

Practice 17 – nested while loop

Note: Write following codes using nested while loop. Some of these codes already discussed in class and codes are shared.

Tasks: Write codes to generate following outputs:

a. Sample Run:

```
N: 5
K: 3
1      1
1      2
1      3
2      1
2      2
2      3
3      1
3      2
3      3
4      1
4      2
4      3
5      1
5      2
5      3
```

b. Sample Run:

```
Rows: 10
Columns: 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
```

c. Sample Run:

```
N: 5
K: 3
{(1,1),(1,2),(1,3),(2,1),(2,2),(2,3),(3,1),(3,2),(3,3),(4,1),(4,2),(
4,3),(5,1),(5,2),(5,3)}
```

d. Sample Runs:

Rows: 8

Columns: 3

1 2 3

2 3 4

3 4 5

4 5 6

5 6 7

6 7 8

7 8 9

8 9 10

Rows: 3

Columns: 5

1 2 3 4 5

2 3 4 5 6

3 4 5 6 7

e. Sample Run:

Rows:5

Columns:6

1

2

3

4

5

f. Sample Run:

Rows:5

1

2

3

4

5

g. Sample Run: (Run inner loop for spaces reverse of outer loop)

Rows:5

1

2

3

4

5

h. Sample Run:

Rows:5

Columns:6

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

5 5 5 5 5

i. Sample Run: (Use two inner loops in one outer loop)

Rows:3

Columns:4

1 1 1 1

a a a a

2 2 2 2

b b b b

3 3 3 3

c c c c

j. Sample Run:

Rows:3

Columns:4

1 2 3 4

a b c d

2 3 4 5

b c d e

3 4 5 6

c d e f