



```

name: master
log: c:\hidrive\o7\Stata GUGM-2021-06\logs/example.xlsx-file.smcl
log type: smcl
opened on: 20 Jul 2021, 09:03:25

```

```

1 .
2 .
3 .
4 . **# HEADER
5 . **=====
6 . type ./header.txt
  /*=====

```

```

file: example {do|ini|xlsx}-file.do
author: Sven O. Spiess, sven[dot]spiess[at]dpc-software[dot]de
date: 25jun2021
version: 1

```

```

project: example working w/ external configurations in Stata,
         German Stata Conference '21

```

```

description:
demonstration of using external configuratrions in .do-, .ini-, & .xlsx-files
with example of grading fictitious single-choice exam data

```

```

external dependencies:
-none-

```

```

changelog:
=====
n/a

```

```

legend: ! = fixed; + = added; * = changed; - = removed
=====*/

```

```

7 .
8 .
9 .
10.
11.
12. **#1. Load Settings (from .do)
13. **=====
14. frame create settings
15. frame change settings
16.
17. import excel "./config/settings.xlsx", ///
    > cellrange(A10:C104) firstrow case(lower) clear
    (3 vars, 94 obs)
18.
19. keep if !missing(name)
    (71 observations deleted)

```

```

20.      // delete "blank" lines without setting names
21.
22.
23. forvalues line = 1/`c(N)' {
24.     global `=name[`line']' = value[`line']
25. }

26.
27.
28.
29.
30.
31.
32.
33.
34. **#2. Compute Grades from Exam Data:
35. *=====
36. macro list rawdata
37.     rawdata:      ./data/exam shakespeare-101 2021.dta

38.
39.
40. do ./code/grading

41. // actual grading of fictitious single-choice exam data
42.
43.
44. ***#2.1 Translate answers to points
45. **-----
46. forvalues i = 1/$question_ct {
47.     2.
48.     generate byte points_question_`i' = ///
49.     > (question_`i' == "{question_`i'}") * $question_pt
50.     3. }

51.
52.
53.
54. egen int total = rowtotal(points_question_*)

55.
56.
57. generate percent = total/($question_ct*$question_pt) * 100

58. format percent %6.2f

59.
60.
61.
62.
63. ***#2.3 Convert to grades

```

```

64. **-----
65.
66. quietly: generate grade = ""

67.
68.
69. if "$grading" == "points" {
70.     local criterion = "total"
71.     local unit      = "pts."
72. }

73.
74. else {
75.     local criterion = "percent"
76.     local unit      = "%"
77. }

78.
79. local i = 1

80. foreach value of global $grading {
81.     2. local grade :word `i' of $grades
82.     3.
83.     display " {res}`value' {txt} `unit' -> grade: {res}`grade'"
84.     4.
85.     quietly: replace grade = "`grade'" if (`criterion' >= `value') & missing(gr
86.     > ade)
87.     5.
88.     local ++i
89.     6. }
90.     % -> grade: A
91.     % -> grade: B
92.     % -> grade: C
93.     % -> grade: D
94.     % -> grade: F

84.
85.
86. assert !missing(grade) // check: each participant assigned a grade

87. exit

end of do-file

88.
89.
90.
91.
92.
93.
94.
95.
96. **#3. Export anonymous grades list:
97. *=====
98. label var ID      "Student ID"

99. label var total   "Total points"

100 label var grade   "Overall grade"

```

```

101
102 export excel ID total grade using "$gradeslist", ///
    > firstrow(varlabels) replace
    file ./results/grades shakespeare-101 spring21.xlsx saved
103
104
105
106
107
108
109
110
111 **#4. Plot Grade Distribution
112 *=====
113 preserve

114     gen one = 1

115     collapse (count) freq=one , by(grade)

116
117     sum freq

```

Variable	Obs	Mean	Std. dev.	Min	Max
freq	5	3	1.224745	2	5

```

118
119     graph bar (asis) freq, over(grade, label(labcolor($text_color))) ///
    >     title(`"Grade Distribution {it:$title}"', color($text_color) span) ///
    >     ytitle("") ///
    >     ylabel(, angle(0) labcolor($text_color)) ///
    >     bar(1, color($bar_color)) ///
    >     blabel(bar, pos(inside) color(white)) ///
    >     caption("{it:N} = `r(sum)'"', color($text_color) position(5)) ///
    >     graphregion(color(white))

120
121     graph export "./results/barplot grades $shorttitle $term.svg", replace
    file ./results/barplot grades shakespeare-101 spring21.svg saved as SVG format

122 restore

123
124
125
126
127 *****
128 log close master
    name: master
    log: c:\hidrive\o7\Stata GUGM-2021-06\logs/example.xlsx-file.smcl
    log type: smcl
    closed on: 20 Jul 2021, 09:03:27

```
