

# Configuring the Shell

## Exercises: Variables, Environment & Local Variables, History, Bash Startup Scripts

### 1. Local vs Environment Variables

- In a Bash shell, set a local variable `LOCALVAR=123` without `export`. Run the `bash` command to start a new shell and try to `echo $LOCALVAR`. What happens?
- Exit the current shell.
- Export `LOCALVAR` and repeat. Explain the difference.

### 2. Using history Commands

- Use `history` to display the last 10 commands you ran.
- Try `!n` where `n` is a command number from history to rerun a command. How does this work?
- Use `history | grep grep` to search your command history for specific entries.

### 3. Bash Startup Scripts

- Explain the difference between `~/.bashrc`, `~/.bash_profile`, and `/etc/profile`.
- Add a simple alias like `alias ll='ls -la'` to your `.bashrc` file. Restart the shell and verify it works.
- Write a line in `.bash_profile` that exports an environment variable `MY_ENV_VAR` and verify it in a new login shell.
- List all variables using the `set` command.
- What is listed when you run the `env` command?