

Bonus Task: Ethical AI Guideline for Healthcare

1. Patient Consent Protocols

- Informed Consent: Patients must be clearly informed when AI is used in diagnosis, decision support, or treatment recommendations.
- Data Usage Clarity: Patients should know how their data will be collected, stored, and analyzed.
- Right to Opt-Out: Patients must have the right to refuse AI-based processing without compromising access to standard care.

2. Bias Mitigation Strategies

- Diverse and Representative Datasets: Ensure datasets include various demographic groups (race, gender, age, disability status).
- Regular Bias Audits: Use tools (e.g., AI Fairness 360, Fairlearn) to detect and correct disparities.
- Algorithmic Rebalancing: Apply reweighing, adversarial debiasing, or oversampling to reduce training bias.
- Inclusive Design: Engage healthcare workers, ethicists, and patient groups in design/testing.

3. Transparency Requirements

- Explainable AI (XAI): Use interpretable models or tools (e.g., SHAP, LIME) to clarify predictions.
- Audit Trails: Maintain decision and data access logs for accountability.
- Open Communication: Clearly communicate limitations and uncertainty.
- Governance Oversight: Form an ethics board to assess AI tools regularly.

Conclusion:

This guideline ensures AI in healthcare supports equitable treatment, safeguards patient rights, and aligns with public trust and ethical governance. Responsible development and deployment of AI tools will contribute to a healthcare system that is both innovative and just.