Instructions for Visualisation Interface:

1. **Decision Boundary Visualization:**
   - The decision boundary visualization shows how the model separates the XOR gate's inputs into two classes (0 and 1).
   - The x-axis and y-axis represent the input features (X1 and X2) of the XOR gate.
   - The contour plot represents the decision boundary learned by the model, separating the two classes.
   - Use the interactive Plotly graph to zoom in/out, pan, and explore the decision boundary.
2. **Gradio Interface for Predictions:**
   - The Gradio interface allows you to input custom values for X1 and X2 (between 0 and 1).
   - After entering the input values, click the "Predict" button to see the model's prediction for the XOR gate's output based on the given inputs.
   - The predicted output will be displayed below the input fields.

To run the code and interact with the visualization interface:

1. Ensure you have the necessary libraries installed (PyTorch, Plotly, Gradio).
2. Copy the provided code into a Python script or Jupyter Notebook.
3. Run the code to train the model, visualize the decision boundary, and launch the Gradio interface.
4. Follow the on-screen instructions in the Gradio interface to input custom values and see predictions.