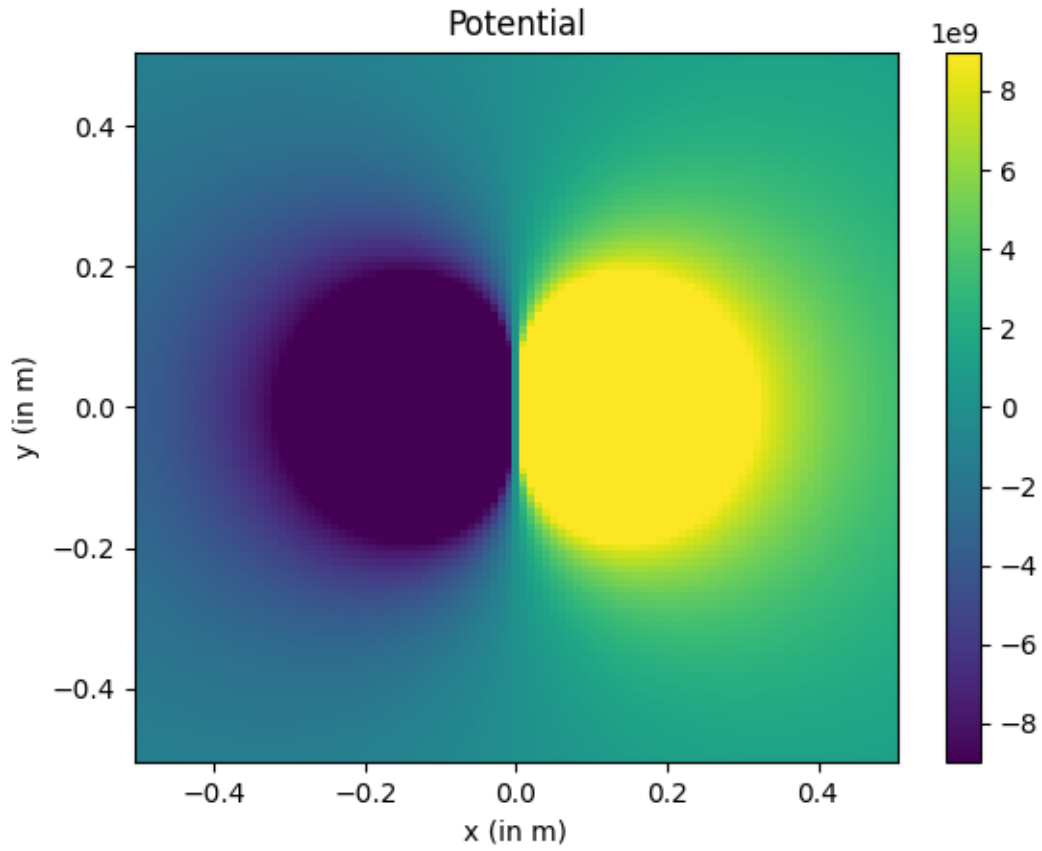
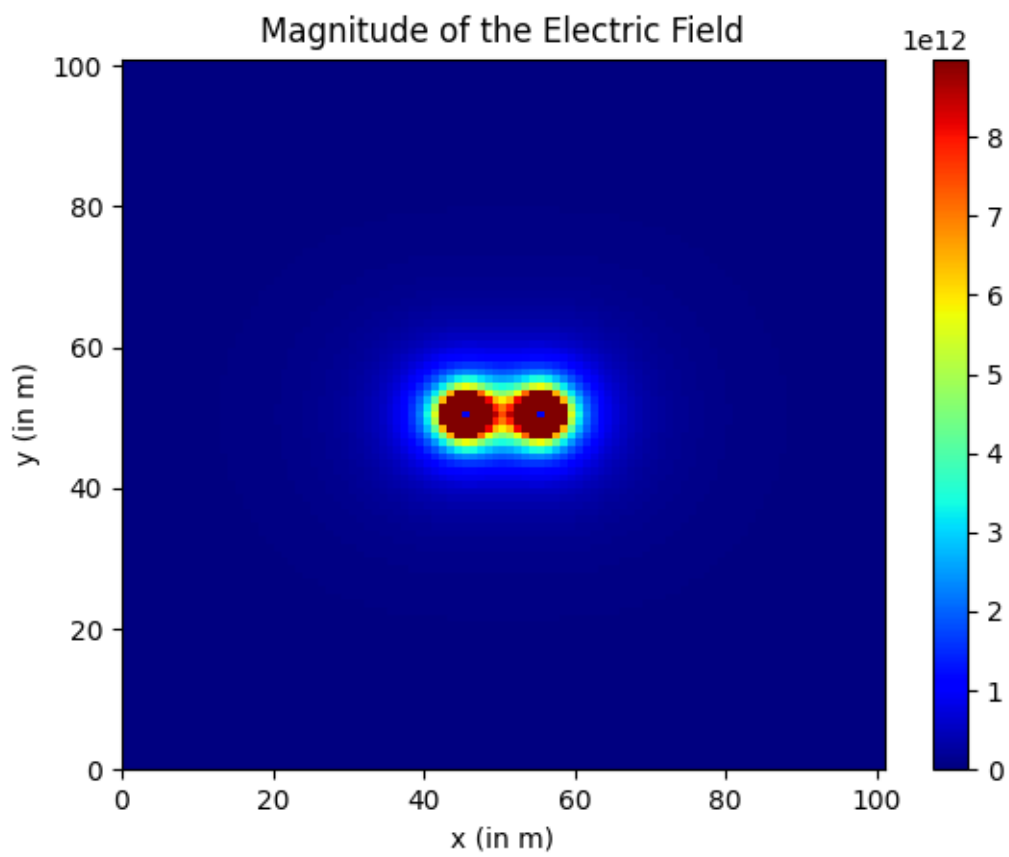


