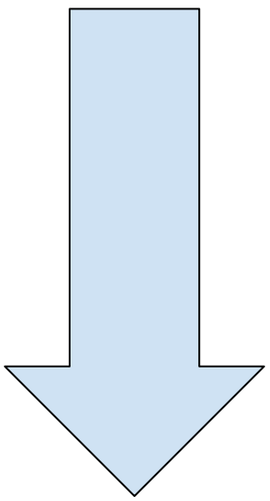
dataset-sim()

GENERATING ARTIFICIAL DATA
INPUT:
n_sets → number of samples
p → underlying probability of admission
n_applicants → number of applicants / sample size
OUTPUT:
matrix → containing binary variable (0,1)

Creating data matrices
(1 per gender)
with regards to underlying scenario



Scenario	H0	Description
1.1.1	FALSE	parameter of interest: sample size effect size: 0.1 sample size: 300 / 300
1.1.2	FALSE	parameter of interest: sample size effect size: 0.3 sample size: 300 / 300
1.2	FALSE	parameter of interest: effect size effect size: 0.1 sample size: 100 / 100
1.3	FALSE	parameter of interest: difference in samples effect size: 0.1 sample size: 200 / 800
2.1	TRUE	parameter of interest: sample size effect size: 0 sample size: 300 / 300

simulation testing()

TESTING PROCEDURE
INPUT:
matrix 1 / matrix 2 → input matrices generated from dataset-sim()
alpha_lvl → underlying alpha level for tests
NullHyp → H0 TRUE/FALSE
PROCESS:
- running **Z-test** and **Chi_squared Tes**t
- conducting power/size from resulting p-values
OUTPUT:
p-values
power values / size values
processing information (i.e., removed NaN)