## **Daily Question**

## (due October 17, 2005)

Construct a PDA that recognizes the language over  $\{a, b\}^*$ 

$$\{w|\exists x.\ xx^{\mathcal{R}}=w\}$$

where  $x^{\mathcal{R}}$  denotes the reverse of x, as usual. You should define each component of the machine and give a brief explanation (a few sentences) explaining how it works. No proof is required.