Exercise 17 (b):

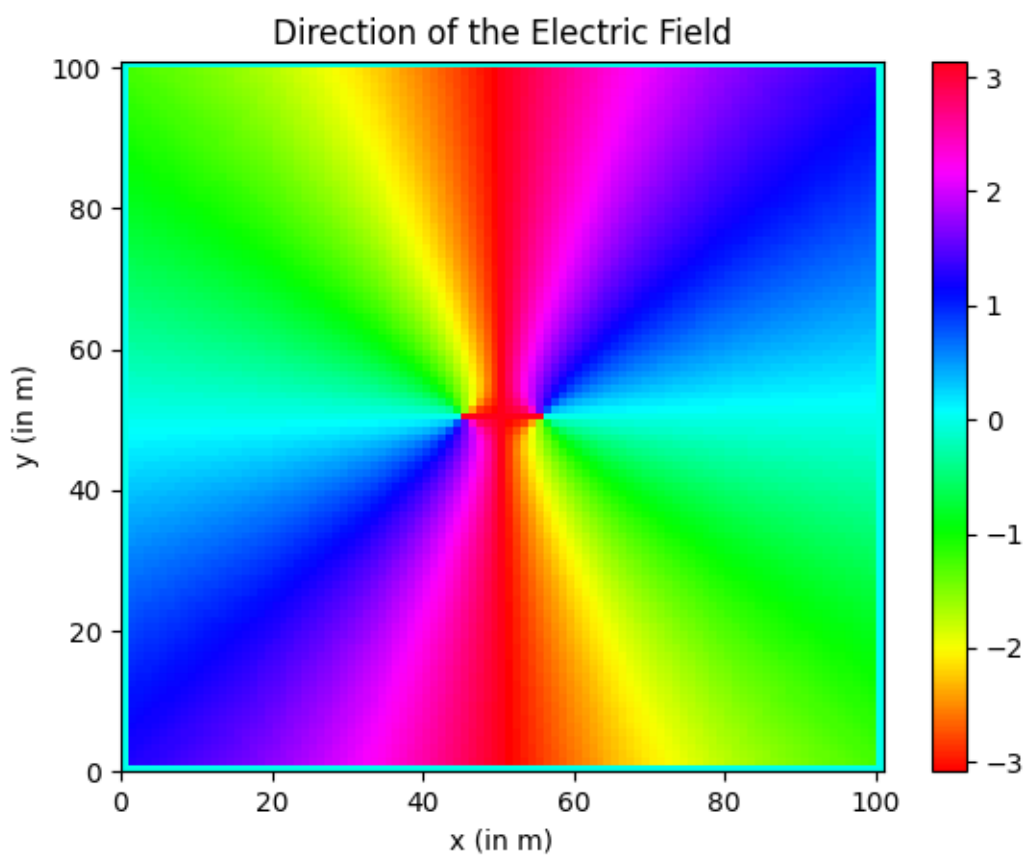
$$V(x, y) = \frac{1}{4\pi\epsilon_0} \left(\frac{1}{\sqrt{(x - 0.01)^2 + y^2}} - \frac{1}{\sqrt{(x + 0.01)^2 + y^2}} \right) \quad (1)$$



