max planck institut
informatik

Universität
des
Saarlandes
FR Informatik

Uwe Waldmann

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Tutorials for “Unix for Advanced Users”
Exercise sheet 11

Exercise 11.1:
Do the two commands

```
perl -ne 's/\\a\b/\\A/g; print $_;'
```

and

```
perl -ne 's/\\a(\W|$)/\\A$1/g; print $_;'
```

differ? If so: why?

Exercise 11.2:
Write a filter that takes the output of the Unix `cal` command and converts it into a “European style” calendar, that is, with weeks ranging from Monday to Sunday rather than from Sunday to Saturday.

Exercise 11.3:
Write a Perl script that sorts a file linewise taking the last field on each line as the sort key. Fields are separated by commas (and may be empty), the number of fields per line may vary, lines containing only one field (i. e., no comma) are permitted.

Exercise 11.4:
Solve the same problem as in the last exercise using `sed` (or using those Perl commands that are also found in `sed`), the Unix `sort` utility and the shell.

Exercise 11.5:
Given a Perl regex r, are the two regexes r`{1,2}` and rr`|`r equivalent in all contexts? Give a proof or a counterexample.