Height

Min:57, Max:78

Handspan

Min:16, Max:25

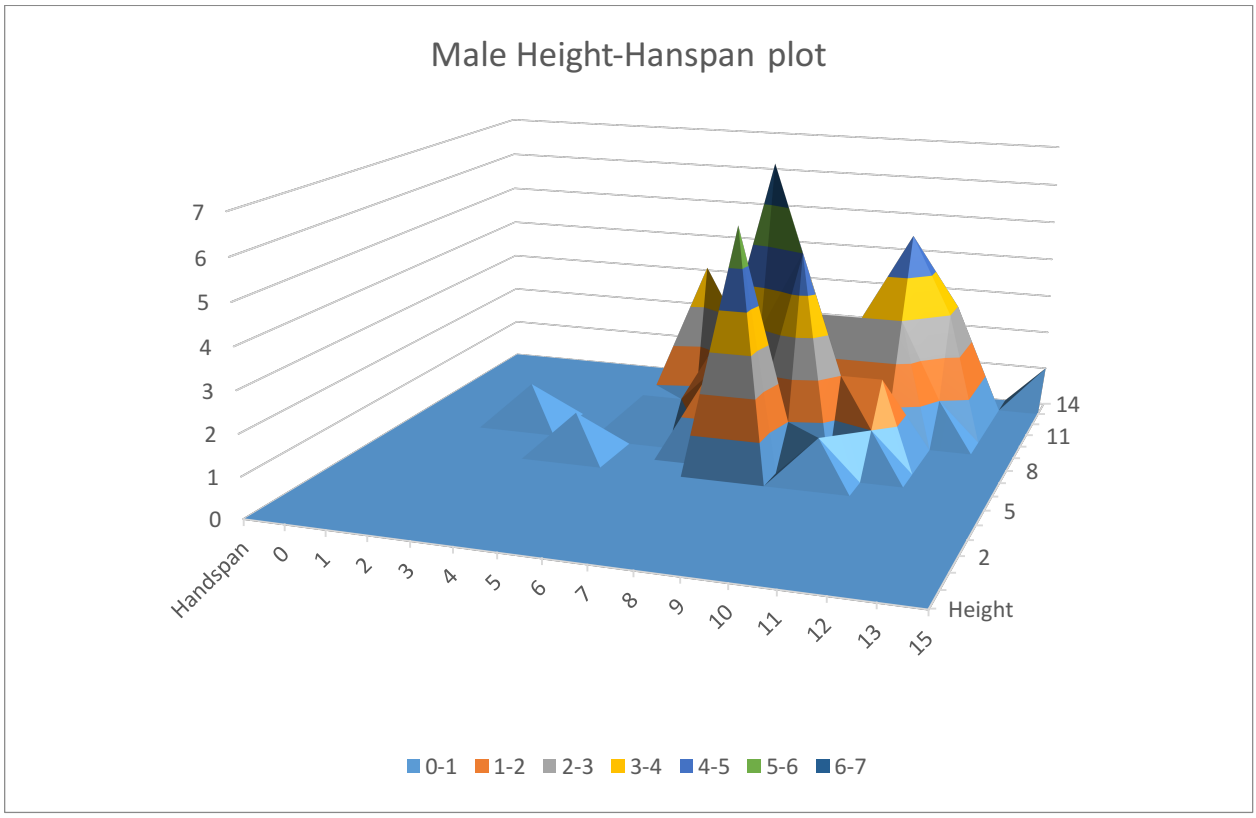
HISTOGRAM input

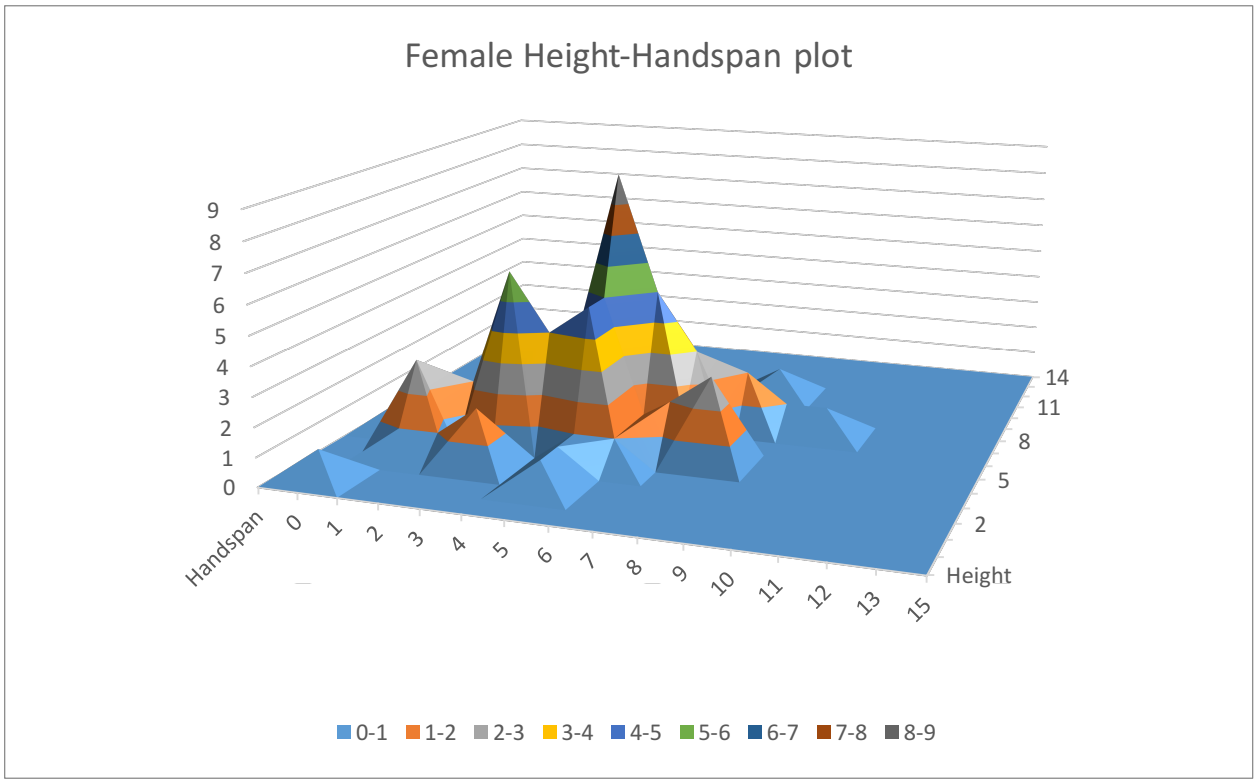
```
**************************************************************************
                    MALE   HISTOGRAM
**************************************************************************
[[ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  0.  0.  0.  1.  0.  0.  0.  6.  0.  1.  0.  0.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  2.  0.  1.  0.  1.  0.  0.]
 [ 0.  0.  1.  0.  0.  1.  1.  2.  3.  5.  2.  2.  0.  0.]
 [ 0.  0.  0.  0.  0.  1.  0.  3.  7.  0.  1.  1.  0.  0.]
 [ 0.  0.  0.  0.  0.  0.  4.  2.  2.  3.  3.  3.  1.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  0.  2.  0.  0.  5.  3.  0.]
 [ 0.  0.  0.  0.  0.  0.  1.  1.  0.  0.  1.  1.  3.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  1.]]


**************************************************************************
                    FEMALE   HISTOGRAM
**************************************************************************
[[ 1.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  0.  0.  0.  0.  1.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  1.  1.  2.  0.  1.  0.  0.  0.  0.  0.  0.  0.  0.]
 [ 0.  3.  0.  1.  0.  1.  1.  0.  0.  0.  0.  0.  0.  0.]
 [ 1.  0.  2.  6.  4.  5.  1.  2.  3.  0.  0.  0.  0.  0.]
```

```
[ 0.  0.  0.  0.  2.  5.  1.  1.  0.  0.  0.  0.  0.  0.  0.]