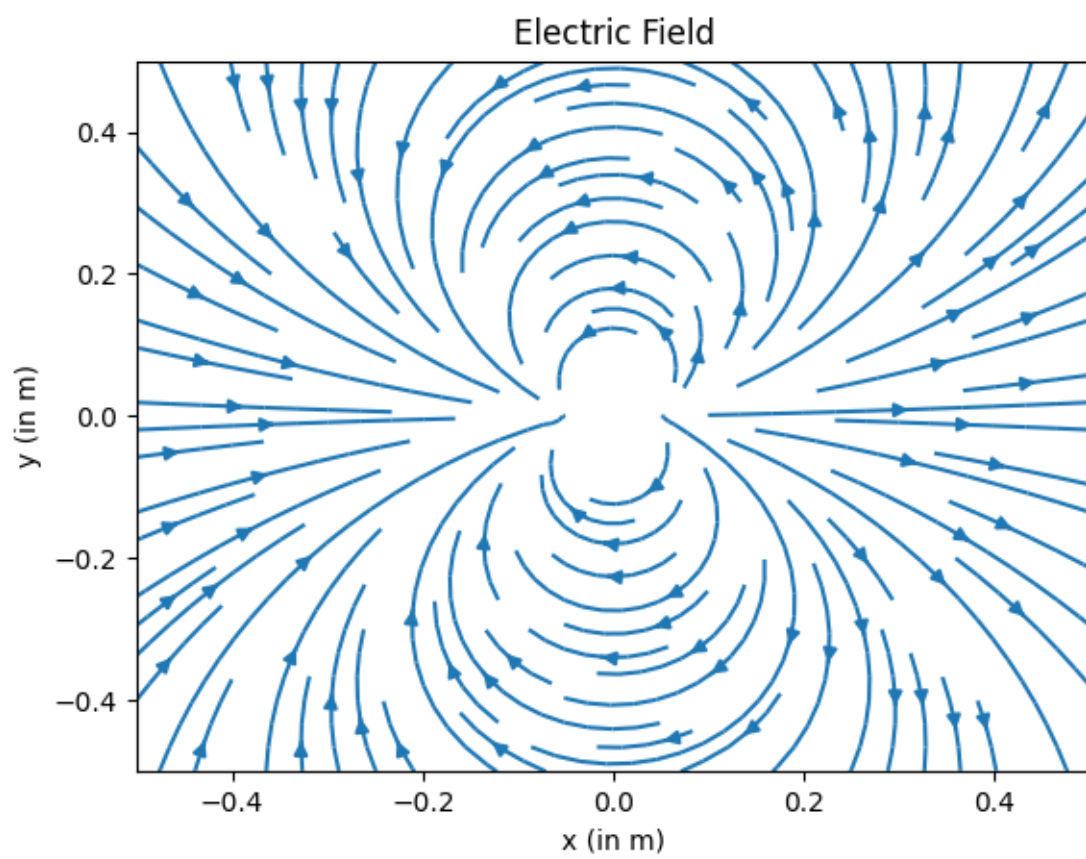
Plot of the Potential on a 1x1 m² surface



