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1  #!/usr/bin/env lua
2  -- vim: filetype=lua ts=2 sw=2 et:
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10 local the, help= {}, {}
11 tweak: explore the world better, explore the world for good.
12 (c) 2022, Tim Menzies, opensource.org/licenses/Fair
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22 USAGE:
23 alias twk="lua tweak.lua "
24 twk [OPTIONS]
25
26 OPTIONS:
27 --cohen -c cohen = .35
28 --K -K manage low class counts = 1
29 --M -M manage low evidence counts = 2
30 --far -F how far to go for far = .9
31 --p -p coefficient on distance = 2
32 --seed -S seed = 10019
33 --some -s sample size for distances = 512
34 --stop -T how far to go for far = 20
35 --min -m size of min space = .5
36 --best -B best percent = .05
37
38 OPTIONS (other):
39 --dump -d dump stack+exit on error = false
40 --file -f file name = ./etc/data/auto93.csv
41 --help -h show help = false
42 --rnd -r rounding numbers = %5.3f
43 --todo -t start up action = nothing
44 ]]
45
46 local cells,coerce,csv,fmt,goalp,lessp,lt
47 local median,mode,nump,oo,o,obj,per,push,sort,string2thing
48
49 help:gsub("\n ([-|]|)([^\%s+])\%s+([-|^\%s+])\n\%s+([^\%s+])".function(f1,k,f2,x)
50 for n,flag in ipairs(arg) do if flag==f1 or flag==f2 then
51 x = x=="false" and "true" or x=="true" and "false" or arg[n+1] end end
52 the(k) = x end) -- not ready yet. full of strings that need 'string2thing'
53
54
55 -- (c) 2022, Tim Menzies, opensource.org/licenses/Fair
56 -- Usage of the works is permitted provided that this instrument is
57 -- retained with the works, so that any entity that uses the works is
58 -- notified of this instrument. DISCLAIMER: THE WORKS ARE WITHOUT WARRANTY.

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223 --- DEMOS
224 ---
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226 local go,no,fails,ok,main={}, {}, 0
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228 function main( all,b4)
229 all={}; for k,_ in pairs(go) do push(all,k) end
230 for _,x in pairs(the.todo=="all" and sort(all) or (the.todo)) do
231     b4={}; for k,v in pairs(the) do b4[k]=v end
232     math.randomseed(the.seed)
233     if go[x] then print(x); go[x]() end
234     for k,v in pairs(b4) do the[k]=v end end end
235
236 function ok(test,msg)
237     print("", test and "PASS" or "FAIL ", msg or "")
238     if not test then
239         fails= fails+1
240         if the.dump then assert(test,msg) end end end
241
242 function go.rogue( ok)
243     ok={}; for _,k in pairs( "G", "_VERSION", "arg", "assert", "collectgarbage",
244         "coroutine", "debug", "dofile", "error", "getmetatable", "io", "ipairs",
245         "load", "loadfile", "math", "next", "os", "package", "pairs", "pcall",
246         "print", "rawequal", "rawget", "rawlen", "rawset", "require", "select",
247         "setmetatable", "string", "table", "tonumber", "tostring", "type", "utf8",
248         "warn", "xpcall") do ok[k]=true end
249     for k,v in pairs(_ENV) do if not ok[k] then print("?",k, type(v)) end end end
250
251 function go.eg() for row in csv(the.file) do oo(row) end end
252 function go.rows() oo(Rows():load(the.file).cols.y) end
253
254 -----
255
256 --- START
257 ---
258
259 for k,v in pairs(the) do the[k] = string2thing(v) end
260 if the.help then print(help) else main() end
261 go.rogue()
262 os.exit(fails)
263

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