Linux Passwords

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passwd

```
joeb:x:1000:1000:Joe Bloggs:/home/joeb:/bin/bash
```

/etc/passwd stores information about users for logins.

Passwords are not stored in it.

Historically passwords were stored in the `x` part.

All users have read (but not write) access to passwd.

Shadow passwords are now used instead.

shadow

```
joeb:salt+hashedpasswordhere:17895:0:99999::::
```

/etc/shadow stores users hashed passwords.

Normal users cannot read the file, only root users.

Not perfect but another layer of security.

Why not just do this to passwd?

Hashing passwords

```
$1$ie$sVzlF54.Tz0JuVRDJ3PiK.
```

1 means MD5 was used. We usually now use SHA512, and 1 becomes 6.

ie is the salt. It makes dictionary cracking more difficult.

Rest is hashed password, but with some techniques like key stretching added.