[ 0.  0.  1.  2.  2.  9.  5.  3.  0.  0.  0.  0.  0.  0.  0.]
[ 0.  0.  0.  0.  2.  4.  2.  2.  2.  1.  1.  0.  0.  0.  0.]
[ 0.  0.  0.  1.  1.  1.  1.  0.  0.  0.  0.  0.  0.  0.  0.]
[ 0.  0.  0.  1.  0.  1.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
[ 0.  0.  0.  0.  0.  0.  0.  0.  1.  0.  0.  0.  0.  0.  0.]
[ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
[ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
[ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
[ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]]
```

HISTOGRAM plot

Please find the attached excel sheet for the histogram plot.




Female Height-Handspan plot
9
8
7
6
5
4
3
2
1
0
Handspan
0
1
2
3
4
5
6
7
8
9
10
11
12
13
15
14
11
8
5
2
Height
0-1
1-2
2-3
3-4
4-5
5-6
6-7
7-8
8-9

Male Mean vector

[71.28846154 22.30128205]

Male covariance matrix

[[7.08778721 1.80157343]
 [1.80157343 2.06064769]]

Female Mean vector

[65.25280899 19.6011236]

Female covariance matrix

[[7.75780452 1.65170135]
 [1.65170135 1.75670327]]

RESULTS

SAMPLE SET	Male result from Bayes Classifier	Female result from Bayes Classifier	RESULT
69,17.5	0.047221	0.048207	Female
66,22	0.047221	0.048207	Female
70,21.5	0.047221,	0.048207	Female
69,23.5	0.047221	0.048207	Female

SAMPLE SET	Male probability	Female probability	RESULT
69,17.5	0	0	Can’t determine
66,22	1	1	Can’t determine
70,21.5	0	0	Can’t determine
69,23.5	0	0	Can’t determine

OBSERVATION:

Bayes Classifier is better to derive the results.