Fair vs. Unfair Outcomes Comparison
Provide two versions of a model output (fair and biased). Identify what changed and why it is more ethical.
(Focus: investigation, small experiments, structured thinking)

Here is a clear, simple, and *viva-friendly* answer for the **Fair vs. Unfair Outcomes Comparison** activity:

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## Fair vs. Unfair Outcomes Comparison

### Scenario:

A loan approval model predicts whether a person should get a loan.

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## Unfair (Biased) Model Output

**Input:**

- Income: ₹40,000/month
- Credit Score: 750
- Past Loan Repayments: Good
- **Gender: Female**

**Biased Model Prediction:** ❌ *Loan Rejected*
**Reason (unethical):**
The model incorrectly uses **gender** as a factor. Even though the applicant meets financial criteria, the model rejects the loan due to bias in the training data.

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## Fair (Ethical) Model Output

**Input:**

- Income: ₹40,000/month
- Credit Score: 750

- Past Loan Repayments: Good
- **Gender: Female (ignored as it should be)**

**Fair Model Prediction:** ✔ *Loan Approved*

**Reason (ethical):**

The model only uses **relevant financial features** such as income and credit score. Sensitive attributes like gender, religion, caste, or age are **removed** so the decision is based purely on financial ability.

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## What Changed & Why It Is More Ethical

| Aspect | Unfair Model | Fair Model |
|---|---|---|
| **Use of Sensitive Data** | Uses gender → creates discrimination | Removes or ignores gender |
| **Decision Basis** | Influenced by bias in historical data | Based only on relevant features |
| **Outcome** | Equal applicants get different results | Equal applicants get equal treatment |
| **Ethical Standard** | Violates fairness & equality | Promotes unbiased and transparent decisions |

### Why It Is More Ethical:

- Protects individuals from discrimination.
- Ensures equal opportunity for all applicants.
- Builds trust in AI systems.
- Follows fairness guidelines like **non-discrimination, transparency, and accountability**.

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If you want, I can also turn this into a **diagram**, **presentation slide**, or **short exam-ready paragraph**.