Programming in C

Practical Exercises

Matrices - 1

Your code must:

1) Create a square matrix (i.e. n x n) of integers
2) Set to 1 the positions in the diagonal of the matrix and 0 otherwise
3) Print the whole matrix

Matrices - 2

Your code must:

1) Create **two** square matrices (i.e. n x n) of integers, A and B
2) Set all positions of A with 1s and all positions of B with 2s
3) Create another matrix C=A+B
4) Print the matrix C

Matrices - 3

Your code must:

1) Create a square matrix (i.e. n x n) of integers.
2) Set the first column and first row of the matrix with 1s
3) Update the remaining positions of the matrix with the sum of the values of its neighbors
4) Print the matrix

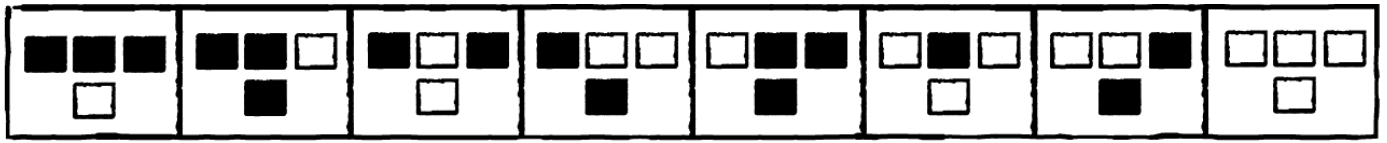
Matrices - 4

Your code must:

1)Create a square matrix (i.e. n x n) of integers.

2)In the first row, set **only** the middle position with 1, and the rest with 0

3)Update the remaining rows of the matrix with the following rule (black = 1, white = 0)



0 1 0 1 1 0 1 0

Use this code snippet to print the matrix

```
for(i = 0; i < n; i++){
    for(j = 0; j < n; j++){
      if(h_matrix[i][j] == 1)
        printf("\u2610");
      else
        printf("\u25A0");
    }
  printf("\n");
  }
```