Plot of the magnitude of electric field on a $1 \times 1 \text{ m}^2$ surface



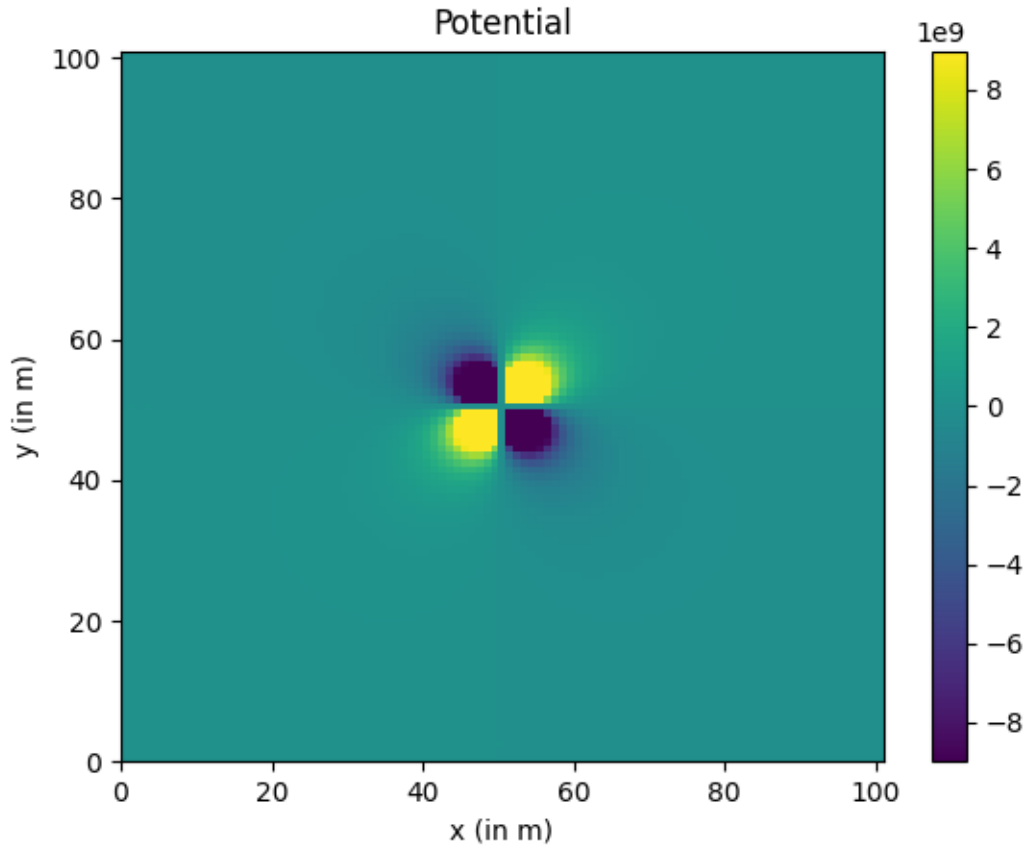
Plot of the direction of electric field on a $1 \times 1 \text{ m}^2$ surface



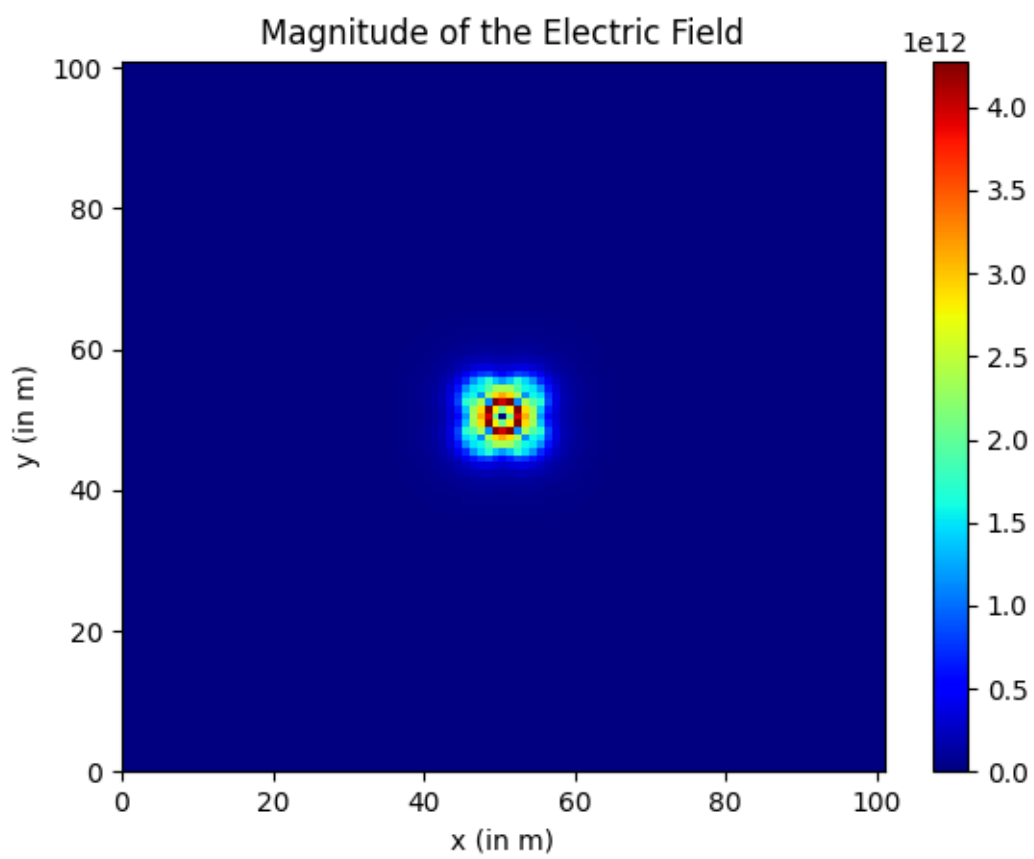
Plot of the electric field on a $1 \times 1 \text{ m}^2$ surface

