

# Fixing root filesystem errors with fsck on NixOS

If you run into an error like this:

```
An error occurred in stage 1 of the boot process, which must mount the root filesystem on
`/mnt-root` and then start stage 2. Press one of the following keys:
```

```
r) to reboot immediately
*) to ignore the error and continue
```

Then you can fix it like this:

1. Boot into a live CD/DVD for NixOS, or some other environment that has `fsck` installed, but *not* your installed copy of NixOS (as that will mount the root filesystem) ([source](#))
2. Run `fsck -yf /dev/sda1` where you replace `/dev/sda1` with your root filesystem. ([source](#))
  - If you're on a (KVM) VPS, it'll probably be `/dev/vda1`. If you're using LVM (even on a VPS), then you need to specify your logical volume instead (eg. `/dev/vg_main/lv_root`, but it depends on what you've named it).

The above command will automatically agree to whatever suggestion fsck makes. **This can technically lead to data loss!**

Many distributions will give you an option to drop down into a shell from the error directly, but NixOS does not do that. In theory you could add the `boot.shell_on_fail` flag to the boot options for your existing installation, but for reasons that I didn't bother debugging any further, the installed `fsck` was unable to fix the issues.

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