3d74fab5f3a9fd659b6e357233b
SHA3-384: 0779e0512f86be17246445330f1b9a505965c89614335e1f4817a8bf9c3dbead1ef7eb525992ad6a0835d09a2791bd2d
PS C:\Users\raeba\OneDrive\Desktop\Code\UMGC\SDEV300\L4>

```

Hash	Type	Result
89183897137f7fdea84285db1f9fe235	Unknown	Not found.
ebb61f93e2ebb8c3085c7a16f517aba847cfbd002685554f205af3bc7f1d4db6	Unknown	Not found.
40a919960e9ec180a2c47859c013c4f0bf0ccbd49b054b709affd994cce9426cb1feb0e17485448434d0023cf3ec7edb05948323aac8f3eb5f9a2ba3fa462b5a	Unknown	Not found.
555d2d02fb41c12f394db1dba03e44c73d24e62ab15ab47441908dbb5f834b8531b480d4b0e5d1bd9fe2308b3189b71504f3afac01d545e10e3795c33e50378b	Unknown	Not found.
4b6aa914dc5ee477bf580ae0b6b10d00ca0701d54a26af1d2113a344c158157f	Unknown	Not found.
ddbd2deb9fae50aae081c21b093a6f63192f85ce	Unknown	Not found.
b'\x19C\xab\xc1\xbd\xe7\xc9cc\xe2\xfc\xde'	Unknown	Unrecognized hash format.
b'\xfc\xc86\xb7\xb5N\xdf\x81-\xf8\n\xc7'	Unknown	Unrecognized hash format.
a28f6298f870a1792c7960d5e155a3d74fab5f3a9fd659b6e357233b	Unknown	Not found.
0779e0512f86be17246445330f1b9a505965c89614335e1f4817a8bf9c3dbead1ef7eb525992ad6a0835d09a2791bd2d	Unknown	Not found.

### Test 3

Password Input = **admin2021**

Passwords:

- MD5: **81fccaf9f00a8441b77b18fa2c8010f4**
- SHA256:  
**43dc6cec56fb974e5535b14198088a2de22e8e3933f4dd0c390651c033a55283**
- SHA512:  
**3ee32c1ec94d18ecca118b5eb6acbfe6fa18fb080e7f1822fc7358ffe38d0f1f2c04f951c32b00861d1509e0e260bdbc7e4ea978e4c17a12f8204cb7e73d6965**

4. BLAKE2B:  
**8c9b910a1f382e7eaec0f64bbdfc512298c691f09dbc372ecd8036b9013e58079b7b44d40372b918c41200812f48a3316b5903ddd71d97e753a33ffe11b9b595**
5. BLAKE2S:  
**e0aa79a9cd1ddc141d0eeb573af1ce5d98fe3fbdf5a8ea196e92edef868be9e3**
6. SHA1: **2a4941c7c24121246a53f121864bfb56fc2efd3c**
7. SHAKE128: **b'@\xdf\x93\x08&J\x1dY7\x1b\xc7T'**
8. SHAKE256: **b'&\xd5\xa4\xff\xe4\xbb\x0f\x90\xfb\x16\xb7\xdc'**
9. SHA3-224: **25afeb72a846fbaae5d5c0fe2de976e8e6d05b51dbf48b3c8731086c**
10. SHA3-384:  
**0c825d2658ccb28159cc28409e3a33b7bd64fa720b0ac511c02cfaf1f694e117a82823ff1709787c9e12506091e6be1b**

```
C:\Users\raeba\OneDrive\Desktop\Code\UMGC\SDEV300\L4>
Enter a password to encode: p1-hE7e37umru?l0Rl$u
Generating 10 passwords:

MD5: 89183897137f7fdea84285db1f9fe235
SHA256: ebb61f93e2ebb8c3085c7a16f517aba847cfd00268
1d4db6
SHA512: 40a919960e9ec180a2c47859c013c4f0bf0ccbd49b0
e9426cb1feb0e17485448434d0023cf3ec7edb05948323aac8f
2b5a
BLAKE2B: 555d2d02fb41c12f394db1dba03e44c73d24e62ab1
f834b8531b480d4b0e5d1bd9fe2308b3189b71504f3afac01d5
0378b
BLAKE2S: 4b6aa914dc5ee477bf580ae0b6b10d00ca0701d54a
158157f
SHA1: ddbd2deb9fae50aae081c21b093a6f63192f85ce
SHAKE128: b'\x19C\xab\xc1\xbd\xe7\xc9cc\xe2\xfc\xde
SHAKE256: b'\xfc\xc86\xb7\xb5N\xdf\x81-\xf8\n\xc7'
SHA3-224: a28f6298f870a1792c7960d5e155a3d74fab5f3a9

SHA256: 43dc6cec56fb974e5535b14198088a2de22e8e3933f4dd0c390651c033a55283
SHA512: 3ee32c1ec94d18ecca118b5eb6acbfe6fa18fb080e7f1822fc7358ffe38d0f1f2c04f951c32b00861d1509e0e260bdbc7e4ea978e4c17
BLAKE2B: 8c9b910a1f382e7eaec0f64bbdfc512298c691f09dbc372ecd8036b9013e58079b7b44d40372b918c41200812f48a3316b5903ddd71d
BLAKE2S: e0aa79a9cd1ddc141d0eeb573af1ce5d98fe3fbdf5a8ea196e92edef868be9e3
SHA1: 2a4941c7c24121246a53f121864bfb56fc2efd3c
SHAKE128: b'@\xdf\x93\x08&J\x1dY7\x1b\xc7T'
SHAKE256: b'&\xd5\xa4\xff\xe4\xbb\x0f\x90\xfb\x16\xb7\xdc'
SHA3-224: 25afeb72a846fbaae5d5c0fe2de976e8e6d05b51dbf48b3c8731086cSHA3-384: 0c825d2658ccb28159cc28409e3a33b7bd64fa720
91e6be1b
PS C:\Users\raeba\OneDrive\Desktop\Code\UMGC\SDEV300\L4>
```

Hash	Type	Result
81fccaf9f00a8441b77b18fa2c8010f4	Unknown	Not found.
43dc6cec56fb974e5535b14198088a2de22e8e3933f4dd0c390651c033a55283	Unknown	Not found.
3ee32c1ec94d18ecca118b5eb6acbfef6fa18fb080e7f1822fc7358ffe38d0f1f2c04f951c32b00861d1509e0e260bdb7e4ea978e4c17a12f8204cb7e73d6965	Unknown	Not found.
8c9b910a1f382e7aaec0f64bbdfc512298c691f09dbc372ecd8036b9013e58079b7b44d40372b918c41200812f48a3316b5903ddd71d97e753a33ffe11b9b595	Unknown	Not found.
e0aa79a9cd1ddc141d0eeb573af1ce5d98fe3fbd5a8ea196e92edef868be9e3	Unknown	Not found.
2a4941c7c24121246a53f121864bfb56fc2efd3c	Unknown	Not found.
b'@\xdf\x93\x08&j\x1dy7\x1b\xc77'	Unknown	Unrecognized hash format.
b'&\xd5\xa4\xff\xe4\xbb\x0f\x90\xfb\x16\xb7\xdc'	Unknown	Unrecognized hash format.
25afeb72a846fbaae5d5c0fe2de976e8e6d05b51dbf48b3c8731086c	Unknown	Not found.
0c825d2658ccb28159cc28409e3a33b7bd64fa720b0ac511c02cfaf1f694e117a82823ff1709787c9e12506091e6be1b	Unknown	Not found.

Color Codes: Green Exact match, Yellow Partial match, Red Not found.