Scenario Based Ans –Recommendation

1.Retail Store-Feature salaction for sales Forcasting:

1.Perform correlation annalysisand remove data with very low correlation.

2. Do RFE with a Regression model to rank features.

3.Do Lasso Regression to penalize less important variables.

4.Do cross-validation and retain only the features get to high R2 scores.

2.Podcast App-Recommend Based on Listener Profiles:

1.Convert Podcast data like categories,hosts,length into feature vector

OneHotEncoding.

2.Represent each user by averaging the vectors of podcast they have listen

3.Do cosine similarity between user and available podcasts to rank and recommend.

4.Filter out already played episodes to avoid repetition.

3.Manufacturing:Firm wants to predict machine failure

1.Remove features with values or high missing values.

2.Ues mutual information to evaluate feature relevance with the failure label.

3.Apply RandomForest to get feature importance.

4.Select high-rankes features that contribute most to reducing entropy in the target.

4.Fashion App:Personalizes Outfit Reccommendation

1Do.OneHotEncoding-Encode-style,color,brand,season,

2.Track user interactions and assign weights.

3.Create a user profile vector and compute similarity with new outfit vectors.

4.Rank and recommend top N items using cosine similarity or Ann search.

5.Healthcare: Selecting Features for Heart Disease Prediction

1.Do exploratory data analysis to remove irrelevant columns.

2. Use SelectKBest to rank features bases on ANOVA scores.

3.Do cross-validation with LogisticRegression and Decision Tree to validate feature importance..

4.Keep the top 10-15 features with the highest predictive power.

9.Job portal:Recommendation Based on Resume and Past Application

1.Convert resumes and job descriptions to vector form using TF-IDF or BERT

Embeddings.

2.Compare user profile vector with job vectore using cosine similarity.

3.include application history and feedback to refine recommendations.

4.Regularly update the model as users apply to new roles.

7.IoT Devices:Feature Selection for Energy Usage Prediction

1.Do PCA to reduce dimensionality

2.Analyze Variance ratios to determine the number of components to keep.

3.Use tree based feature importance scores for interpretation.

4.Train regression models with reduced features and compare RMSE.

8.E-Learning-Recommend Turorials based on skill Gaps

1.Map tutorials to skill using tags.

2.identify skills the learner struugles with based on quize results.

3.Reccomend tutorials matching the weak areas using content fitreing.

4. Use engagaement data to personalize further.

9.Social Media: Seecting Features to Predict Engagement

1.Use feature importance from Gradient Boosting to find the top contributors

2.Drop highly correlated or low – variance features.

3.Use backward feature elimination with cross-validation.

4.Keep features that generalize well and avoid overfitting.

10.Create and Register an App

Step1: python manage.py startapp attendance

Step2:Add ‘attendance ‘to INSTALLED_APPS in settings.py

Explanation:

1.Open the terminal and ensure We are inside the project folder.

2.Run:python manage.py startapp attendance

3. Open student portal/settings.py.

4.In INSTALLED_APPS,add this line:

-> ‘attendance’,