Risk Description	Impact	Likelihood	Mitigation / Action
Noisy or incomplete review data	Medium	Low	Apply data cleaning, deduplication, and validation checks during preprocessing.
Imbalanced sentiment classes	High	High	Use class weighting, oversampling techniques, and monitor per-class performance metrics.
Lower accuracy on Spanish reviews	Medium	Medium	Use language detection and apply either a separate Spanish pipeline or lightweight translation.
Model underperforms or overfits	High	Medium	Use cross-validation, start with simple models, and track validation metrics to detect overfitting early.
Weak recommendation quality	Medium	Medium	Tune similarity metrics; implement a popularity-based fallback for cold-start users.
Django app slow due to model size or inefficient queries	Medium	Low	Cache model objects, optimize database queries, and add DB indexes.
Insufficient time/ resources for advanced features	High	High	Prioritize core system components; freeze scope early; implement optional features only if time remains.
Fairness issues across languages or product categories	High	Medium	Evaluate fairness metrics; retrain or rebalance data if disparities exceed thresholds.
Library or version conflicts	Medium	Medium	Pin dependency versions using `requirements.txt` or lockfiles; test setup in a clean environment.
Database integration or migration errors	Medium	Medium	Test schema early; validate migrations regularly; maintain DB backups.