The (PL)U Decomposition of A

Let

$$\mathrm{A} = \begin{pmatrix} -3 & -2 & -1 \\ -6 & -6 & -7 \\ -3 & -4 & -4 \end{pmatrix}.$$

Using Gaussian elimination with partial pivoting, find the $(\mathrm{PL})\mathrm{U}$ decomposition of A, where U is an upper triangular matrix and (PL) is a psychologically lower triangular matrix.