Department of Computer Science
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Due Date: Monday, February 3th, 2020

2D Discrete Fourier Transform

MATLAB functions	Example
fftA = fft2(X)	Returns the two-dimensional discrete Fourier transform (DFT) of X.
X = ifft2(fftA)	Returns the two-dimensional inverse discrete Fourier transform (DFT) of X
P = angle(Z)	Returns the phase angles, in radians, for each element of complex array Z. The angles lie between ±π.

We have already noted that $F(u, v)$ is a complex number (i.e. real and imaginary parts). It is more useful to think of its MAGNITUDE (Fourier spectrum) and PHASE (phase angle) rather than its REAL and IMAGINARY parts, where:

$$F(u, v) = | F(u, v)| \, e^{j\phi(u, v)}$$

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fftB =(abs(fftA)).* exp(1i*angle(fftA));
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Let's Try!