- `jdbc:h2:file:/opt/db/mydb;LOG=0`

Filesystem tuning

The H2 database might become corrupted [1] in case of power failure. In case of file-backed database (e.g. mostly or most persistent), the following database mount options can improve database reliability, reducing the database corruption probability at the expense of reduced performance and lifetime of the flash storage devices:

- `data=journal` : From EXT4(5) Linux MAN Page:

  > All data is committed into the journal prior to being written into the main filesystem.

  This setting only applies to ext3/ext4 filesystems.

- `sync` : From mount(8) Linux MAN Page:

  > All I/O to the filesystem should be done synchronously. In case of media with limited number of write cycles (e.g. some flash drives) “sync” may cause life-cycle shortening.

After some long running tests [1], it appears that the `data=journal` option alone is enough to reduce corruption probability (no corruption observed during the test).

[1] https://github.com/eclipse/kura/issues/2169

In order to apply the options above, perform the following steps:

1 - Edit the `/etc/fstab` row for the filesystem containing the database file, appending the desired options to the fourth column, using comma as separator.

For example on Raspbian an `/etc/fstab` file with `data=journal` enabled will look like the following:

```
proc            /proc           proc    defaults          0       0
PARTUUID=3920f25c-01  /boot           vfat    defaults          0       2
PARTUUID=3920f25c-02  /               ext4    defaults,noatime,data=journal  0       1
# a swapfile is not a swap partition, no line here
#   use  dphys-swapfile swap[on|off]  for that
```

2 - If the database resides on the root filesystem, the `data=journal` option must be specified in the kernel command line as well, by appending `rootflags=data=journal`

On Raspbian this can be done by editing the `/boot/cmdline.txt` file:

```
dwc_otg.lpm_enable=0 console=serial0,115200 console=tty1 root=PARTUUID=3920f25c-02 rootf
stype=ext4 elevator=deadline fsck.repair=yes rootwait rootflags=data=journal
```