To create a well-rounded and effective presentation on bank customer churn prediction using artificial neural networks, let’s first define your hypothetical target audience and then outline the presentation structure tailored to them.

### Target Audience

Given the technical nature of the topic, the target audience could be:

1. \*\*Data Science Professionals and Academics\*\*: These could be fellow researchers, data scientists in the banking sector, or faculty members in data science departments.

2. \*\*Banking Sector Executives\*\*: Senior bank executives or decision-makers who are interested in understanding how AI can reduce customer churn and improve customer retention strategies.

### Presentation Style Choices

1. \*\*For Data Science Professionals and Academics\*\*:

- Use technical language and go into depth with the methodology and algorithms.

- Include statistical validations and comparisons to establish credibility.

- Present detailed pseudocode and flowcharts.

2. \*\*For Banking Sector Executives\*\*:

- Simplify complex technical details without losing the core message.

- Focus on the implications and benefits such as improved customer retention, cost efficiency, and competitive advantage.

- Use visuals like charts and graphs to illustrate points clearly.

### Presentation Outline

#### 1. Problem Introduction and Choice of Topic

- \*\*Context\*\*: Briefly define what churn prediction is and why it’s particularly relevant in banking.

- \*\*Selection Reason\*\*: Explain why you chose this topic focusing on its relevance to current market challenges in the banking sector.

#### 2. Motivation and Challenges

- \*\*Motivation\*\*: Discuss the high costs associated with losing customers and the benefits of predictive analytics in reducing churn.

- \*\*Challenges\*\*: Outline the complexities involved in churn prediction such as imbalanced data, integrating diverse data sources, and the dynamic nature of customer behaviors.

#### 3. Data Set Detailed Description

- \*\*Data Features\*\*: Describe the types of data used (e.g., demographic, transactional, interaction data).

- \*\*Source and Volume\*\*: Mention the source of the data (real or hypothetical) and the scale of the data set.

- \*\*Privacy Concerns\*\*: Address how data privacy is maintained (e.g., anonymization).

#### 4. Comparison of Current Approaches and Justification of Chosen Approach

- \*\*Current Approaches\*\*: Briefly review existing methods like logistic regression, decision trees, and SVM used in churn prediction.

- \*\*Artificial Neural Networks (ANN)\*\*: Explain why ANN was chosen, highlighting its ability to model complex nonlinear relationships and learn from large volumes of data.

- \*\*Justification\*\*: Discuss the superiority of ANN in handling nuances and patterns in customer behavior compared to other methods.

#### 5. Solution Approach

- \*\*Data Pre-processing\*\*: Explain steps like cleaning data, handling missing values, normalizing/standardizing data.

- \*\*Model Architecture\*\*: Describe the architecture of the neural network used (layers, nodes, activation functions).

- \*\*Training Process\*\*: Discuss the training process including splitting data, training the model, and validation.

- \*\*Visuals\*\*: Use flowcharts and pseudocode to illustrate the process clearly.

#### 6. Reflection on Legal, Ethical, and Social Aspects

- \*\*Legal\*\*: Talk about compliance with data protection laws (e.g., GDPR).

- \*\*Ethical\*\*: Discuss the ethics of predictive modeling in banking, like potential biases in data and model transparency.

- \*\*Social\*\*: Reflect on the impact of churn prediction on customer trust and relationships.

#### 7. Overall Quality of Presentation

- \*\*Clarity\*\*: Ensure the presentation is clear and all technical terms are well-explained.

- \*\*Engagement\*\*: Use visuals effectively to keep the audience engaged.

- \*\*Timing\*\*: Practice to make sure each part fits within the allotted time, leaving space for questions.

### Conclusion and Q&A

Sum up the key points made in your presentation and open the floor for questions, preparing to answer potential queries about both the technical details and business implications of your study.

This structure will help you convey complex information in an accessible way, aligning with the interests and expertise of your audience.