```matlab
clear all;
close all;
clc;

% Roll No: 2401030116
% Name: Nishika
% Section: B12

% Creating a 4x4 matrix with
% random integers between -5 and 5
A = randi([-5 5],4,4);
disp('Matrix A:');
disp(A);

% Creating diagonal matrix
% using diagonal elements of A
B = diag(diag(A));
disp('Diagonal Matrix B:');
disp(B);

% Extracting upper triangular
%  matrix of A
U = triu(A);
disp('Upper Triangular Matrix of A:');
disp(U);

% Extracting lower triangular matrix of A
L = tril(A);
disp('Lower Triangular Matrix of A:');
disp(L);
```

```
Matrix A:
    -3    -3     4     4
     3    -3     1     1
    -1    -4     1    -2
     5    -4    -4     0

Diagonal Matrix B:
    -3     0     0     0
     0    -3     0     0
     0     0     1     0
     0     0     0     0

Upper Triangular Matrix of A:
    -3    -3     4     4
     0    -3     1     1
     0     0     1    -2
     0     0     0     0

Lower Triangular Matrix of A:
    -3     0     0     0
     3    -3     0     0
    -1    -4     1     0
```

```
     5      -4      -4       0
```

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