Exercise 17 (c):

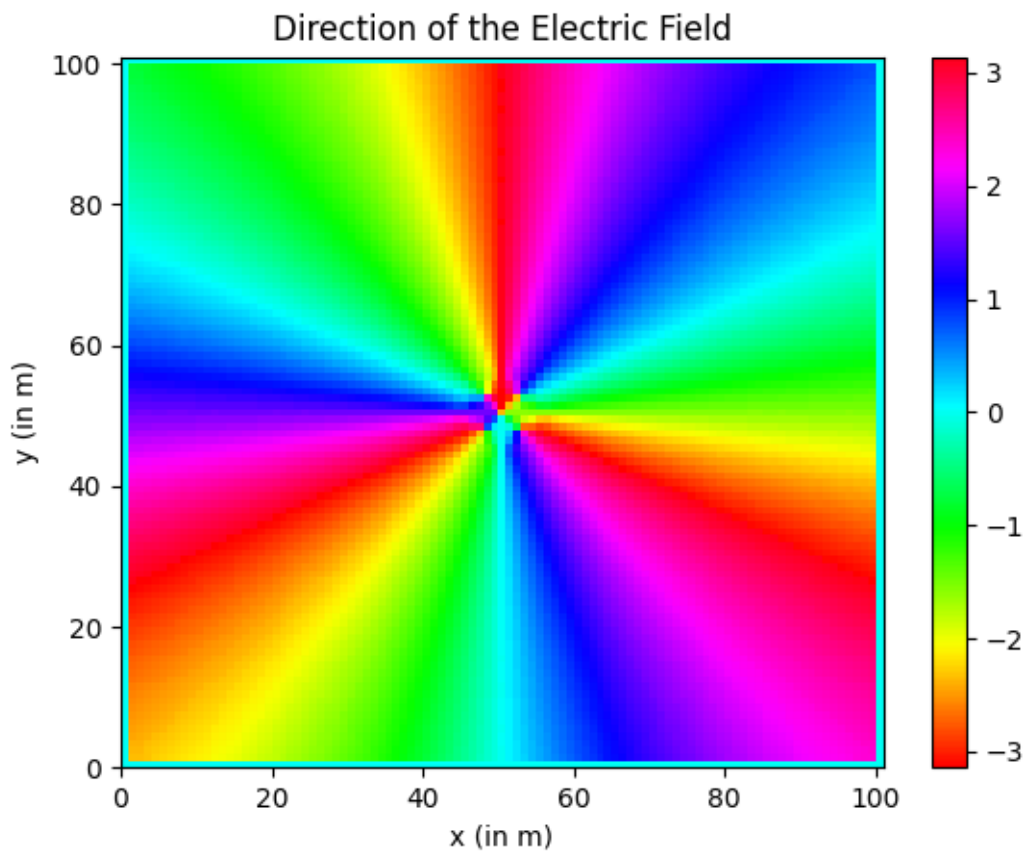
$$V(x, y) = \frac{1}{4\pi\epsilon_0} \int_{-L/2}^{L/2} dx' \int_{-L/2}^{L/2} dy' \frac{q_0 \sin(\frac{2\pi x'}{L}) \sin(\frac{2\pi y'}{L})}{\sqrt{(x-x')^2 + (y-y')^2}} \quad (2)$$



Plot of the Potential on a $1 \times 1 \text{ m}^2$ surface



Plot of the magnitude of electric field on a 1x1 m² surface



Plot of the direction of electric field on a $1 \times 1 \text{ m}^2$ surface